The NT separate hospital primary care and bush stuff...training outcomes are fragmented where every little bit does its own thing once they go beyond MBBS. No one sees themselves as the NT medical workforce. Queensland sees the whole country as the workforce. The NT just sees the NT... We need career paths that are vertically integrated, not just part of any process. We need to move RMOs to get experience...We need workforce reform that includes what nurses do...in remote we work as a team...we need generalists rather than specialists (R6).
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Glossary of terms

AMA – Australian Medical Association
AMC – Australian Medical Council
AMS – Aboriginal Medical Service
ACCHO – Aboriginal Community Controlled Health Organisation
ACRRM – Australian College of Rural and Remote Medicine
AIM – Adult Internal Medicine
AMSANT – Aboriginal medical Services Alliance of the Northern Territory
ASH – Alice Springs Hospital
Berrimah Line – Communities south of the outer Darwin suburb of Berrimah
CA – Central Australia
CBME – Community Based Medical Education
CDU – Charles Darwin University
CoAG – Committee of Australian Governments
CS – Case study
DCT – Director of Clinical Training
DoHA – Department of Health and Ageing, Australian Government
Elective – a short-term placement selected and undertaken by a medical student
Flinders – Flinders University of South Australia
FTE – Full time equivalent
GP – General Practitioner
GPET – General Practice Education and Training
GPPHCNT – General Practice & Primary Health Care Northern Territory
JCU – James Cook University
JFSS – John Flynn Scholarship Scheme
JMO – Junior Medical Officer
Junior doctors – Doctors in their first two years post graduation
IMET – Institute of Medical Education and Training
IMG – International Medical Graduate
Intern – a doctor in their first year since graduation
Mini CEX – Mini Clinical Evaluation Exercise
MRBS – Medical Rural Bonded Scholars
Medical student education – those undertaking education in a university based undergraduate or post graduate medical education program
NTCS – Northern Territory Clinical School
NTRCS – Northern Territory Rural Clinical School
NTDHCS – NT Department of Health and Community Services
NTGPE – Northern Territory General Practice Education
OTD – Overseas trained doctor (same as IMG)
RCS – Rural Clinical School – conducted by Flinders University
Prevocational training – those doctors in post graduate years 1-2, who have not yet enrolled in
a vocational training program as generalists or specialists.
PGMC – Post Graduate Medical Council
PGPPP – Prevocational General Practice Placements Program, which provides PGY 1 - 3 doctors
to gain exposure to rural and remote practice
PGY – post graduate year
RACGP – Royal Australian College of General Practitioners
RMP – Rural Medical Practitioner
RDH – Royal Darwin Hospital
RMO – Resident Medical Officer
RRMA – Rural Remote Metropolitan Areas (Geographical classification system)
RUSC – Rural Undergraduate Support Coordination
RVTS – Remote Vocational Training Scheme
Selective – a short-term placement or rotation chosen by medical students from within a given
range
SMO – Senior Medical Officer
SoM – School of Medicine
Vocational training – those doctors who are enrolled in generalist or specialist training program.
Registrar – a doctor who is undertaking a specialist or general practice training program, also
known as a trainee.
Trainee – a doctor undertaking a specialist or general practice training program, also known as
a registrar.
EXECUTIVE SUMMARY

The Northern Territory offers a rich training environment for its medical workforce with pathology usually only seen in other countries. Yet there is no medical school, a small number of doctors, a small dispersed population, a high Indigenous population, challenging geographical and climatic conditions, one large urban centre and a number of small regional hospitals staffed by large numbers of international medical graduates (IMGs). These elements create challenges for those providing and undertaking medical education and training. The Northern Territory Department of Health and Community Services (NTDHCS) wanted to establish a more cohesive and coordinated approach to the provision of medical education and training to improve supply, flexibility and responsiveness, in line with national initiatives. In July 2007, they commissioned RhED Consulting Pty Ltd to undertake an 8-week review of medical education and training across the NT.

The methodology included: reviewing the relevant literature, mapping the 37 identified providers of medical education and training and their activities; conducting interviews with 102 stakeholders, 2 focus groups with medical students and registrars, and 3 cases studies with program participants; and surveying the 14 feeder universities with medical students undertaking placement in the NT. The material was collated and analysed into a draft written report. The report mapped the activities occurring, identified the strengths, weaknesses, barriers, gaps and areas of duplication in the current system, which was divided into 4 sectors for manageability – medical education, prevocational training, vocational training and continuing professional development. Common themes were then identified. A team of four external medical advisors, representative of the four sectors of medical education and training, then met with the two consultants and a strategy was developed to address the issues identified. These were then fed into this report with recommendations regarding implementation and prioritisation.

The main findings were that the current system of medical education and training in the NT is based on a ‘silo’ model designed for larger states, which have different populations, health care needs and medical education and training infrastructures. There was a perceived lack of leadership and coordination, a focus on the workforce as opposed to education, duplication in the medical student sector and significant gaps in the prevocational sector. Serious concerns were raised regarding accreditation of intern training at the Royal Darwin Hospital and there were no accrediting structures in place to deal with these issues, amid high numbers of international medical graduates (IMGs), who are poorly supported. This situation provides the NTDHCS with an opportunity to design an innovative medical education and training structure to meet their particular needs. Making use of different workforce models also fits in with the
cultural change that is occurring nationally and internationally due to the changing health care needs of the population as it ages and chronic disease increases \(^{(1, 2)}\).

**The mapping process** identified 37 different providers of medical education and training in the NT, excluding those in general practices and Aboriginal Medical Services (AMSs). Mapping of the medical student sector was a complex task, due to the 23 identified providers of students, programs and funding streams. These appear to have moulded the identity of the two clinical schools rather than the role they undertake. The imprint they make, and their roles, is unclear to those providing medical education and training outside of the two clinical schools. Considerable tension existed between the two groups organising medical student placements, and NTDHCS policy to manage this process appears to be developed on the run. Given the increasing demand for student placements in the NT as well as the projected influx of students in the future, this situation is not considered sustainable in the long term.

Mapping the prevocational and vocational training sectors identified the multiple silos providing medical education and training – 5 hospitals, 9 different colleges and 8 other organisations, with the full range of silo based accreditation and training post accreditation requirements. NTGPE was singled out as an organisation that was working well across all sectors, with new opportunities arising for another pathway to vocational recognition through the *Australian College of Rural and Remote Medicine*. The continuing professional development activities for the medical profession also identified multiple providers, particularly in the general practice sector where there were also some areas of duplication.

Stakeholders identified the fascinating medicine and the lack of hierarchy between students, junior doctors and consultants as the greatest strengths of the current system in the NT.

**The major barriers** identified to achieving a cohesive, efficient and well-coordinated medical education and training across the NT, were the lack of workforce numbers, support and resources for training, and the poor coordination that currently exists. A low priority was also placed on education and training, there was a poor vision about how to provide it effectively, especially in the pre vocational sector. This was fragmented by distance, funding and by the accreditation requirements of the numerous Colleges.

Three specific **barriers to retaining the workforce** were identified. The way in which training posts are structured, and specialty trainees are employed, provides a barrier to the needs NT Indigenous population and requires further investigation. The multiple layers of supervision and training create another barrier and streamlined approaches that support the supervisors and meet the training requirements require further investigation. The third barrier
relates to pay and conditions, which were described by many respondents as being the second lowest in Australia, particularly for specialists. Issues such as salary packaging, study leave, and a full package that attracts and retains staff require further investigation. Models to overcome each of these barriers are described in this report.

**The greatest areas of duplication** identified were overwhelmingly in the medical student sector, particularly the student placements and in the provision of cross-cultural education. The current way in which these valuable and scarce Indigenous resources are being utilised within the medical arena requires review, as opportunities for coordinated high quality interprofessional approaches are being missed. Cross cultural education is the area where the NT could take the lead nationally.

**The major gap** identified was in the prevocational sector where serious concerns were raised regarding the ‘provisional’ accreditation of intern training at the Royal Darwin Hospital, no accrediting body in the NT for the past two years, the role of the Director of Clinical Training and insufficient fractional appointments to deal with these important roles. The time allocated for this position in Alice Springs was also regarded as insufficient. Other gaps were identified in the quality of junior training provided, little understanding of the new national junior doctor curriculum framework, poor coordination of training, the lack of release time for training, no dedicated training budget and poor pay and conditions. These factors place the recruitment and retention of junior doctors in the NT at risk. These are serious issues and need to be addressed by the NTDHCS as a matter of urgency.

The second significant gap identified was in the training and support offered to the IMGs who come to Australia expecting training and career pathways. A significant reduction in the number of IMGs applying to work in Australia has been reported by the workforce agencies recruiting them and this may have an impact on the NT being able to attract them in the immediate future \(^{(3)}\). We believe there is an opportunity here for the NT to consider different models that would provide IMGs with support, and innovative career and training pathways. Two such models have been provided in this report.

**Lack of leadership** was a significant issue identified with 38 per cent of the respondents stating no one was the leader, and 28 per cent stating the NTDHCS was the leader of medical education and training in the NT, yet those from the NTDHCS did not see it as their core business. This is an important finding as it indicates an inability for those in training, and those providing it, to coordinate training efficiently and effectively for the small numbers of doctors and resources.
To assess the **appropriateness of the training** provided in meeting the NT’s needs, respondents were asked to rate four aspects of it. They indicated that the training was 67 per cent appropriate in supplying doctors who meet the health care needs of the NT population; that it was 64 per cent appropriate in meeting their educational expectations; 45 per cent appropriate in providing a suitable workforce for the NT; yet only 23 per cent appropriate in meeting the needs of the IMG workforce.

The NT has the **opportunity** to create a unique NT model of medical education and training that will grow its own workforce, seize opportunities to develop centres for excellence in generalist procedural medicine, Indigenous and remote health, and to join with other neighbouring countries to achieve this through innovation.

To meet the diverse needs of the NT there is a need for structural change so that there are clearly defined roles and responsibilities for the various education providers, streamlined accreditation processes, clear coordination of student placements and strategies that strengthen the retention of the existing workforce, particularly IMGs. The system must build on its strengths to ensure that it runs efficiently and effectively and provides cohesive leadership across all sectors of medical education and training.

The following recommendations, supplemented by the model described in Chapter 5 of this report, will assist the NTDHCS to grow the NT medical workforce through a cohesive, transparent and well-coordinated process for the 21st century. We wish them every success.
RECOMMENDATIONS

1. The NTDHCS establish a small high-level working party to consider the findings of this review and to manage the processes to implement the strategy and recommendations outlined in this report.

2. This report is disseminated to those providing medical education and training in the Northern Territory.

Accreditation issues

3. A joint Accreditation Committee be funded and established as a matter of urgency.
   a. Their role would include undertaking the 3-4 yearly accreditation of junior doctor education and training processes for the two major NT teaching hospitals, and any associated monitoring role and responsibilities.
   b. That the Committee membership consists of no more than 10 members and is chaired by a NT member. The Committee be made up of 5 members from the NT, including one representative of the NT Medical Registration Board and 5 members from either
      i. an existing PGMEC from another state, such as NSW, Qld, or SA;
      ii. five members identified through an external tendering process;
      iii. though appointments made based on expertise.
   c. The NTDHCS requests an extension of its accreditation of intern training at the RDH for a three-month period, as a matter of urgency. That this request is based on being able to implement the recommendations of this review.

Coordination issues

4. A NT wide Directorate of Education and Training be established with a focus on education and training. (Refer to outline and description on pages 51-56).
   a. This should be an independent appointment that reports directly to the NTDHCS Chief Executive Officer and the NT Minister of Health, to avoid potential for conflict between the numerous interested stakeholders.
   b. The role of this Directorate is to focus on education and training NOT workforce issues, or its intent will be lost. The Directorate should NOT be seen as yet another layer of hierarchy, or another silo, but a flat structure developed to facilitate and coordinate the movement of medical education and training through the pipeline from the university sector, through to the prevocational level and the vocational training sector into CPD.
c. The Directorate could be funded through a combination of funds from those providing medical education and training in the NT and through the reallocation of funds for those positions that would be restructured in this process. This could be done on a ratio for service basis.

d. Irrespective of the funding sources this initiative is seen as the core to the success of this strategy.

5. That the NTDHCS establish a workforce database of all medical staff in the NT and put processes into place to ensure it is updated, accessible and maintained.

**Medical Student issues**

6. A two-day medical education summit, attended by the decision makers and leaders of medical education is held in early 2008. The purpose of the summit is to determine the structure for a sustainable, realistic, workable model for medical student education for 2012 in the NT. (See page 60 of this report for details).

   a. The summit is externally facilitated to avoid the potential for conflict between the many interested players.
   
   b. Two alternative and innovative models that warrant further investigation and should be presented, as a minimum, for discussion at the summit. These are outlined in chapter 5 of this report.

7. The NTDHCS develop a policy on the prioritisation of medical student’s placements that reflect interprofessional learning opportunities.

8. The NTDHCS consider an incentive process for highest priority medical students, where they are automatically offered an internship as part of their placement contract.

9. That a longitudinal database of all medical students of NT origin be linked with hospital records so that NT origin students can be easily identified in the hospital sector.

**IMG issues**

10. That the NTDHCS, through the Directorate of Medical Education and Training and in collaboration with the Colleges and other providers, develop a career pathway for NT IMGs that places value on the contribution they are making. That the model developed:

   - provides clear training and career pathways for IMGs
- considers the potential changes by the AMC in their introduction of the competent authority and the standard pathways
- includes pastoral care, family support and professional support mechanisms
- is a package that assists IMGs in overcoming the barriers to staying and places value on the contribution they are making
- explores the option of having joint training standards with other countries such as the UK, to enable IMGs to have their training time in Australia counted in the UK
- considers supervision training, arrangements and support
- identifies sources of funding to support and implement this initiative.
CHAPTER 1. INTRODUCTION

In June 2007, *RhED Consulting Pty Ltd* was commissioned by the *Northern Territory Department of Health and Community Services* (NTDH&CS) to undertake a review of medical education and training across the NT. They wanted to establish a more cohesive and coordinated approach to the provision of education and training of the NT medical workforce. The review included all medical education and training sectors. The purpose of the consultancy was to develop a strategy to coordinate medical education and training across the NT in order to improve the supply, flexibility and responsiveness of the NT medical workforce, taking advantage of recent national and local workforce initiatives.

1.1 Terms of reference

The terms of reference were to:

1. Map current education and training providers and activities available to, and provided for, the medical workforce across the NT.

2. Provide an analysis of the efficiency, effectiveness and appropriateness of current education and training programs and activities in meeting student and community needs including identification of what is working well and where there is duplication and/or gaps.

3. Recommend options for a more cohesive and coordinated approach to the provision of medical education and training across the whole of the NT including (a) identification of key roles and responsibilities of government, training providers, professional associations and non-government employers and (b) development of clearer pathways between hospital and community training institutions.

1.2 Background – Literature overview

1.2.1 The national picture

There were 56,300 medical practitioners working in Australia in 2005 making up 12 per cent of the total health workforce (2). Seventy nine per cent work in major cities and 14 per cent work in large inner regional areas (4). The areas where the most significant maldistribution occurs is rural and remote areas, where approximately 30 per cent of the Australian population live (5). The Australian Government have initiated numerous programs and incentives to encourage doctors to move to rural and remote areas including restricted provider numbers, the *More doctors for the bush* program, hundreds of undergraduate bonded scholarships and the
establishment of 8 new medical schools in the past 7 years, which will result in significant increase in medical graduates over the next decade \(^6\). There has also been a five fold increase in the number of overseas trained doctors in the past decade who now make up approximately 25 per cent of the overall Australian medical workforce \(^2\).

A cultural change has also occurred in the Australian medical workforce in the past 20 years. There are a higher proportion of women entering medical schools, making up more than half of the medical student numbers, a tripling of medical subspecialisation due to technological developments and the impact of generation Y who place a higher priority on lifestyle than on a long term career in one place \(^7\). These factors combined have resulted in a greater focus being placed on quality of care and patient safety, and a push from junior doctors for safer and shorter working hours \(^7,8\). General practice has also moved towards increasing corporatisation to form super-clinics that offer urban Australians a wider range of health services \(^8\). Medical workforce supply and retention continues to be one of the most serious health workforce problems facing our governments.

In June 2004, the Council of Australian Governments (CoAG) commissioned a paper on health workforce issues. In December 2005, the Productivity Commission released its Research Report *Australia’s Health Workforce* \(^2\). The report identified the major challenges facing the health workforce and the need for systemic reform to workforce and health education structures. In response, CoAG made a number of decisions in relation to the health workforce. These included the establishment of a Health Workforce Taskforce, uniform national registration standards and accreditation arrangements for health professions, a national scheme for the assessment of International Medical Graduates, the establishment of a system for the training of medical specialist trainees and education programs for rural and remote areas \(^2\).

**1.2.2 The Northern Territory picture**

There are approximately 440 medical practitioners working in the Northern Territory of whom approximately 33 percent are overseas trained \(^9\). There are several factors that make it a distinctive training environment. The NT has a small, dispersed population of 200,000 with 0.1 person per square kilometre, compared with the national average of 2.6 persons \(^10\). There is one major urban centre, Darwin, which houses over 110,000 people, a few small regional centres and a large number of remote and very remote centres. The entire NT, outside of Darwin is classified as remote with geographical classification ratings of RRMA 6-7 \(^11\). The Central Australian Region of over 830,000 square kilometres has a population of 46,000 people of whom three quarters live in Alice Springs or Tennant Creek, the remainder are scattered throughout 45 remote communities and outstations \(^12\). Both the long distances and the desert climate frequently provide challenges to travel to these remote communities. In the Top End of
the NT the full range of climatic conditions are also experienced, often making it dangerous to provide services and evacuate seriously ill people from remote communities. Over one third of the total NT population is Indigenous, of whom almost half live in remote and very remote areas and suffer extremely high levels of preventable chronic disease (13, 14). While this provides a fascinating training environment where medical students and practitioners are exposed to a full range of medical pathology, public health, cross-cultural experiences and infectious diseases, which would usually only be found in overseas countries, it also provides significant challenges for the NT Government in providing equitable health care services to all of the NT population.

**Indigenous health status**

Indigenous Territorians suffer the worst health status in the world on some indicators, in particular diabetes, cardiovascular disease and renal disease (15-17). These reach epidemic proportions in some remote parts of Australia, especially in the 1216 discrete very remote Indigenous communities, which house some 108,085 people nationally (18). This is approximately one quarter of the total Australian Indigenous population, of whom over half live in the Northern Territory (19-21). In remote communities Indigenous infants and children suffer 3.9 times the rate of respiratory disease, 3.6 times the rate of skin infections, 5 times the rate of intestinal infections and have extremely high rates of otitis media resulting in hearing problems prior to starting school, when compare with other Australian children (15). The proportion of low birthweight in NT Indigenous newborns was 13-15 per cent in the five years from 1998 to 2002, which is about double that for non-indigenous newborns (22). These factors are compounded by poor environmental health conditions, a lack of basic housing maintenance, overcrowding, unsafe water supply, lack of rubbish disposal and the highest national sewerage overflow rate (23). Distance, isolation, lower incomes, poor educational opportunities, meagre housing and minority status all exacerbate the experience of discrimination, harassment and a lack of services (24).

To put the health status of NT Indigenous peoples into perspective, between 2000/01 and 2002/03, excluding day admissions for renal dialysis, about 7 per cent of NTDHCS hospital resources were used for hospitalisations directly caused by acute manifestations of chronic diseases. When renal dialysis is included this accounts for approximately 45 per cent of hospital resources spent on chronic disease related hospitalisations (25, 26).

**NT Medical Workforce Initiatives**

The NT is also the only Australian state or Territory without its own medical school. There exists a diverse and full range of medical education and training providers trying to meet the needs of the multiple medical accreditation requirements and training standards, which are
largely based on a national model. The NT therefore has a limited ability to train and grow its own medical workforce, although it has initiated a number of innovative initiatives to deal with these issues. These include, but are not limited to:

- the establishment of the NT Clinical School some ten years ago, where small numbers of students from Flinders University (SA) and James Cook University (Qld) undertake significant parts of their medical education in the NT
- the establishment of the NT Rural Clinical School two years ago, where these and other medical students undertake placements in rural community-based placements
- the establishment of student quotas for NT origin and Indigenous students
- establishing NT Government scholarships for NT students to undertake their medical education
- welcoming significant numbers of interstate medical students, from numerous universities, to undertake long and short term placements in the NT in the hope that they will return
- attracting large numbers of overseas trained doctors to meet workforce needs
- establishing respected research institutions, such as the Menzies School of Health Research and the Cooperative Research Centre for Aboriginal Health
- developing strong links with the Aboriginal community-controlled sector
- developing innovative models for remote primary health care practice across the disciplines.

These initiatives have paid off, with a reported 54 per cent of NTCS students completing their intern year in the NT and 70 per cent of quota students; plus significant demand for student placements (27).

**International Medical Workforce**

To deal with the undersupply of doctors in the NT, the NTDHCS has bolstered its workforce with International Medical Graduates (IMGs) who now make up approximately 33 per cent of the entire NT workforce. Many IMGs provide services, on geographically restricted Medicare provider numbers, in areas of workforce need and have provisional medical registration, while they complete the variety of immigration hurdles and AMC examinations necessary for full registration. While these issues focus on the needs of the medical profession, what IMGs want is not just to work in Australia but the whole package – registration, training and a career pathway that is clear, transparent and organised and support programs that assist them and their families to adjust (3). A new phenomenon has occurred in the past few months, which will have a significant impact on the supply of IMGs. Workforce agencies are reporting a dramatic drop of over 70 per cent in the number of overseas doctors applying to work in Australia (3). While IMGs were seen as a temporary solution, Australia now competes for doctors with other
western industrialised countries that also have doctor shortages and needs to provide what IMGs want to attract them in the future (3).

All the above factors combine to offer a unique training environment where trainees are exposed to fascinating medicine, but they also present significant challenges for the NT in the provision of education and training for all levels of its medical workforce. Innovative thinking is required to develop and implement effective education and training that will encourage medical graduates, medical officers, specialist trainees and specialists to enter and remain part of the medical workforce in the NT.
CHAPTER 2. METHODOLOGY

The methodology used to undertake this review had four distinct phases.

2.1 Phase 1. Establishment

Phase 1 consisted of establishing the review team and undertaking a briefing with the NTDH&CS Project Advisory Group to clarify the proposed methodology, timeline, roles, stakeholders, project processes and agreeing on the reporting process, which was used to formulate a final project plan.

A search was undertaken to identify core literature to inform the review and identify what data needed to be collected from the medical workforce, the providers of medical education and training in the NT, and the mapping process. The development of a stakeholders list provided particular challenges due to the lack of a NTDHCS database of the providers of medical education and training and the workforce. While a list was provided, it was limited. The consultants then used a snowballing method of identifying stakeholders, which consisted of identifying the specific stakeholder groups, those known to them and asking these stakeholders to identify others they thought should participate in the review. A comprehensive stakeholders list was developed and areas where gaps were identified were targeted.

This phase resulted in a finalised methodology, project plan, list of stakeholders and timeline for quality results.

2.2 Phase 2. Mapping and Consultation

Phase 2 consisted of 3 steps.

**Step 1 – Mapping the current medical education** landscape to develop a list of providers and the activities available to, and provided for, the medical workforce across the NT. This proved to be a complex process as there were some 37 different providers identified, some discrepancies in the information provided, and some areas of duplication, especially in the undergraduate sector. To make this process manageable for analysis the mapping process was divided into four distinct groups:

1. Medical student education
2. Prevocational medical education and
3. Vocational training
4. Continuing professional development.
The mapping process was undertaken throughout the duration of the consultancy and where possible checked with the providers to ensure that the interpretation was accurate. Despite this, discrepancies were identified in the undergraduate sector. Refer to Chapter 3 for the detailed results of the mapping process.

**Step 2. Developing the tools**

Four tools were developed to collect the information to inform the review. The four tools were:

1. An interviewing questionnaire – for key stakeholders, which was adapted as required for the providers, employers, educators and the workforce. Refer Appendix 1.
2. A survey – for feeder universities who provide students for placement opportunities. Refer Appendix 2.
4. A focus group demographic sheet – to collect demographic data from focus group participants. Refer Appendix 4.

Each tool covered six core reporting areas, to enable triangulation and analysis of the results:

1. Program overview – the medical education and training offered and how it is implemented
2. Efficiency – how it is funded
3. Effectiveness – coordination, duplication, gaps and pathways between the hospitals and the community
4. Appropriateness – the strengths, weaknesses and barriers
5. Delivery modes – for providers only
6. Concluding section – areas for improvement and to elicit ideas and priorities.

Refer Appendix 1 – Interview Questionnaire.

**Step 3. Conducting Interviews with key stakeholders**

During 14th – 27th August three consultants visited Darwin, Alice Springs, Nhulunbuy, and Katherine to conduct face-to-face interviews. Telephone interviews were also conducted with those in remote sites, and those who were not available at this time. A total of 106 people were interviewed face to face or via the telephone using the semi-structured interview questionnaire. Some were undertaken individually, or in pairs, and a small number were undertaken as small group interviews. The small groups were particularly with those who represented the same provider working in different locations, for example: hospital medical superintendents. The majority of the interviews were recorded, with consent, and hand written notes were taken. A few of the key stakeholder tapes were transcribed to ensure specific issues were elicited. Due to the time restraints and budget it was not possible to transcribe them all.
A summary of the daily consultation process was also kept and these were useful in assisting the consultants to identify the common themes and to interpret the results.

The stakeholders represented:

- NT Government – NTDHCS staff – policy, workforce, hospitals, community sector, and administrators
- NT Clinical School, the Flinders University Rural Clinical School
- Department of Health and Ageing
- Specialist Colleges represented in the NT, the AMA, or their NT representatives
- GP training organisations – NTGPE, Divisions of General Practice – NTPHC those providing continuing professional development and those who are NT based
- Australian Defence Force
- Aboriginal Community Controlled Health Organisations – AMSANT and members of their workforce
- The providers of medical student programs and scholarships
- The workforce – private practitioners, medical students, vocational trainees, prevocational trainees, specialists across the disciplines, International Medical Graduates (IMGs) who were not be in vocational training programs, or from outside the NT. These doctors were specifically targeted to ensure there was an adequate representation of their views.

Focus groups were conducted with two groups – medical students and junior doctors – to flesh out the specific medical education and training issues of these particular groups. These were tape recorded with consent and added to the data to add richness.

Three case studies were undertaken with – an undergraduate on placement, a junior hospital based doctor who was overseas trained, and a GP registrar – to identify and illustrate the effectiveness, or best practice models, of medical education and training occurring in the NT. These were tape recorded with consent and transcribed verbatim. They were then added to the data to draw out specific issues for those undertaking training.

Surveys with feeder universities

A survey, which was based on the six core reporting areas, was distributed to the 14 feeder universities to identify issues of coordination of student placements in the NT and to elicit any concerns. The response rate was 79 per cent (n=11). Follow up telephone interviews (n=6) were conducted with those who fund the specific programs that support students during their placements – RUSC, bonded scholars etc.
A verbal progress report was provided at a meeting of the NTDHCS Advisory Committee at the end of the consultation process in Darwin, towards the end of August.

### 2.3 Phase 3. Collation and analysis of data

The data from the semi-structured interviews was hand collated and common themes were identified using the six core reporting areas. The two consultants did this separately and then one combined these data, identified the common themes, interpreted the results and both contributed to the development of the written report.

To enable a map of medical education and training providers to be developed materials were collected throughout the consultation process, sourced via websites where possible, and through specific requests to individual stakeholders. These were then combined, interpreted and checked with the source for accuracy, where possible. This led to the development of a matrix of the providers undertaking medical education and training in the NT, their activities, how they coordinate these programs and showing what is working well, what is not, and where there is duplication and/or gaps. They were divided into five areas:

1. Medical student education providers
2. Prevocational education providers
3. Vocational education providers
4. Continuing professional development education providers
5. Accreditation groups. While many of the stakeholders were not direct providers of medical education, there appeared to be some confusion about the number of accreditation providers and their roles. It was therefore thought to be a useful process to assist in informing the NTDHCS.

The focus groups and case studies were transcribed verbatim and used to inform and flesh out the specific training issues for those undertaking training.

An incomplete draft report was then developed and distributed to the RhED Consulting team to inform the development of a strategy for change.

### 2.4 Phase 4. Strategy Development Phase

Phase 4 consisted of developing a proposed strategy based on an analysis of best practice literature and the findings of the review. A face-to-face meeting of the RhED Consulting team was held on 17th September 2007 in Townsville to review the results and develop the strategy. The core issues and findings were presented and discussed. The team then developed a potential model, based on the three main sectors of medical education and training.
It describes:

- A map of current NT providers of education and training activities, identifying areas of duplication and gaps
- A strategy for the future, which:
  - outlines the key roles and responsibilities of all training providers and government
  - builds on what is working well
  - seizes opportunities to refocus on education in training as opposed to workforce issues
  - deals with the coordination aspects of medical student placements, the potential impact of the increasing demands for student placements, and the needs of the IMG workforce in particular
  - builds the capacity of the NT in meeting the needs and improving the supply, responsiveness and retention of the medical workforce
- A clearer pathway between the hospitals and the community training institutions, and
- A list of recommendations regarding an improved coordinated and cohesive approach to the provision of medical education and training across the whole of the NT, and an outline of the processes required to do so.

**Limitations**

*Time and budget.*

This review was undertaken in an 8-week timeline with limited resources for what was required. The duration of the review meant that information such as putting together a complete and comprehensive list of stakeholders, setting up the interviews and making travel arrangements had to be done in an extremely short timeframe. This meant that some stakeholders were not identified until late in the consultation process and follow up interviews were required. The list provided by the NTDHCS was also very late and contained largely NTDHCS staff. Stakeholders who wanted to be interviewed therefore contacted the consultants throughout the consultation process, increasing greatly the expected number of interviews.

Accurate staffing numbers at Alice Springs Hospital were difficult to obtain due to continual staff changes during the consultancy.
CHAPTER 3. MAPPING THE CURRENT EDUCATION AND TRAINING PROVIDERS

There are multiple providers of medical education and training across the NT and numerous program funding silos within them. In order to provide a comprehensive map the four main areas of current medical education and training across the NT are divided into the following sectors:

1. Medical student education
2. Pre vocational training
3. Vocational education and training
4. Continuing professional development.

Also mapped are the numerous accreditation requirements for each group, as these are complex and at times during the consultation process they appeared poorly understood by those managing medical education programs.

3.1 Medical Student Education

The NT does not have its own medical school. Yet it possesses a fascinating medical education environment, where a number of initiatives have been developed to enable medical students who are from the NT, and those interested in what the NT environment has to offer, to undertake parts of their degree programs, or placement opportunities, in the NT. While all of these programs aim to provide students with opportunities to understand and experience rural and remote health in Australia, they also have the long-term aim of encouraging students to pursue their medical careers in the NT. This is particularly so for the NT Clinical School and NT Rural Clinical School programs, which were specifically designed to address workforce supply in the NT.

3.1.1 Medical Student Education Programs in the NT

Medical students can undertake some components of their medical degree in the NT as part of the following programs (Refer to Appendix 5 for program details):

1. **NT Clinical School** – Years 3 and 4 of the Flinders University Graduate Entry Medical Program (GEMP) based at NT Clinical School (NTCS) in Darwin. The NTCS aims to recruit local (NT) and Indigenous students and act as a conduit to the NT medical workforce by providing interns for RDH, ASH and to longer term general practice and specialty positions in the NT.

2. **The NT Rural Clinical School** (NTRCS) – which is one of Flinders University’s four RCS sites. The NTRCS Year 3+4 program is available for Flinders University/NTCS
students and is based at the NTCS in Darwin with satellite campuses in Alice Springs, Nhulunbuy and Katherine.

3. **James Cook University** – Years 5 and 6 of the Undergraduate Medical Program based at the NTCS.

4. **RUSC placements** – as selectives or electives from medical schools of any Australian university (participating students are mostly in their clinical years of training).

5. **Scholarship holders** – Regular short-term rural placements for students in the John Flynn Scholarship Scheme (JFSS) and other Medical Rural Bonded Scholarships (MRBS).

6. **Electives** – from international medical schools.

### Table 3.1 Number of medical students in the NT

<table>
<thead>
<tr>
<th>Program</th>
<th>Numbers of students OR placements in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NTCS</strong></td>
<td></td>
</tr>
<tr>
<td>Yr 3 Flinders/NTCS</td>
<td>16 students (7 are NT residents) – whole year (max quota = 16)</td>
</tr>
<tr>
<td>Yr 5 JCU/NTCS</td>
<td>7 students – whole year (max quota = 8)</td>
</tr>
<tr>
<td>Yr 6 JCU/NTCS</td>
<td>5 students – whole year (max quota = 8)</td>
</tr>
<tr>
<td>Yr 3 Flinders/NTRCS</td>
<td>6 students – whole year these students are part of the initial Yr 3 group of 16</td>
</tr>
<tr>
<td>Yr 4 Flinders/NTRCS</td>
<td>4 students – whole year</td>
</tr>
<tr>
<td>Yr 4 Flinders – both NTCS &amp; non-NTCS</td>
<td>Approx 200 placements (electives/selectives) – 6 weeks (This equates to about 50 students doing a combination of electives/selectives)</td>
</tr>
<tr>
<td><strong>RUSC</strong></td>
<td></td>
</tr>
<tr>
<td>Other SoMs throughout Australia</td>
<td>Total of 170 placements – ranging from 2-8wks This includes 16 Flinders/NTCS Yr 3 GP placements, plus 61 JFSS in the NT, who are on 2 week placements for 4 consecutive years, and Approximately 2 medical students from international universities each year if any vacancies exist.</td>
</tr>
<tr>
<td>JFSS and other MRBS students</td>
<td></td>
</tr>
<tr>
<td>International medical students</td>
<td></td>
</tr>
</tbody>
</table>

The NTCS has a total of 32 students undertaking long-term placements of 1 year or more. This includes NTCS Flinders, JCU and RCS students.

There are over 370 short-term medical student placements occurring in the NT each year. Of these around 200 are in two hospitals – Royal Darwin Hospital (RDH) or Alice Springs Hospital (ASH) – and 170 are in rural or remote general practice, Aboriginal Medical Services (AMSs), or smaller regional hospitals in Katherine, Nhulunbuy and Tennant Creek. These placements are organised by different groups.
3.1.2 NT Quota Students

The Flinders program at the NTCS has an annual quota for NT origin residents of 10 students, and a quota for Indigenous students of 5. The concept of an NT quota is important in growing the local workforce to ensure long-term retention, the best use of resources and equity for rural and Indigenous groups. Respondents described the outcomes and priorities of these placements.

A 100 weeks of tuition = one student return (R14).

They (NTCS) have to bet on students who are good bets (for the NT) (CS1).

In 2007, 7 of the 16 Year 3 places were NT quota students. The target of 10 NT origin and 5 Indigenous students per year has never been met. The other feeder university JCU which has no quota, had approximately 40 NT students enrolled in their medical program at JCU indicating NT students are more likely to attend or be accepted at a regional university.

3.1.3 Funding sources

**NTCS** is funded by:

- NT DHCS $1,595,000 per annum – non indexed
- Flinders University of South Australia $250,000 per annum – non indexed
- JCU $170,000 – $200,000 per annum – agreement to be finalised.

**NT Rural Clinical School** is funded through DoHA for $1,400,000 per annum, plus $7.1M for infrastructure.

**RUSC Programs** are funded by The Australian Government, through the Department of Health and Ageing. It is believed that they contribute up to $17,000 for each Commonwealth assisted (HECS) student, to implement the parameters of the RUSC program, which are detailed in Appendix 6. In other states the medical schools administer the RUSC program. In the NT, in the absence of a medical school, NTGPE administer the RUSC program for all rural and remote general practice placements in the Top End and in Central Australia.

**John Flynn Scholars** (JFSS) and other **Medical Rural Bonded Scholars** (MRBS) are funded from DoHA. JFSS is managed at a national level by the Australian College of Rural and Remote Medicine (ACRRM) who outsource NT placements to the NTGPE. JFSS receive $500 per placement week to cover travel, accommodation and other placement costs. MRB scholars receive $20,000 per annum for the duration of their medical education, and are bonded to work for 3-5 years in rural areas after their vocational training years. Bonded medical places are different in that they get a place in a medical school but receive no particular funding to support them during their medical education.
NTDHCS scholarships are also offered by the NTDHCS to NT origin students to undertake medical education programs (TBA).

The above snapshot in Figure 3.1 indicates the number of medical students and education providers in the NT, the types of placements offered and the multiple funding arrangements to manage these students. It also demonstrates the complexity of the system for a small number of students and local providers. There are 20 arrows represented in the above snapshot, coming from a variety of bows. This means that there are a lot of strings attached, making the coordination of student placements overly cumbersome and resource intensive. Clearly a system that is centrally funded and enables medical student issues to be seen as one cohesive entity will be clearer to all stakeholders concerned. The current system where students are receiving different types of education, due to the way in which that component is funded, is resource intensive and not sustainable in the long term.

For a place with no medical school there are a large number of medical students doing some form of their medical course in the NT, whether it is a one 2-week placement or long-term programs of 12 months or more. Given these large numbers and the “tsunami of medical
students” that is predicted in the next five years, there will clearly be an increased strain on the facilities and the supervisors who take students in their clinical practice.

*The NT is friends with everyone and the beholder to no one when it comes to placements ...northern Australia will always be the net importer...it will always take others as it tries to attract the brightest and the best (R100).*

The NTCS and NTRCS, which sit together in the same building under the same management, receive funding from 3 very different jurisdictions all with differing accountabilities attached to the funding. This funding provides services for a total of only 32 medical students undertaking long-term placements, of 12 months or more, in the NT. The biggest financial contributors are government – NT DHCS and DoHA.

Flinders and James Cook University contributions, whilst smaller, are still significant. They undertake the university administration of their students and manage summative assessments, with the NTCS students sitting the same exams as their counterparts in Adelaide and Townsville.

With funding of $1.4 million per annum the NTRCS at the time of the review had 10 students, six of whom are already counted as part of the Year 3 Flinders/NTCS program. Whilst the DoHA target of 8-16 students placed in RCS teaching sites per annum will be within reach by 2008, it appears that there is overlap in how student numbers are calculated and in the provision of their medical education program.

Whilst students in these programs appreciate the teaching and learning opportunities they have with excellent teacher/student ratios and small group numbers, there are several issues that need to be considered including the role of the clinical school and whether there are more efficient ways to fund medical education in the NT.

### 3.1.4 Who coordinates and supervises student placements in the NT?

The NTCS Flinders and JCU student’s core curriculum hospital placements at RDH and ASH are coordinated and supervised by the NTCS. However, the Year 3 NTCS Flinders rural general practice placements are coordinated by the NTGPE.

The NTCS supervises approximately 50 students undertaking 200 short-term core curriculum hospital placements of 6 weeks in RDH and ASH as part of the Flinders’ Year 4 GEMP. However, NTGPE coordinates and supervises the general practice selectives for these same students.
NTRCS community-based placements in Alice Springs, Katherine and Nhulunbuy are coordinated and supervised by the NTRCS.

All RUSC, JFSS and other rural bonded placements in the NT – whether they are rural/remote general practice in Central Australia or the Top End, AMSs or regional hospitals – are coordinated by NTGPE and supervised at the local level. When conflict or other issues arise while students are on placement, the feeder university, NTGPE and the placement supervisor usually resolve them jointly – a complex process.

3.1.5 Strengths and Weaknesses of RUSC Placements

A survey was developed and sent out to the 14 feeder universities who send students to the NT for short term RUSC funded placements. The response rate was 78 per cent (n=11). Each university placements officer was asked about the types of placements, the aims of the placements and demographic data regarding their students. Refer to Appendix 2 for the survey. They were also asked to list the three best things that students reported about their placements in the NT. All respondents stated that the opportunity to experience Indigenous health and remote communities first hand was the major strength of the placement; with one stating that the NT placement was a ‘life changing experience’ for some students.

The NT placements are by far the best elective experience that our university offers domestically in medicine and it becomes more popular with our students each year (RUSC1).

We gain exposure to Indigenous Health in a genuine remote setting (CS1)

Sixty six percent (n=7) of respondents highlighted the importance of the variety of medicine in the NT.

The places are keenly sought by our students and we would like to see the number of placements increased to enable more students to participate in the program (RUSC5).

Make them regularly available with some predictability as they were in the past (RUSC2).

The most common complaints that feeder universities received from students about their placements were:

- Organisation issues – changes, late notice of placements
- Student safety
- Social isolation
- Lack of clinical supervisor at placement sites

36 per cent (n=4) of university placement coordinators indicated their concern about the newly imposed cost on accommodation for students and almost 50 per cent (n=5) indicated that they would like guaranteed places each year.
Clearly there is a significant and increasing demand for these short term RUSC placements, which will only increase in the coming years with the increase in overall medical student numbers. While there is some evidence that the longer term student placements achieve the best long term returns (27), these short term placement opportunities also provide students with a richness of experience and some do return and stay in the long term. This process therefore will require a coordinated and transparent process, which is much less resource intensive, to be sustainable in the long-term.

Table 3.2 A map of Medical Education providers in the NT.

<table>
<thead>
<tr>
<th>Medical Education Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program name</strong></td>
</tr>
<tr>
<td><strong>NTCS / Flinders University Medical Program</strong> (Graduate Entry Medical Program)</td>
</tr>
<tr>
<td>In the NT since 1997</td>
</tr>
<tr>
<td>Funding</td>
</tr>
<tr>
<td>NTDHCS - $1.595M p.a.</td>
</tr>
<tr>
<td>Flinders - $250K p.a.</td>
</tr>
<tr>
<td>JCU - $170K p.a.</td>
</tr>
<tr>
<td><strong>NTRCS / Flinders University Medical Program</strong></td>
</tr>
<tr>
<td>In the NT since 2006</td>
</tr>
<tr>
<td>One of the 4 RCS sites of Flinders GEMP</td>
</tr>
<tr>
<td>Funding - DoHA $1.4 mill p.a.</td>
</tr>
<tr>
<td><strong>NTCS / James Cook University Medical Program</strong> (Undergraduate Medical Program)</td>
</tr>
<tr>
<td>In the NT since 2005</td>
</tr>
<tr>
<td>a JCU teaching site - 1 in NT + 4 in Qld</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
### Table 3.2 continues

<table>
<thead>
<tr>
<th>Program name</th>
<th>Providers</th>
<th>Where/when training occurs</th>
<th>Numbers</th>
<th>Content &amp; length</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RUSC Medical Student Placements</strong></td>
<td>NTGPE coordinates, Supervisors are in the local setting</td>
<td>Rural &amp; remote general practice placements which aim to provide rural/remote experience and attract future workforce to rural and remote Australia</td>
<td>NTGPE place approx 170 students p.a. (includes NTCS GP placements &amp; JFSS) demand for places greater than supply</td>
<td></td>
</tr>
<tr>
<td>Australian National University - GEMP</td>
<td>clinical yrs</td>
<td>placements in:</td>
<td>18 p.a.</td>
<td>4-8 wk Selective/Elective</td>
</tr>
<tr>
<td>Flinders University - GEMP</td>
<td>Yr 4</td>
<td>• AMSs</td>
<td>approx 50 p.a.</td>
<td>6 wk rural selective</td>
</tr>
<tr>
<td>James Cook University</td>
<td>Yr 2</td>
<td>• GP Settings in the TE and CA</td>
<td>5 p.a.</td>
<td>4-8 wks</td>
</tr>
<tr>
<td>Monash University</td>
<td>clinical yrs</td>
<td>• regional hospitals</td>
<td>18 p.a.</td>
<td>4-8 wks Elective, Selective, 2-4 wks JFSS</td>
</tr>
<tr>
<td>Newcastle University - GEMP</td>
<td>Yr 3 &amp; Yr 5</td>
<td></td>
<td>10-12 p.a.</td>
<td>8 &amp; 4 wk Selective</td>
</tr>
<tr>
<td>University of Melbourne</td>
<td></td>
<td></td>
<td>variable</td>
<td>2-4 wk Elective &amp; JFSS</td>
</tr>
<tr>
<td>University of NSW</td>
<td>all years</td>
<td></td>
<td>5 p.a.</td>
<td>2-4 JFSS, 4-8wks Elective</td>
</tr>
<tr>
<td>University of Qld - UGMP</td>
<td>Yr 3</td>
<td></td>
<td>10-15 p.a.</td>
<td>4-8wks Rural medicine</td>
</tr>
<tr>
<td>University of Sydney - UGMP</td>
<td>clinical yrs</td>
<td></td>
<td>31 p.a.</td>
<td>2-4 wks Selectives/Electives</td>
</tr>
<tr>
<td>University of Tasmania - UGMP</td>
<td>clinical yrs</td>
<td></td>
<td>5 p.a.</td>
<td>2-4 wks Selective</td>
</tr>
<tr>
<td><strong>John Flynn Scholars JFSS</strong></td>
<td>ACRM - National Manager, sub contract NTGPE to manage placements</td>
<td>The setting must be the same rural or remote community</td>
<td>national max is 600 scholars total of 61 JFSS students in the NT</td>
<td>2 wks/pa for 4 yrs consecutively – usually commencing in Yr 1 of course aims to introduce student to rural / remote practice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• AMSs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• supervised general practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• other primary care setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medical Rural Bonded Scholarships</strong></td>
<td>NTGPE</td>
<td>Placement settings similar to JFSS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>any Medical School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>International Medical Schools</strong></td>
<td>NTGPE</td>
<td></td>
<td>approx 2 pa</td>
<td>Electives</td>
</tr>
<tr>
<td><strong>Charles Darwin University</strong></td>
<td>Cross cultural</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate School of Health Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Centre for Remote Health</strong></td>
<td>Flinders and CDU</td>
<td>Alice Springs and community placements</td>
<td>CRH provides programs for health professionals including: Master of Remote Health Practice and Master of Remote Health Management</td>
<td></td>
</tr>
</tbody>
</table>
3.2 Prevocational training

Prevocational doctors are those junior doctors, interns or Resident Medical Officers (RMO)s in their post graduate year (PGY) 1-2. In the NT this may also include those up to PGY 5 and beyond, who continue working in the hospital sector and have not as yet commenced training in a vocational training program. It was this prevocational sector where the greatest gaps were identified in this review process.

**Figure 3.2 – Pre-vocational Training**

### 3.2.1 PGY1 – Intern Positions

PGY 1 doctors are those in their first postgraduate year who are provisionally registered. In the NT, PGY 1 positions are only available at RDH and ASH as accredited teaching hospitals. At the time of the review ASH was accredited for 8 Intern positions and RDH was provisionally accredited until November 2007 for 16 Intern positions, all positions were filled at the time of the review. The positions are open to Flinders and JCU NTCS medical graduates, and then graduates from other Australian medical schools, then international medical graduates.

Intern training is for 12 months and is considered a supervised apprenticeship where graduates rotate though 4 terms, of which medicine and surgery are compulsory. Satisfactory completion of this year is required for full registration of all medical graduates. The intern year is an
important year in a graduate’s career pathway and the training they undertake early in their postgraduate years can influence their career choices.

Intern training is usually coordinated by a postgraduate medical education council, or similar, in each state of Australia, in conjunction with clinical training staff and the training program of each department the intern rotates through. Supervision and assessment is usually undertaken by SMOs in consultation with the Registrars.

No Post Graduate Medical Council (PGMC), has existed in the NT for almost two years. This has clearly impacted negatively on prevocational training in the NT. There has been no NT input into the development of the national Junior Doctor Curriculum Framework, which from July 2007 has become the mandated foundation for intern training, and prevocational training is reportedly poorly coordinated across the two teaching hospitals.

*The hospital does not know what the curriculum (for junior doctors) is, so it is very hard to have any sort of assessment process...With the new (curriculum) requirements PGY 1’s will have similar sorts of processes like MiniCEX’s it could almost be a common pathway whether you’re an Intern or an IMG undergoing that year of supervised training (R 4).*

Limited medical education staff are devoted to intern training as their focus appears to be on workforce issues, no evident evaluation has been undertaken and the focus appears to be driven by what occurred in the previous year’s program; and in one hospital it is determined by which external group will provide lunch for training sessions. However within the individual departments at RDH and ASH some good examples of intern training were reported with dedicated, protected teaching time, clinical teaching staff and well coordinated department programs identified.

### 3.2.1.1 Accreditation of intern training

Serious concerns were raised throughout this review about the accreditation of intern training at RDH. Without accreditation of intern training the time they undertake cannot be counted as training time for entry into specialist training programs, so it is a significant issue for both the intern and the RDH in being able to attract interns. Both RDH and ASH were accredited in 2006, RDH was provisionally accredited in October for a one year period and ASH in December for a three year period. In the absence of a NT Post Graduate Medical Council (PGMC), the accreditation was conducted under the auspices of the NT Registration Board. An assessor from the NSW equivalent postgraduate organisation, the Institute of Medical Education Council (IMEC), performed the assessment based on their standards and aided by local assessors.
In November 2006 they provided ‘provisional’ accreditation of the RDH for one year, that is, for the intern year 2007, based on 25 recommendations that they were required implement before full accreditation would be given. These recommendations were prioritised by the NT Registration Board into 3 priority areas. Ten recommendations were required to have been met in 3 months, 14 in 6 months and one in 12 months (28). The 25 recommendations included all aspects of junior doctor training from orientation, the needs of IMGs, a process for skills verification, supervision and teaching arrangements, evaluation of training, train the trainer, JMO representation, and the adequacy of administrative and other support arrangements (28). In particular the recommendations referred to the need to appoint a DCT as a matter of urgency. A PGY4 registrar was temporarily appointed to this position for six months in mid September 2007, after the consultation process of this review was completed.

### 3.2.2 PGY-2 and Subsequent Years

At RDH there are currently 60 PGY 2-5 RMOs and at ASH there are 20. These prevocational doctors rotate through a variety of terms usually of 3-6 months. From PGY4 onwards, some doctors undertake terms at the three regional hospitals. Beyond PGY2, doctors may participate unregistered (supernumerary) in vocational training programs at the hospitals and take on a Career Medical Officer pathway. Terms in some departments such as Emergency Medicine and Anaesthetics are highly sought after by prevocational doctors as they have reportedly excellent teaching reputations and may form part of vocational training, whilst others can be difficult to fill.

*I am going away (to another state) to do some proper training as there is no structured training here (RDH), its not coordinated, we get bullied into doing terms we don’t want to do (R98)*.

*They are blackmailing us into being relievers, or give us crap jobs, in order to finally get the terms we want (R40).*

Workforce planning, recruitment and retention in this sector was identified as a major challenge to both teaching hospitals and it appears it is being done with limited long term success due to a lack of structured programs and workforce planning.

*We need people in recruitment to be passionate about working in the NT, managers need to be properly trained to recruit (and retain) doctors in the NT, not having the attitude that you (junior doctors) owe us and actually scaring you off (CS1).*

*There is no effective supervision of prevocational...no planned PGY 1-2 streams... we should set up streams and proper rotations...by PGY 4 they should be ready for a registrar position (R16).*
Many of the PGY 2-5 and in some cases through to PGY 10 positions are undertaken by IMGs. What was very clear in this review was the reason IMGs come to Australia is not just for work, but also for training. What is currently offered are poorly structured pathways and barriers for IMGs to enter training into a career pathway.

Excerpt of case study with IMG:

*I wanted to do my post-graduate training elsewhere. I went to the UK and did my grad then started my first jobs there. You may be aware there were many changes happening in the UK, and when it came time I decided that I should leave the UK because it wasn’t looking good in the long term, in terms of my training.*

So you intend staying here?

*I haven’t yet decided on that. It depends on what kind of training posts I get in the future. For me, the most important thing is that I do my post-graduate training via a college. I will stay long enough to do that if I get an opportunity…. I’m not very sure of the whole process, I think I just need to start to apply for training posts for next year, because this job is for 1 year.*

Yet this view is in contrast to those who administer these programs.

*IMGs are here to fill a gap. A lot of them are wanting well beyond that…It is not a nurturing environment. Nothing in the hospital is dedicated to IMGs…they don’t want them in the private hospital, it is too risky (R55).*

**Rural Generalist Training and Career Pathways + Supervision**

This review process identified two specific opportunities for the NT to explore further in developing a dedicated rural generalist career training pathway for career medical officers and IMGs. A model exists in Queensland, which was developed by Queensland Health and ACRRM, for a generalist training career pathway for hospital doctors known as the The Rural Generalist Pathways project. It aims to provide a defined training and career pathway from day one of internship for doctors wishing to specialise as Rural Generalists. The Rural Generalist Prevocational Training framework commenced in 2007. This framework encompasses the clinical and educational experiences necessary for ensuring safe clinical practice in rural areas from postgraduate year 3 (PGY3). It also aims to support existing doctors in the role of Rural Generalist, from the junior doctor level up to and including those at a senior level.

*Most OTDs have good procedural skills…they don’t want to go down a specialty path. But the way the system is currently they can’t progress (R57).*

The second model is one of supervision for IMGs – *OTD supervisor support module*. ACRRM have developed this new module that will provide supervisors with the specific teaching and supervision skills required for IMG supervision. The course features online training resources
and communication mechanisms (email and discussion boards for supervisors) accessible via both ACRRM’s Rural & Remote Medical Education Online (RRMEO) platform and the federal government’s DoctorConnect website, plus options for face-to-face workshops which can be delivered regionally. This will be available from December 2007. Both of these models are worthy of further investigation as the NT context is similar.

_We get some brilliant people from overseas...if we can only harness some of this...we need to look at opportunities to delve into this (R6)._ 

**Prevocational General Practice Placement Program (PGPPP)**

The PGPPP is funded by the Australian Government and coordinated in the NT by NTGPE. It is designed for hospital based junior doctors PGY1–3 to provide them with the opportunity to gain exposure to general practice, primary health care and rural generalist specialised skills around the Northern Territory. The aim is to encourage them to choose general practice or rural medical practice as a vocational training pathway.

Doctors receive three days orientation before their placement, which is 13 weeks in an ACRRM or RACGP accredited general practice or Aboriginal Medical Service. The training posts operate as any other rotation with junior doctors coming from feeder hospitals in the NT, as well as Adelaide, Melbourne and Cairns. A total of 24 x 3 month places are offered each year, usually 6 doctors each rotation. While the placements are an average of 3 months duration, in some remote locations this can be up to 26 weeks. In the NT it appears that the program is meeting with success, as the NTGPE reported 85 per cent of these junior doctors were choosing to join the Australian General Practice Training program.
### Table 3.3 A map of Prevocational Training providers in the NT.

<table>
<thead>
<tr>
<th>Program Name &amp; Type</th>
<th>Provider + Partners</th>
<th>Where - Accreditation</th>
<th>Content &amp; Length</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PGY1 - Intern Program</strong></td>
<td>NTDHCS</td>
<td>RDH</td>
<td>1 yr Rotate through 4 x 3 month basic terms of Medicine &amp; Surgery then choice of: EM, O&amp;G, Psychiatry, Orthopaedics</td>
<td>16 intern positions</td>
</tr>
<tr>
<td>Foundation for vocational training in GP or hospital specialty. It is a supervised apprenticeship and a requirement for full registration of all medical graduates.</td>
<td>Previously the PGMC coordinated training with DCTs and individual departments at RDH &amp; ASH</td>
<td>ASH accredited for Intern Training until end of 2009</td>
<td>Basic terms of Medicine &amp; Surgery then choice remaining 2</td>
<td>8 intern positions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PGY2 and subsequent years: RMOs</strong></td>
<td>NT DHCS</td>
<td>RDH or ASH</td>
<td>Rotate through terms usually of 3-6 months in:</td>
<td>total at RDH is up to 60</td>
</tr>
<tr>
<td>Can be up to PGY10</td>
<td>Plus the specific college, when the doctor is in specialty training program</td>
<td>With some terms at the regional hospitals – Katherine, Nhulunbuy or Tennant Creek</td>
<td>Anaesthetics, Emergency Medicine, Intensive Care, Obstetrics &amp; Gynaecology, Paediatrics, Physician, Psychiatry, Medicine, Surgery</td>
<td>total at ASH is up to 29</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Many are IMGs After PGY2 many positions are considered supernumerary if not in training program</td>
</tr>
<tr>
<td><strong>PGPPP for PGY2-3</strong></td>
<td>NTGPE coordinates program and partners with:</td>
<td>Placements in remote communities RRMA 4-7</td>
<td>3 days orientation then 13 wk rotation in Central Australia, Top End or Urban</td>
<td>24 places per year usually 6 per rotation</td>
</tr>
<tr>
<td>Clinical rotation that provides remote experience in primary health care</td>
<td>• ACRRM • RDA • RACGP • Aust Govt • Communities</td>
<td>All clinics and practices are accredited through the regional training provider NTGPE for ACRRM and RACGP</td>
<td>Junior Doctors come from feeder hospitals: NT Hospitals, Adelaide Hospitals, Melb Hospitals, Cairns Base Hospital</td>
<td></td>
</tr>
</tbody>
</table>
3.3 Vocational education and training

Vocational trainees are those who are undertaking specialty college training, including general practice and rural medical practice. Numerous specialist colleges who set the training standards, offer these programs and trainees are selected on a competitive basis. Each college accredits its own training posts in hospitals and the community, to ensure that the post can meet their training standards. In the NT hospital specialist training posts only exist in RDH and ASH with some outreach posts at Gove District Hospital and Katherine Hospital.

3.3.1 General Practice / Rural Medical Practice

General practice and rural medical practice training is funded by General Practice Education and Training (GPET). The standards are set, and the posts accredited for training, by the Australian College of Rural and Remote Medicine (ACRRM) and/or the Royal Australian College of General Practitioners (RACGP). The training is coordinated by the NTGPE (the accredited Regional Training Provider in the NT). At the time of this review there were 47 GP Registrars in the NT – 27 in Darwin, 9 in Alice Springs, 7 in Katherine, 3 in Nhulunbuy and 1 in Laynhapuy.

The first year of general practice training (by the RACGP), or rural medical practice training (by the ACRRM) is undertaken in the hospital sector. In the NT, RDH and ASH are accredited to provide 12 months hospital training (subsequent to the intern year) where GP Registrars undertake mandatory rotations in general medicine, general surgery, paediatrics and emergency medicine. Following this, registrars undertake 2-4 years in a variety of posts including: the community, general practice, advanced rural skills or advanced specialised training posts, Aboriginal Medical Services, or in general procedural terms. These may include hospital terms at a combination of RDH, ASH, Gove District Hospital, and Katherine Hospital. All components of general practice training can be undertaken within the NT. Excellent feedback was received during this review about the NTGPE program in the NT.

NTGPE have looked at combining with Kintore clinic and hospital...every Wednesday we have in house training with Aboriginal health workers, nurses...if there is a visiting specialist program they will ring the registrars...they also join in with divisional staff (R61).

In 2007 the AMC accredited the Australian College of Rural and Remote Medicine (ACRRM) as a standards and training provider. As a consequence, the Australian Government provided rural and remote medicine with formal recognition under Medicare as a generalist discipline, for the first time in the world (30). ACRRM is currently working through a process to accredit NTGPE as a provider of its training. Once this is achieved it is expected that there will be considerable increase in the number of registrars applying to undertake this rural training pathway.
The Remote Vocational Training Scheme Ltd (RVTS) is funded directly by DoHA. It provides vocational training towards Fellowship of the RACGP and/or Fellowship of the ACRRM for medical practitioners working in remote and isolated communities throughout rural and remote Australia \(^{(31)}\). The RVTS is a three or four year full-time (or part-time equivalent) program designed to deliver structured distance education and supervision to doctors while they continue to provide general medical services to a remote and/or isolated community. The training includes weekly tele-tutorials, twice yearly education workshops, remote supervision and individualised training advice \(^{(31)}\). The model of remote supervision is an innovative feature of this training program and provides a model for other colleges to examine for those undertaking training in the NT.

*The RVTS is very good...it places importance on procedural skills plus GP skills and the welfare of the doctor and their family so that they are able to practice* \((R57)\).

### 3.3.2 Specialist vocational training

A number of specialist colleges also set the training standards and accredit hospital and community posts for specialist training. These posts vary in duration from 3-6 years depending on the discipline and each has different training requirements and terms, some of which cannot be undertaken in the NT.

The Colleges include the following:

1. The Royal Australian and New Zealand College of Anaesthetists (RANZCA)
2. The Australasian College for Emergency Medicine (ACEM)
3. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)
4. The Royal College of Pathologists of Australasia (RCPA)
5. The Australasian College of Physicians (RACP)
6. The Royal Australasian College of Surgeons (RACS)
7. The Royal Australian and New Zealand College of Psychiatrists (RANZCP).

Table 3.3.1 summarises the accredited specialty training posts available in NT DHCS hospitals, the number and type of posts available at each location and a 2007 snapshot of the current number of trainees in these positions in the NT.
### Table 3.3.1  **Snapshot of Vocational Training Posts in the NT**

<table>
<thead>
<tr>
<th>Specialty Colleges</th>
<th>Training in the NT</th>
<th>No. of accredited training posts</th>
<th>Current trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anaesthetics</strong></td>
<td>No basic training</td>
<td>RDH – 8 (includes advanced GP &amp; ICU)</td>
<td>RDH – 8</td>
</tr>
<tr>
<td>RANZCA training requirements</td>
<td>Accredited for 24 months of advanced</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 yrs Basic</td>
<td></td>
<td>ASH – accredited for diploma, and due for full accreditation in 2008</td>
<td>ASH – 1*</td>
</tr>
<tr>
<td>• 3 yrs Advanced</td>
<td>1 yr + 1 yr RDH + GH/KH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Rural Skills Anaesthetics: GP</td>
<td>6 months RDH/ASH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICU: joint RACP &amp; RANZCA – 6 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Emergency Medicine</strong></td>
<td>All training 6 yrs–</td>
<td>RDH – 12</td>
<td>RDH – 12</td>
</tr>
<tr>
<td>ACEM training requirements</td>
<td>Basic, Provisional &amp; Advanced can be done in NT at RDH and ASH (most Registrars do 2-3 yrs in NT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 yrs Basic (may include PGY1&amp;2)</td>
<td></td>
<td>2007 RDH received continued accreditation as tertiary referral ED by ACEM</td>
<td></td>
</tr>
<tr>
<td>• 1 yr Provisional</td>
<td></td>
<td>ASH – 8*</td>
<td>ASH– 8*</td>
</tr>
<tr>
<td>• 3 yrs Advanced (includes 18 months in another discipline)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Practice</strong></td>
<td>All Training 3 yrs + option for advanced rural skills year</td>
<td>? number of accredited posts – TBA</td>
<td>47 across NT</td>
</tr>
<tr>
<td>RACGP training requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1 yr hospital (may include PGY2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1 yr basic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1 yr advanced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• optional 1 extra year advanced rural skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Obstetrics &amp; Gynaecology</strong></td>
<td>No Yr 1+2 in the NT</td>
<td>RDH – 6 (includes 2 Diploma)</td>
<td>RDH – 6</td>
</tr>
<tr>
<td>RANZCOG training requirements</td>
<td>Basic Years 3+ 4 and Advanced can be done in NT – – TBA Part of SA &amp; NSW programs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 4 yrs Basic</td>
<td></td>
<td>ASH – 5*</td>
<td>ASH – 5*</td>
</tr>
<tr>
<td>• 2 yrs Advanced (in area of interest or sub specialty)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma of RANZCOG = 6 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pathology</strong></td>
<td>All training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RPCA training requirements</td>
<td></td>
<td>RDH – 3</td>
<td></td>
</tr>
<tr>
<td>• 5 yrs not structured as basic &amp; advanced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physician</strong></td>
<td>5 yrs - at least 1 yr must be done outside NT</td>
<td>RACP does not put a cap on number of training posts – it varies according to capacity to train</td>
<td>RDH 12- AIM/ICU 7 - Paeds 12 – Public Health</td>
</tr>
<tr>
<td>• Adult Internal Medicine (AIM)</td>
<td>Trainees can be part of SA &amp; NSW Network Programs</td>
<td>ASH – accredited for 1 year of advanced training and 6 months of ICU.</td>
<td></td>
</tr>
<tr>
<td>• ICU</td>
<td>Hospital &amp; community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Paediatrics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Public Health – includes Aero-med</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RACP training requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 3 yrs Basic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 3 yrs Advanced</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Vocational Training Providers cont.

<table>
<thead>
<tr>
<th>Specialty Colleges</th>
<th>Training in the NT</th>
<th>No. of accredited training posts</th>
<th>Current trainees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psychiatry</strong></td>
<td>All training 5 yrs</td>
<td>RDH (base of Top End Mental Health Service) (TBA trainees) Accreditation at Alice Springs not based at ASH</td>
<td></td>
</tr>
<tr>
<td>RANZCP training requirements</td>
<td>Basic &amp; Advanced</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 3 yrs Basic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 yrs Advanced</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Remote Vocational Training Scheme</strong></td>
<td>All Training 3–4 years</td>
<td>TBA</td>
<td>3</td>
</tr>
<tr>
<td>A separate pathway for remotely located doctors to undertake training with remote supervision. They meet the standards and undertake the assessment requirements of either the RACGP or ACRRM.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rural Medical Practice</strong></td>
<td>All training – 4 yrs</td>
<td>8 current. This is a newly AMC accredited training pathway in 2007 where rural and remote medical practitioners can achieve vocational recognition in Australia. It is currently working with NTGPE to become an accredited provider.</td>
<td>8 independent pathway 1 AGPT 3 RVTS</td>
</tr>
<tr>
<td>ACRRM training requirements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1 yr Hospital (can be PGY2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 2 yrs core clinical training in RRMA 4–7 areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• 1 year rural specialised training. ACRRM also provides an independent pathway and facilitates the RVTS program.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Surgery</strong></td>
<td>TBC</td>
<td>RDH – 4 for Basic</td>
<td>TBC</td>
</tr>
<tr>
<td>RACS training requirements</td>
<td>Advanced rotations from Sydney/Adelaide programs (rural surgery)</td>
<td>3 for Advanced</td>
<td></td>
</tr>
<tr>
<td>• 3 yrs Basic</td>
<td></td>
<td>ASH – 1 Advanced, 1 Basic</td>
<td></td>
</tr>
<tr>
<td>• 3 yrs Advanced</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: There was difficulty in obtaining verification of these numbers due to staff changes.*

Some high quality vocational training programs were evident within individual departments of the RDH and ASH. For example: the RDH Emergency Department has a Director of Training who coordinates the vocational program for Registrars, which typically consists of:

- weekly training sessions with dedicated, protected training time,
- audit / research time for specific projects and research component of FACEM,
- weekly formal FACEM Part 1 exam teaching time,
- individually tailored FACEM Part 2 exam teaching time,
- opportunities to instruct on in-house courses,
- mentoring program and
- participation in additional programs conducted by the department - such as the Trauma Simulation Centre, Rural Trauma Education, Wilderness Medicine courses, EMST and APLS courses.

The College of Surgeons provides a problem based two-hour videoconference every fortnight, which links with consultants and registrars in surgical training in four centres in North Queensland. The recent development of the *Acute Trauma Centre* at the RDH, based on the
Singapore model and largely the result of the Bali Bombings, has added considerable infrastructure for increasing education and training opportunities for all staff at RDH and beyond. This has seen an initiative whereby all doctors at the RDH are trained as trauma response doctors irrelevant of their discipline. It also reminds us of the close links and potential untapped education and training opportunities that the NT has with South East Asia.

Terms in some departments such as intensive care posts are highly sought rotations as they provide accredited posts with excellent training opportunities. Several programs are based in SA or NSW with trainees undertaking compulsory terms in the NT. There are reportedly mixed receptions to the terms in the NT, usually dependent on individual trainees and the perceived quality of the teaching posts.

Emergency Medicine, Pathology, Psychiatry and General Practice and Rural Medical Practice can all be completed within the NT. Given the length of vocational training and the flexibility of posts from the various colleges, many trainees reportedly choose not to spend their entire training program within the NT, even if it is possible. Those specialty training programs that require trainees to undertake terms outside of the NT also have difficulty in retaining these specialists once they leave to complete this component of their training time. Many trainees are required to complete a final term in a metropolitan hospital

...they go away to complete their Fellowship and they don’t come back (R18).

Clearly a strong culture of ‘education’ exists and this is not an isolated case with many clinicians devoting considerable time to education and training. However every layer of hierarchy is teaching every layer, which creates duplication with limited resources and is not sustainable in the long-term and a different sort of system that coordinates and breaks down the existing silos is required.

A lot of teaching is done to too few people…its run like glorified private hospital (R13).

3.4 Continuing Professional Development (CPD)

Once training has been completed all specialties require their Fellows to undertake CPD in order to maintain their vocational registration. Well coordinated programs with locum support and incentives to enable rural and remote practitioners access to CDP – whether it be individual sessions, conferences or longer courses – are viewed by the profession as vital to the retention of a well informed, up-to-date and safe medical workforce.
3.4.1 CPD for General and Rural Medical Practice

In the NT, there is an active and well coordinated CPD program for General Practitioner and Rural Medical Practitioners. The major providers are the two Divisions of General Practice (Top End Division and Central Australia Division) along with NTGPE and General Practice and Primary Health Care NT (GPPHCNT), which is the merger of the NT Remote Health Workforce Agency and GP Divisions NT. Both Colleges, the RACGP and the ACRRM, have extensive CPD programs, which are accessible electronically via the web. Some of the strengths of these CPD programs include:

- a calendar of events
- a program that is organised around GP needs
- a wealth of varied clinical material
- access to clinical expertise
- most sessions are accredited for CPD points for both colleges – the RACGP and the ACRRM
- some of the CPD sessions are interdisciplinary and are also open to nurses, physiotherapists, pharmacists and other allied health professions and are also endorsed for their professional development requirements.

ACRRM’s Rural and Remote Medical Education Online program (RRMEO) was identified by several doctors and trainees interviewed as being an excellent educational tool that was easily accessed and relevant.

Some CPD training gaps were identified by those providing the GP programs. They included: chronic disease training and procedural clinical skills for doctors working with Indigenous people in remote areas: for example – audiology.

3.4.2 CPD for specialists

Hospital specialists stressed the importance of CPD in retaining their consultant and senior registrar workforce.

Most CPD at the senior level occurs outside of the NT. For this sector of the profession access to current CPD is very much a factor of locum availability / cover, time, distance and cost. Providing access to conferences and courses is vital and this means staffing needs to be sufficient to allow attendance. Several respondents in more remote areas reported that even when courses and training were organised on site, they had difficulty attending because of workforce shortage and the lack of available staff to cover for non-clinical time.

*I am unable to maintain my skills out here, that’s why I am leaving. There is just not enough workforce (R61).*
Education opportunities exist, particularly in the more remote areas, to make use of opportunistic teaching through the medical specialist outreach programs.

Ideally the visiting specialists coming to work out here could provide some education like "teaching on the run" (R63)

Greater sharing of CPD across the medical, the specialty and the broader health professions is an opportunity missed, due to lack of a coordinating arm to do so.

In smaller regional hospitals it either has to be in house stuff by ourselves or visiting people coming down. We also have the College of Surgeons run a prospect program that they funded...they send 3 –6 semi retired people who are still interested for 1-2 week for teaching didactic or procedural stuff as well ...its been running for 4 years or so...its probably about the most organised of the lot ... but it takes an enormous amount of my time organising that and it is not the best use of my time... it is just a waste of good clinical skills time (R3+4).

Models to learn from

There are several models that have proven to increase retention in other health professions that could provide some options for improvement in the NT. The North West Queensland Primary Health Care model (NWQPHC) model (32, 33) provides an employment package for remote allied health professionals that includes: dedicated study leave, a strong professional development program with dedicated relief, options and links to accredited education programs that can be delivered in a progressive modular format over a minimum of a one year period, professional support components that enable clinicians to undertake the program as part of their normal employment contract, supported by locum relief, with a structured rostering system for clinical work and a salary package that rewards practitioners for the contribution they make and recognises the complexity of service delivery, travel and personal isolation issues in rural and remote life. Those issues addressed in the NWQPHC should offer some ideas. The NWQAHS model was successful in retaining allied health staff with a turnover rate of only 20 per cent in a 20-month period (33), compared with the national average of 42 per cent (34).

Several respondents highlighted the Central Australian Pathways to Professional Practice Program for remote area nurses as a good NT model for attracting, stabilising and skilling a remote workforce. These programs included a strong professional development program and a focus on career development as an integral part of their employment packages. CPD that incorporates incentives such as programs tailored to individual learning goals, programs that lead to formalised qualifications, choices within the program, conference access as a given, a
strong orientation program and workplace induction have been found to increase retention as they place value upon the workforce.
<table>
<thead>
<tr>
<th>Provider</th>
<th>Who is it for</th>
<th>Accreditation</th>
<th>Content</th>
<th>Where &amp; Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Practice and Primary Health Care NT (GPPHCNT) (A merger of the NT Remote Health Workforce Agency &amp; GP Divisions NT)</td>
<td>General Practitioners, GP Registrars In regional and remote areas, some sessions are open to DMOs, PG doctors in hospitals, medical students nurses and allied health professionals.</td>
<td>Most sessions are accredited for CPD points (which are required to maintain vocational registration) with RACGP and ACRRM. Providers can apply to have training they have developed or conferences accredited for CPD.</td>
<td>Varied program ranging from individual sessions, conferences, short courses, including chronic disease management, immunisation, mental health, nursing in general practice, aged care panels</td>
<td>Varied locations Mostly Alice Springs &amp; Darwin Presented by staff from NTGPE, RDH, ASH, GPs, public health physicians and other ‘experts’.</td>
</tr>
<tr>
<td>Top End Division of General Practice (TEDGP)</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>Central Australia Division of General Practice (CADGP)</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
<td>As above</td>
</tr>
<tr>
<td>NTGPE</td>
<td>General Practitioners, GP Registrars Rural Medical Practitioners Remote Vocational Trainees</td>
<td>As above</td>
<td>As above. Facilitates external providers sessions - EMST courses and cross cultural education programs and those particularly for IMGs.</td>
<td>As above</td>
</tr>
<tr>
<td>RACGP</td>
<td>General Practitioners GP Registrars Rural GPs Fellows and members Remote Vocational Trainees</td>
<td>All sessions are accredited for RACGP QA and CPD points. Providers can apply to have training they have developed, or conferences, accredited for CPD.</td>
<td>Varied program conferences, courses, workshops. Excellent online program gplearning for all members, fellows and registrars.</td>
<td>On-line program e.g. Women's health, surgery, anaesthesiology, radiology, acupuncture, clinical audit activities. Variety of venues NT &amp; interstate</td>
</tr>
<tr>
<td>ACCRM</td>
<td>Rural Medical Practitioners General Practitioners Rural Registrars RVTS registrars All members and RTPs</td>
<td>All sessions are accredited for ACRRM CPD points. Providers can apply to have training they have developed, or conferences, accredited for CPD.</td>
<td>Varied programs + on line modules in Aboriginal health, mental health, ultrasound, procedural skills etc conferences, workshops Maintenance of rural procedural skills</td>
<td>RRMEO (excellent on-line programs - wide variety) Variety of venues NT &amp; interstate</td>
</tr>
<tr>
<td>Hospital Specialist College Programs</td>
<td>Specialists Fellows of Colleges Registrars in vocational specialty training Other Specialist Programs and their Registrars</td>
<td>Sessions need to be accredited with the respective colleges for CPD, and accreditation can be applied for particular workshops or conferences.</td>
<td>Varied program Conferences, workshops, short courses, individual sessions Procedural skills – EMST, ASL courses Provision of courses for other specialty areas e.g. EM running Rural Trauma Education, APLS courses for other medical practitioners</td>
<td>Hospital and a variety of other settings, many of which are interstate and overseas</td>
</tr>
<tr>
<td>Pharmaceutical Companies</td>
<td>All medical practitioners – hospital, general practice, specialists Work in with Colleges and Divisions to gain accreditation for programs provided</td>
<td>Varied but most sessions relate to company programs</td>
<td>Hospitals and community sector</td>
<td></td>
</tr>
<tr>
<td>Other Providers</td>
<td>As above</td>
<td>Many are not accredited sessions</td>
<td>Variety</td>
<td>Hospitals, health departments, universities, AMSs, and other community</td>
</tr>
</tbody>
</table>
CHAPTER 4. RESULTS

Chapter 4 reports on the collated and analysed results of the semi-structured stakeholder interviews, the focus groups, case studies and the survey of medical student providers. It identifies the strengths of the current system, the barriers, the gaps, the areas of duplication and the priorities for change.

4.1 What are the strengths of the current system?

To enable the review team to establish what was working well respondents were asked what they saw as the 3 greatest strengths of the current medical education and training process across the NT. Not all stakeholders were asked this question and some could only provide one or two strengths.

Clearly the main reason medical students and medical practitioners are attracted to the NT is the fascinating medicine and the opportunities that the NT offers in remote and Indigenous health, public health and exposure to pathology that is usually only seen in third world countries. This type of medicine enables them to have great educational experiences. Practitioners stated:

- From a public health perspective it is the type of experience you get up here... it is meaty public health work... the clinical pathology, the Indigenous aspect and the Department’s attitude in their acceptance for public health doctors... their recognition of the value of public health work (R53).
- NT is an interesting, exotic place to work... a huge variety and breadth of cases that are often only seen in third world countries (R21)
- You get exposure to stuff you normally only see in textbooks (R60)
- The place and the population attract people (doctors) here (R27)
- It offers something unique, clinically and culturally (R3).

The second highest strength identified was the smallness in numbers in the NT, which enables a lack of hierarchy between students, junior doctors and consultants who work in a very hands on way, on an often one to one ratio. Respondents reported good personal relationships where most people know everyone.

- There is an astonishing lack of hierarchy close to junior doctors and you get a different quality of education... there is no distance between specialists and trainees, you get really good supervision (R16).
The ability for promotion and to move more quickly through the medical hierarchical system, complemented by great training opportunities for students where placements are included in the curriculum and support infrastructure such as new accommodation in remote communities.

*We are able to fast track our experience ... we can become more senior, quicker (R28)*

*Excellent student support... before they go and while they are there... Placement is part of the curriculum... a selective rather than an elective, electives = club med (R26).*

**Figure 4.1 The top five strengths of the current medical education and training.**

Many also commented on the quality of the teachers, academics and clinicians in the NT

*...there are some fantastic educators and clinicians out there (R22)*

*... the teachers are exceptional... there are some very good consultants - they inspire young doctors (R23).*

Five respondents singled out NTGPE as one of the strengths of medical education and training in the NT, stating that the coordination occurs in one place and it is clear what they do. Other strengths noted included – the calibre of nurses who have gone through the Master of Remote Health Practice program, Medicare incentives, the support from their professional organisation and the ability to be generalist specialists.

*(NTGPE) ... know the Territory... know health (R26)*
4.2 What are the barriers?

Respondents were asked what they saw as the 3 greatest barriers to achieving cohesive, efficient and well-coordinated medical education and training across the NT. Not all stakeholders were asked this question and some only provided one or two barriers, a total of 102 responses were received.

The two top barriers identified were the lack of workforce numbers, support and resources for training, followed equally by a lack of coordination of the current training with too many organisations involved. Many cited the duplication of undergraduate placement coordination as a major barrier.

...not enough workers for the sickest population in the country (R65).

Everyone builds their little empires... you know the Indigenous mob think they look after Indigenous health... the hospitals think they are centres of excellence and everyone in the community has no idea... then the community thinks everyone in the hospital doesn’t have a clue... it becomes really evident if a team doesn’t function well as a team, as they are so small... there are too many levels of bureaucracy (R57).

There are too many organisations who all want to push their own barrow – self-interest...We need formal links between organisations and clinical co-locating (of placements) (R23).

![The 7 greatest barriers to cohesive training](image)

**Figure 4.2 – The greatest barriers identified to achieving a cohesive, efficient and well-coordinated medical education and training across the NT.**

There was a clear view that there was low priority placed on education and training, especially so in the pre-vocational sector.
There is a lack of appreciation of the importance of education and what is gained from education... the quality of training is excellent, the quantity is hard (R27)

Acute care management takes precedence over education...there is not a big enough workforce and the clinical workload too high, which leads to less time for training (R31)

Lots of players for such a small place ... there are only 400 doctors in the NT!...and there are lots of politics (R23).

These factors were all compounded by distance, funding and the strong silo mentality that exists, which is further fragmented by the necessary specialist college accreditation requirements.

Other comments (n=6) included: the lack of will of the department (NTDHCS), the Berrimah Line – Top End vs. CA; College requirements; cultural and language issues when working cross culturally which were described as

... a source of fascination and also a source of leaving (R29).

4.3 Areas of Duplication

Respondents were asked to identify any specific areas of duplication that they had observed. Not all respondents were asked this question and many could not identify any areas of duplication, these were not included in the respondent rate.

4.3.1 Medical student placements

Of those who could respond (n=43), the most significant area of duplication identified was overwhelmingly in the medical education sector. Almost half of respondents identified student placements as being the greatest area of duplication. Three different groups are coordinating student’s placements – NTGPE, NTCS and NTRCS, and it was evident that some competition and tension exists between two of the groups.

The regional committee to coordinate and support placements hasn’t worked... there are over 25 groups involved in student placements...Placements should work from the ground up (R22)

There’s competition and duplication about student placements (R26).

NTGPE operates under a model of vertical integration and places a large number of students on short-term placements in general practice settings. This overlaps with the NTRCS who are also seeking to place a small number of students in a variety of community-based settings, many of which are general practice.
Student placement and support is core business for the Rural Clinical School...why are student placements managed by NTGPE...It’s a shemozzle (R20)

Demand for these NT places outweighs supply. Already there is competition for placements.

The NT is the dumping ground for other universities to get students remote Aboriginal experience (R32).

We need a coordinated database of community-based medical education placements...With the increase in medical student numbers the ‘tsunami’ will be hard to accommodate (R32).

The shorter-term RUSC placements are generally considered valuable as one coordinator from an interstate medical school indicated.

The NT placements are by far the best elective experience that our university offers domestically in medicine and it becomes more popular with our students each year (RUSC1).

However the question to ask is are they sustainable in the long term using the current system? Especially when there are multiple sources of funding that dictate how they should be administered, multiple providers who are in competition, when there is difficulty from those outside these immediate systems, and certainly within the NTDHCS, to determine what is occurring? Is this the best way to organise placements when 100 weeks of tuition = 1 student return?

4.3.2 CPD

Continuing professional development was the next highest area of duplication identified. This was largely due to the variety of sectors of the Divisions of General Practice and the Rural Workforce Agencies. While the IMG workforce is largely an area of gap, a number of groups were identified as providing some aspects of education. However no one appears to be coordinating it. The NTGPE provide a bridging program consisting of cross cultural education, the Top End DPHC provide some orientation and the hospital DCT provides some coordination aspects and is meant to offer professional support and career guidance.

The DHCS stakeholders need to be rationalised and absorb the rural workforce agencies and SPA in one division (R3).

There are lots of people providing CPD, it needs a coordinating committee and better communication (R24).
4.3.3 Cross cultural education

The third most significant area of duplication was in cross cultural education, which varies from a one hour session provided as part of hospital orientation / induction, to three days for GP registrars. Every group does this themselves and while it provides an excellent topic for interprofessional learning with other health related disciplines there was no evidence that this was occurring.

*No we don’t talk with nurses or allied health at all. Good cultural educators who understand the audience are very hard to find...the educators also need professional development...it is a capacity issue for cross cultural education; there is no reason why we can’t do it (R11).*

While it was beyond the scope of this review to determine the quality of the cross cultural education provided, what is clear is that there are limited Indigenous educators in the NT and everyone has some sort of cultural awareness program, which is essential for culturally safe practice. The current way in which this is undertaken is ad hoc and as good as the person running it. This is not sustainable in the long term and does not provide the best use of these valuable human resources. There exist real opportunities for the NTDHCS to take the lead in developing a well coordinated process for cross cultural education that includes all health disciplines as well as medical staff and students. This model would fit in well with the national agenda towards interdisciplinary education and should be explored.
4.4  Where are the gaps?

Respondents were asked to identify any specific gaps that they had observed. Not all respondents were asked this question, and some identified more than one (n=55).

4.4.1 Pre vocational sector

The major gap identified by 40 percent of respondents was in the pre vocational sector – those undertaking hospital based training as interns and junior doctors. There were a significant number of issues raised including: the quality of training, lack of release for training time, no training budget, conditional accreditation of training which was due to expire, no dedicated DCT, poor funding of the DCT position, poor coordination of training, a lack of focus on education and poor pay and conditions, which were quoted on several occasions to be the 2\textsuperscript{nd} lowest in Australia.

Some (junior doctors) won’t come here due to poor pay and conditions, others won’t come due to poor training, and others won’t come due to the accreditation issues…there is a dysfunctional administration at the hospital (R15).

A major concern raised was that there has been no dedicated DCT at Royal Darwin Hospital for almost a year for a variety of reasons, and the Alice Springs position is very fractional on top of a full time clinical specialist load.

The DCT role is ridiculously under funded…it doesn’t tie in with anything and there is tension between service provision and training (R12).

The hospital is dysfunctional…there is no DCT, no career planning, it is all done at secretarial level...the morale at the hospital is the lowest I have seen it in 13 years (R5).

Additionally the issue of the accreditation of the pre vocational training at RDH was of significant concern of respondents, who worried that the training time of junior doctors won’t be counted should a period of non-accreditation occur.

Recruitment was also reported as taking precedence over training at RDH and ASH. There is little understanding of the new junior doctor curriculum framework, by those responsible for its implementation. This is largely due to there being no NT PGMC and therefore no voice on the Australian Confederation of PGMECs where the new PGY 1+2 curriculum was developed. This also means there was no NT Health specific input into this curriculum development process, which given its unique training environment is an opportunity missed. Retention of junior doctors is also reportedly poor because of lack of importance placed on their training pathways – they often do intern year then go elsewhere (Queensland in many cases) for accredited PGY2
and 3 training. Dissatisfaction was also raised with the lack of flexibility of terms offered and the duration of the terms.

*Education is our means of retention (R33)*

*I am going away (to another state) to do some proper training as there is no structured training here (RDH), it’s not coordinated, we get bullied into doing terms we don’t want to (R15).*

![Figure 4.4 The top five gaps in medical education and training in the NT.](image)

**4.4.2 IMG workforce**

The second most significant gap identified by almost 30 per cent of the respondents was in the International Medical Graduate (IMG) workforce, who reportedly make up over 33 per cent of the total NT workforce.

*There is nothing for them...they need to feel part of the community...where they can develop and thrive...in an ideal world it would be a collaborative approach where the NTDHCS takes the lead and develops some policy regarding the retention of IMGs that could feed into the hospital protocols, and Flinders and NTGPE should be in on it too (R11).*

While a variety of different organisations were identified as providing some aspects of orientation, training and support there is no coordinator of these activities, which appear adhoc and in most circumstances are on user pays basis such as the AMC examination preparation.

*It’s no wonder people say they (IMGs) are treated so badly, because they are treated just like second class citizens in terms of their training. When I was sitting my exam and I went to the pre-exam workshops, I found out that there were about 10 international medical graduates who were going through the pre-exam program who have no access to the other registrars who were on the official training program ...they didn’t have access to the resources, couldn’t achieve what the other registrars who*
were on the official (GP) training program (such as) conferences and being able to go along to the small group meetings and stuff … they were cut out of joining in with other registrars who were on the official training program (CS2).

IMGs have special needs when they move here from other countries, apart from those associated with their professional medical registration and training. Some of these relate to settling in to a new country and culture with a family, such as schooling, finding suitable accommodation, transport, being unable to access the Medical benefits scheme for their families, language, family issues and those associated with working in a foreign cross cultural setting. This leaves significant gaps in the areas of orientation, support, cross-cultural training, self-care and personal and professional support – some of the major issues defined as vitally important when trying to retain doctors. These factors also provide an opportunity for leadership, collaboration and coordination on the part of the NTDHCS and the providers of medical education and training.

The other important issue reported as a significant gap relates to the reason IMGs come to Australia. It is not just for work but also for training and this is a gap in what is currently offered, as there are poorly structured pathways for career development and distinct barriers were identified, such as multiple state registration requirements.

Two particular models of support were identified for IMGs that warrant further investigation. The Rural Outreach Vocational Education (ROVE) program provided by GPET and the Queensland Health IMG Supervisors training module which will be released by ACRRM in December.

IMGs need to feel they are part of the community where they can develop and thrive. In other states there is dedicated medical education for IMGs which includes cultural issues, registration, self care mentoring a full on program and where the AMC state they must do a program (R11).

4.5 Who is the leader?

To enable the review team to identify who the stakeholders saw as the main leader of medical education and training in the NT, respondents were asked who they saw as being ultimately responsible for it. This question was not asked in every interview (n=40) and it was clear that many respondents had never thought about it.

This question resulted in a variety of responses with 38 per cent stating that no one was responsible for medical education and training across the NT, and 28 per cent identifying
NTDHCS as responsible. Others stated particular organisations such as NTGPE and the NT Clinical School, or Divisions of General Practice, or the learners themselves.

*There is not one person who is responsible...the medical advisor does not see it as his role, GPs are doing good learning, the public sector is not set up and Alice and RDH are doing their own thing ...the left foot doesn’t know what the right foot is doing... Everyone in Darwin, the politicians and health executives, are planning this wonderful revolution of health care (in the building healthy communities) but it is not what is happening on the ground (R9).*

This factor is a key finding in this review process as it indicates a lack of leadership regarding medical education and training across the NT and a lack of coordination of what exists. It does however also provide an opportunity for the NTDHCS to take on a leadership role.

*The NT Government has a real opportunity to be the leaders in medical education (R30).*

However those from the NTDHCS did not see this as their primary role. They saw it as service provision.

*This is not our core business (training)... We don’t know what they (trainees) are doing, what they need to be doing, and what resources are needed (R55).*

*...there was a lack of leadership, at least around coordination of medical training in the Northern Territory. I don’t think the NT is unique in that. But I do think that for the size of our jurisdiction we could get a better handle and have a better system around medical training than we currently do (R56).*

![Who is ultimately responsible for medical education and training in the NT?](image-url)

*Figure 4.5 The top four groups identified as responsible for medical education and training in the NT.*
4.6 How appropriate is the training?

To enable the review team to identify where the greatest areas of need were, respondents were asked to rate the appropriateness of medical education and training on a scale of 1-10 across the NT in four main areas:

1. In providing a suitable workforce to meet the needs of the NT population
2. In meeting the educational expectations of the participants undertaking the training – undergraduates, prevocational and vocational training sectors
3. In meeting the needs of the International Medical Graduate (IMG) workforce
4. In providing a suitable workforce for the NT.

Not all respondents were asked all questions and some stated they were unable to answer some. Many respondents also wanted to give different ratings for different parts of training, for example: one rated undergraduate as 7-8, public health training as a 10, and intern training as 3. These were therefore included as three different responses. Two respondents rated IMG training as a zero. This is therefore an overview of responses given by approximately 70 per cent of the respondents.

![Figure 4.6 Rating the appropriateness of medical education and training in meeting four particular areas on a scale of 1-10.](image-url)
4.6.1 Barriers to retention

The provision of doctors who can meet the health care needs of the NT population, which is significantly Indigenous, means that particular posts need to be established in these specific areas. A number of barriers to expanding the trainees' exposure to a range of Indigenous health experience were identified.

4.6.1.1 Indigenous health posts

Many public health trainees undertake posts with aero medical as DMOs, which are limited to 2 years. Other public health trainees interested in Indigenous health have to resign from NTDHCS positions to undertake an AMS post. If they resign, they lose their superannuation and conditions of employment etc to undertake a six month post, as the current structure requires them to be employed by the group where they are undertaking their post.

Working in the community controlled sector gives you a completely different set of perspectives than working for the department ... it would be terrific if one of our trainees could go and work on a rotation at Danilla Dilba or Wurli for 6 months, but they just can’t get it together and look at it to the detriment of the trainee. This is an issue across Australia for Public Health trainees...the capacity to give people that depth is difficult. I just don’t think the Faculty has realised the need to do that yet, it would greatly benefit public health training (R53).

We could have remote Indigenous specialist physician programs ... we could have more cooperative programs and enhance our programs (R16)

This issue was identified several years ago in general practice training, which provides an excellent model of vocational training that other Colleges should be encouraged to explore. The general practice model exposes trainees to a variety of posts, including those in an AMS where pooled Medicare funds are used to pay registrars undertaking these terms. This includes salary, on costs, superannuation, practice subsidy costs, travel and accommodation, and provides a win-win for AMS’s as they are able to also retain funds generated by registrars from Medicare rebates. One regional training provider who provides orientation, teaching and support to all trainees coordinates the education and training. Practice and community-based teaching quality is maintained by accreditation of a variety of interesting posts, ‘train the trainer’ programs, regular professional development and dedicated NTGPE staff who have teaching, support and mentoring roles.

The effectiveness of these programs in keeping GP Registrars in the NT has been proven with reportedly 49 percent of registrars staying 4 years and 31 percent staying 10 years or more in the NT. On averaged NTGPE state that this equates to 1.8 registrars staying in the NT for each year of their vocational training program.
4.6.1.2 Remuneration

The enterprise bargaining agreement (EBA) was being negotiated at the same time as the consultation process was occurring. Due to this timing many respondents across all sectors of the workforce commented on their dissatisfaction with their pay and conditions.

Ortho surgeons need remote supervision...they are not paid appropriately...the award massively underestimates the role...it is culpable really...people are ready to walk (R12).

Consultants commented on their poor pay and conditions, which result in many consultants leaving or not applying for senior positions once they find out the conditions of an advertised position.

Specialist salary is the lowest in Australia – their base salary and allowances. They usually get $15,000 pa for allowances, here they get $9,000ish...there is ill feeling among consultants...we lost 10 consultants in the last 18 months due to pay and conditions, they were mostly replaced by IMGs many whom are excellent, but we can’t afford to be losing consultants (R15).

I talk to them on the phone when they ring about a position and they sound really keen and they ask what are the conditions and I tell them and they say ‘what else’...like housing, a car, accommodation, salary packaging...I say that is it and they don’t apply...salary sacrificing you can only do with super, hospital doctors get $7-8000 but public health doctors in NT aren’t allowed to, if you go to SA or WA you can (R53).

4.6.1.3 Supervision

Supervision was another important issue raised by registrars and consultants in particular. The current system, where there is a closer working relationship with consultants, is one of the features that attracts and retains medical students and interns to the NT. However it is not sustainable in the long term and requires review.

We cannot keep this up (supervising multiple layers) we are burning out (R5).

We have always coped with everyone doing a bit more but we can’t anymore (R16)

We are trying to coordinate rotating programs between Darwin and Alice...there is no cohesion or organising this (R16)

We are running out of people to supervise in the bush (R21).

4.7 What are the priorities?

To enable the review team to identify the areas for prioritisation, participants were asked if there was only one thing they could change to improve the quality and coordination of what currently exists what would it be?
Responses indicate distinct differences in the priorities between providers/program managers and trainees regarding the one thing they would like to change. The issues for hospital doctors revolve around workload and the inability to have dedicated time for training, which was more severe in small hospitals such as Gove District Hospital where doctors are unable to attend training sessions, even when organised, because of staff shortages. The providers want collaboration and coordination through a ‘body dedicated to clinical training’ to occur and an ability to be able to identify what is needed. The one consistent thing they identified is that they all want medical education and training to be taken seriously and that this could occur through restructuring what existed.

![Figure 4.7 The Top 7 priorities for change](image)

Figure 4.7 The Top 7 priorities for change

There are great opportunities for training up here...RDH is the place in Australia to do generalist procedural training as the top centre in Australia...there needs to be a willingness by specialists in RDH to do this and a structure to make it happen...there are terrific opportunities to make it a centre for excellence for generalist procedural medicine, with parallel pathways...ACRRM has a vision for smaller places that will pull rural Australia out of the quagmire for critical care (R4).
CHAPTER 5. A STRATEGY FOR THE FUTURE

The Northern Territory is the ‘land of opportunity’ for medical education and training. It provides an environment where there is fascinating medicine, remote cross cultural experiences, tropical medicine, infectious diseases, opportunities for the development of rural generalist procedural skills, useful infrastructure and multiple interdisciplinary opportunities for engagement that are in line with the national health workforce agenda. Due to this there is an increasing demand for student placements, which is set to increase as medical student numbers and the overall health workforce increases.

The potential for creating a unique NT model for medical education and training in this environment are endless, in particular:

- The promise of a home grown workforce for generalist procedural doctors through different training and career pathways for NT doctors and IMGs in particular
- Opportunities to develop the notion of ‘Centres of Excellence’ for generalist procedural skills development and remote, Indigenous, tropical and public health, and
- The untapped potential with South East Asia and close links with other countries.

5.1 A NT strategy for a sustainable future

This chapter is based on the findings of this review and addresses the four main identified areas of need:

1. The development of a coordinated, cohesive and efficient flat structure for the organisation of medical education and training across the NT, which includes clearly identified roles and responsibilities
2. The need for IMGs to be valued, well supported, and to have a career and training pathway as well as a future in the NT
3. A process to identify a coordinated approach that will meet the demand for medical student placements to ensure they achieve their defined goals and grow the NT workforce
4. Improving the pathways between the hospital and the community and the quality of training in line with the national agenda.

This strategy for the future, builds on the strengths of what currently exists to ensure sustainability. It includes:

- The current – A map of what exists at present to build on – through a mapping of the current education and training providers and activities
The immediate – A strategy for two important arms, which will assist the NTDHCS to clarify the issues of leadership, coordination and address current accreditation gaps.

1. The proposed accrediting arm is unique in Australia, will be efficient to run and will meet the particular NT context needs
2. The independent medical education, training and coordination arm, that focuses on education, provides leadership and coordination, addresses the needs of the IMG workforce, clarifies the NT agenda in reflecting the needs of the high Indigenous population and the national agenda.

The future – A strategy to address the projected demand for medical student placements that will assist the NTDHCS and all other providers to clarify their role and responsibilities.

5.2 The current

5.2.1 Map current education and training providers and activities

The mapping of the current education and training providers and activities to, and provided for, the medical workforce across the NT was a complex, time consuming and at times confusing process, particularly in the medical student sector. Over 37 providers were identified in this process, excluding the numerous general practices and AMSs that provide education and training activities and those activities provided through external CPD programs and scholarship programs. For such a small number of doctors the numerous providers, activities and accreditation requirements are based on a model that you would find in a state with a much larger number of doctors. The mapping process therefore consisted of developing detailed tables for each of the four training sectors:

- medical students
- the prevocational sector
- vocational trainees and
- continuing professional development.

An overview and a visual snapshot of each are provided in Chapter 3 of this report. These were used in the development of the strategy described below.

The consultation process identified considerable confusion regarding the requirements of the numerous accreditation bodies and the accreditation of training posts by specialist Colleges. This was particularly true of those nonmedical stakeholders who play a role in medical education and training.

*We need to know what are the ground rules for external accreditation...it seems overly technical...what are the medical links with ACHS and specialist accreditation by colleges ...what does it do, how does it fit into the whole system...it seems like a professional*
wank…does it matter on the ground? Do all specialist accreditation make sense, are they all necessary, if not let’s do 5 and 6 really well… (R52).

Therefore the multiple accreditation processes were also mapped and reported in each section.

The mapping process identified the need to develop an innovative flat reporting system for medical education and training in the NT that is coordinated across all sectors and provides for workforce growth.

Refer to Chapter 3 for the details of the mapping process; and Chapter 4 for the snapshot and discussion.

5.2.2 PGMC issues

One of the most concerning gaps identified in the mapping and consultation process was in the prevocational sector, where there was no process to accredit junior doctor training, as no Post Graduate Medical Council (PGMC) has existed for approximately two years. This was an issue raised consistently by those providing training to PGY 1-2 doctors and the NT Medical Registration Board in particular. Without accreditation as a training hospital, intern training at RDH could not be counted as training time, which could result in high numbers of junior doctors leaving and the hospital unable to attract more replacements.

Serious concerns were also raised throughout the consultation process regarding the conditions placed on the provisional accreditation of the RDH as a training hospital for interns (PGY1), which is due to expire in November 2007. These issues require immediate action from the NTDHCS.

The model and recommendations presented below are based on the NT context, efficiency, the accreditation needs and the potential for conflict in establishing a group of interested people to undertake the accreditation processes, who wear a number of hats and may also be the providers of medical education and training in the NT.

Recommendation

The NTDHCS requests an extension of its accreditation of intern training at RDH for a three-month period, as a matter of urgency. That this request is based on being able to implement the recommendations of this review.

That a Joint Accreditation Committee be funded and established as a matter of urgency.
Their role would include undertaking the 3-4 yearly accreditation of junior doctor education and training processes for the two major NT teaching hospitals, and any associated monitoring role and responsibilities.

That the Committee membership consists of no more than 10 members and is chaired by a NT member. The Committee be made up of 5 members from the NT, including one representative of the NT Medical Registration Board and 5 members from either an existing PGMEC from another state, such as NSW, Qld, or SA; OR five members identified through an external tendering process OR though appointments made based on their expertise.

5.3 The immediate – providing a cohesive and coordinated approach

To provide a coordinated and cohesive approach to medical education and training across the whole of the NT, a rethinking and restructure of the current system is required. The system must build on the strengths of what exists in the NT, synergise the roles of the key players into a horizontal structure that is efficient and effective to run and provides cohesive leadership across all sectors of medical education and training, through innovation. The following model includes the identification of key roles and responsibilities of government, training providers, professional associations and non-government employers, and a process that will develop clearer pathways between the hospital and the community training institutions.

5.3.1 An NT Directorate of Medical Education and Training

Recommendation
An NT wide Directorate of Education and Training be established with a focus on education and training.

The role of this Directorate is to focus on education and training NOT workforce issues, or its intent will be lost. The Directorate should NOT be seen as yet another layer of hierarchy, or another silo, but a flat structure developed to facilitate and coordinate the movement of medical education and training through the pipeline from the university sector, through to the prevocational level and the vocational training sector into CPD. It is envisaged that workforce issues would be addressed by employers and the various workforce agencies already in existence. The Directorate could be funded through a combination of funds from those providing medical education and training in the NT and through the reallocation of funds for those positions that would be restructured in this process. This could be done on a ratio basis. Irrespective of the funding sources this initiative is seen as the core to the success of this strategy.
### 5.3.1.1 What does it do?

The Directorate of Medical Education and Training would be an independent and high level Directorate with an **Executive Director.** This would be an independent appointment that reports directly to the CEO of NTDHCS and the NT Minister of Health, to avoid the potential for conflict between the numerous interested stakeholders i.e. a separation between the church and the state. The interface between the Directorate, the NTDHCS, the various silos and health care system could be through a high level governance structure, or a committee, representative of all NT medical education and training providers.

*Figure 5.1* Describes how the Directorate could work, using a spotlight approach across all sectors of medical education and training. It also demonstrates the cross over between sectors, for example: the potential link between the NT Clinical School and their potential role with interns to ensure the transition is seamless.

![Figure 5.1 Spotlighting core areas of responsibility](image-url)

**The role of the Directorate is to:**
- Provide leadership, guidance and advice on all issues to do with medical education and training across all sectors of the NT
- Undertake a leadership, central coordination and communication role with all providers of medical education and training across all sectors and to provide advice to the NTDHCS regarding the coordination of resources across the vertically integrated spectrum
- Ensure that the training provided meets the relevant standards and accreditation requirements of all sectors, in particular the prevocational sector. This includes
overseeing the implementation of the national junior doctor curriculum and assessment processes

- Oversee the coordination of IMG issues across the NT, to ensure they are supported in their roles and that their professional and personal support needs are met. This includes the changing nature of AMC requirements, and the registration requirements for IMGs in the dual pathways to registration
- Develop a model for a career training pathway for IMGs in the NT and advocate for change
- Provide input into the national medical workforce agenda to ensure that the NT is locally responsive to national activities
- Address issues raised in the multiple medical silos of specialty education and develop processes to streamline communication between them
- Develop NT wide policy on medical education and training issues, research and evaluation
- Investigate and facilitate processes to establish a centre for excellence in remote health, Indigenous health and rural procedural generalist medicine.

**Priority 1.** One of the first roles of the *NT Directorate of Medical Education and Training* would be to meet with the Medical Registration Board and the key stakeholders to consider the options for future accreditation of intern training at RDH as recommended in 5.2.2. above.

**5.3.1.2 Staffing of the Directorate – Roles and Responsibilities**

The NT could be seen as transforming from a ‘Clinical Health Service’ to a ‘Teaching Health Service’. To facilitate this process within the Directorate, four senior education and training staff positions have been identified, which should be linked with joint academic appointments with a university. While these are all new positions, they are the result of several positions being restructured to avoid duplication and tension, and to ensure that the focus is placed on education and training, as opposed to the dominant clinical and workforce focus. These roles all interrelate to form a small dynamic team.

**The four specific staff positions are:**

1. **The Director of Hospital Education and Training**, which would be undertaken by a senior medically qualified person with strong educational qualifications and experience, who reports directly to the Executive Director of the Directorate. It is envisaged that this person would be logistically placed in the Directorate with a joint academic appointments with a university. **The focus of this role is on medical education and training**, rather than a clinical and workforce focus, though this person should also have a notional joint clinical appointment e.g.
0.2 FTE. This would be a full time position with the minimum of a half time similar position based in Alice Springs. These appointments should be determined on a ratio basis of the number of trainees to the FTE role.

This role is critical, as it is envisaged that it will take over the medical education and training responsibilities of the existing DCT positions at RDH and ASH, which would cease to exist in their current form. This would then ensure that there was a clear separation between the education focus and workforce issues and recruitment, which would continue to occur in the hospital administration sector. This will obviously necessitate some delicate negotiations.

**Priority 2.** One of the first roles of the Executive Director would be to negotiate this position with the existing stakeholders to determine how they would interface with the hospital administration, the clinical department directors, the clinical schools, the university, the Colleges and the Directorate.

It is envisaged that the Director of Hospital Education and Training will:

- oversee and facilitate medical education and training across the continuum from medical student, to intern, to RMO and specialist training to make it a seamless process
- facilitate the coordination of medical education and training processes in the hospital sector
- work with the various hospital clinical directors, and non medical staff in the Directorate to implement innovative junior doctor training in line with the national junior doctor curriculum framework and assessment processes
- oversee training programs and interface with the various medical Colleges on education and training issues
- provide career advice and guidance to medical students, interns, prevocational and vocational trainees, and IMGs who are in the hospital system
- advise the Medical Superintendents, Clinical Directors and the Executive Director of the Directorate regarding hospital junior doctor and medical student education and accreditation issues.

**2. Medical Education Coordinator(s)** – would be non-medical person with education qualifications and extensive experience in medical education, Indigenous health, health education or similar. These are senior full time roles, probably at the equivalent of senior lecturer level with a joint university appointment.
The roles would include:

- working closely with the Executive Director, the Director of Hospital Education and Training, the NTDHCS and the hospital and community providers of medical education and training in the NT, to advise on all aspects along the medical education, training and accreditation pipeline
- overseeing the overall coordination of all medical education and training across all sectors and disciplines – in particular the practical and organisational aspects of hospital based medical education and training and the junior doctor interface
- developing policy on student placements in consultation with universities, NTDHCS and providers
- overseeing the coordination of cross cultural education across all sectors and with other disciplinary groups to ensure quality, consistency and the best use of available human and physical resources
- assisting with the coordination of IMG training and support issues as required.

3. **IMG Support and Cultural Coordinator(s)** – these roles could be filled by a non-medical or an Indigenous person, with a health background such as – social work, psychology, cultural education, or someone with a good understanding of medical education and training in the NT, Indigenous health and issues to do with IMG workforce education and training. This role should be at a senior lecturer level with a joint academic appointment. There are two main features of this role, which could be undertaken two different people depending on their skill mix.

This role would include:

- Overseeing the coordination of cross cultural education across all training sectors of the medical workforce, to ensure limited Indigenous resources are being best used through providing quality coordinated multidisciplinary processes
- Providing support for Indigenous doctors and medical students through their training transition
- Investigating the feasibility of establishing a cultural mentoring program
- Supporting the IMG workforce regarding education and training and providing pastoral care personal support
- Coordinating IMG issues across the NT, to ensure they are supported in their roles and that their professional and personal support needs are met. This includes advising on AMC requirements, and the registration requirements for IMGs in the dual pathways
- Work with other members of the Directorate in the development of a model for a career training pathway for IMGs in the NT and advocate for change
- Working closely with the Executive Director, the Director of Hospital Education and Training, the Medical Education Coordinators, the NTDHCS and the providers of medical
education and training in the NT to advise on all issues to do with IMG medical education, training and support as well as cross cultural education.

4. **Administration Support Officer(s)** – would be a senior role for a practical person familiar with medical education, training and accreditation issues, who would provide support across the Directorate.

![Role of the Directorate and connections with the providers of medical education and training](image)

*Figure 5.2 Role of the Directorate and connections with the providers of medical education and training*

*Figure 5.2* provides an overview of the connections between the role of the Directorate and the pipeline through the four medical education and training sectors.

5.3.1.3 **Where would it be located?**

The location of the Directorate is vitally important, as it needs to be independent yet physically accessible for the Director of Hospital Education and Training and the Medical Education Coordinator to have easy access to the hospitals. It is strongly recommended that this Directorate **does not** sit within 87 Mitchell Street in Darwin to ensure it is seen to be independent and accessible to all providers of medical education and training. The geographical closeness of Block 4 of the Royal Darwin Hospital campus, or Charles Darwin University campus, may offer some alternatives. Also some of the positions will need to be based in Alice Springs and fractional appointments could be made realistically based on the number of interns and trainees.
5.4 Medical students – the future

There has been significant, committed and ongoing investment in medical student education in the NT through the establishment of the NT Clinical School some ten years ago and the establishment of a NT Rural Clinical School two years ago, which has attracted significant funds and committed staff. The NTCS at the time of the review had a total of 32 students undertaking long-term placements of 1 year or more. This includes NTCS, Flinders, JCU and RCS students. Additionally there are over 370 short-term medical student placements occurring in the NT each year. Of these around 200 are hospital placements and 170 are in rural or remote general practice, or community placements. The largest numbers of these are the RUSC placements, which are coordinated by the NTGPE, who also coordinate the Flinders University NTCS community placements in Year 3.

However, the imprint these clinical schools are making is like a watermark, when compared with the rest of the medical education and training activities occurring in the NT. Those external to the clinical schools were unclear about the difference between the NT Clinical School and the NT Rural Clinical School and their roles, and why there were two entities, which were seen as doing the same thing. In fact many of those interviewed did not realise there were two different clinical schools and there was considerable confusion.

The Clinical School is isolated, it is funded separately…it’s part of us, but not part of us…we don’t know the full scope of it and we need to bring it into connection with others…what is the relationship with the DCT positions?…how can they relate to other providers…what are their support functions and those outside the hospital? (R50)

The greatest identified barrier to coordination are the numerous funding streams that facilitate student placements, such as the MRBS and BMPs bonded scholars, John Flynn Scholars, and the RUSC program, which is managed by NTGPE.

There were distinct areas of duplication in student placement coordination with NTGPE and the NT Clinical School coordinating particular placements, causing tension between the two groups.

There were also significant gaps and missed opportunities to link with the vertical integration of training to areas of need, such as intern training and the needs of IMGs. While this may not usually be the role of a university, it is a role that could easily be taken or contributed towards by the Clinical School.

What is the difference between a medical student completing their degree on 30th December and starting as an intern on 1st January…nothing much. So why do we separate their roles so distinctly? (R91).
The way in which these two clinical schools are funded appears to be their greatest barrier. It seems that funding streams have effectively moulded the identity of these schools, rather than the actual roles they undertake. They are both administered by the same university – Flinders University – with the same staff, who come under the same clinical dean, and they are dealing with the same students, who at times appear to be counted twice. The operational combined budget of over $3.4M for such small student numbers is not considered sustainable in the long term. Given the increasing number of medical students seeking placements in the NT, there is a need for one streamlined coordination system, rather than that used by other states. One respondent stated:

*The notion of a rural clinical school in the NT is not a useful construct...as it is based on a big university in an urban area and distributes to a rural area...this is a different construct. The whole of the NT is rural and there is no medical school, it therefore does not fit there (R101).*

The identity of the clinical school(s) needs to be clear. While there is evidence of an increase in intern numbers from those students undertaking the NT Clinical School program \(^{27}\), the Flinders NT origin student quota of 10 per annum, and Indigenous student quota of 5 per annum, has never been met. It appears that the NT origin students are more likely to choose other northern Australia Universities rather than Flinders, with approximately 40 enrolled at JCU. The current structure does not afford opportunities for competition and collaboration from other providers and it is not sustainable in the long term. This requires review, as there is significant evidence that those who were born and bred in rural areas are more likely to return and work there in the long term, and it is a major strategy in growing and retaining the entire rural health workforce \(^{36-39}\).

There must be one central coordinator of student placements, with small numbers and limited resources and infrastructure for accommodation etc. The current system of two providers coordinating placements is time consuming, confusing and creating tension. There appears to be almost as many people coordinating, administering and developing policy for these placements as there are clinical school students being placed. Additionally students from other health disciplines, such as nursing and pharmacy, also undertake placements in the NT and there are opportunities for a central body to undertake the coordination aspects of these and allow the universities to focus on the educational aspects. This warrants further exploration by the NTDHCS in consultation with all placement providers.
Figure 5.3 Prioritising medical student placements in the NT.

Figure 5.3 indicates a way of prioritising medical student placements in the NT, whereby those who are already undertaking long term placements, those who are of NT origin, or Indigenous, are the highest priority. The second priority are those on selectives and electives, and rural scholars. The final are those on undertaking short-term placements. These could be undertaken using a hybrid model such as on a competitive basis where a percentage are offered places and the remainder are selected using a ballot system. Resources and time could also be allocated in this way as a short term way of managing the current influx.

**Recommendation**

The NTDHCS develop a policy on the prioritisation of medical student’s placements that reflect interprofessional learning opportunities.

The NTDHCS consider an incentive process for highest priority medical students, where they are automatically offered an internship as part of their placement contract.

That a longitudinal database of all medical students of NT origin be linked with hospital records so that NT origin students can be easily identified in the hospital sector. The Committee of Deans of Australian Medical Schools model offers one model.

That the NTDHCS establish a workforce database of all medical staff in the NT and put processes into place to ensure it is updated, accessible and maintained.
5.4.1 Medical students in 2012

Medical student education within the current structure is not considered sustainable in the long term, with the predicted influx of medical students in the next 5 years and the existing demand for student placements.

It appears that the question that the NT needs to ask is ‘what are we educating medical students for’? ‘Is it to meet the medical education needs of universities and the profession, or is it to educate a suitable workforce to meet the distinctive needs of the NT population?’ If it is to meet the needs of the NT population then a different model needs to be seriously explored and planning needs to occur now. Five years notice is required to be given to change the existing structure of medical education, as outlined in the contract between the NTDHCS and Flinders University. Planning for the future is required now, to enable a number of options to be explored. These issues are beyond the scope of this review. The following recommendations are made to assist the NTDHCS and the various stakeholders to examine these issues and to develop a model that will be sustainable in the long term.

Recommendation – Medical education summit

A two-day medical education summit, attended by the decision makers and leaders of medical education, is held in early 2008.

The summit be externally facilitated to avoid the potential for conflict between the many interested parties.

The purpose of the medical education summit is to determine the structure for a sustainable, realistic, workable model for medical student education for 2012 in the NT. This summit should also consider the notion of developing an exclusive model in the NT that meets the NT population’s health needs and considers the potential for its own unique medical school.

The model should at least:

- build on the strengths that the NT has to offer – remote Indigenous health, infectious diseases, chronic diseases, international health, tropical and public medicine and the new acute trauma centre
- consider the increased demand for placements and the coordination of them, so that these placements ‘value add’ to ensure this is a win-win process where the NT achieves a guaranteed workforce through providing excellent training opportunities
- consider the impact of the increase in the medical student placements at this time, and how to best facilitate this process in a proactive way
- consider processes to accredit remote medical student placement sites, that use innovative approaches for different types of placements that reflect the needs of the
NT population – interdisciplinary and team approaches to understand the roles of other health professionals and the remote cross cultural contexts in which they will work

- growing the local NT and Indigenous medical workforce for retention – dedicated intern offers for those undertaking longer student placements, additional academic support, opportunities for remote community based learning
- identify how to establish potential international links with South East Asia, in taking medical students from this area, through the development of joint models and standards
- consider other innovative models that will meet the particular requirements of the NT – such as small dispersed population and high remote Indigenous populations
- There are two particular alternative and innovative models that warrant further investigation and should be presented, as a minimum, for discussion at the summit:

1. **The Canadian distributed learning model**, which has eleven satellite campuses\(^{(40)}\). The most advanced of these is the University of British Columbia model with satellite campuses in Victoria and Prince George in 2004\(^{(40)}\). And the community based medical education model from the Northern Ontario School of Medicine\(^{(39)}\), which is a problem based learning model conducted at two main sites at Thunder Bay and Sudbury delivering off-site electronic and face to face instruction with an emphasis on local needs\(^{(40)}\). For one month of their first year, and 2 months of their second year, students are placed in remote and rural Aboriginal communities and get all of their instruction electronically. By their third year, they do 9 months in a remote community working with family physicians rather than in clinical rotations in major teaching hospitals, similar to the Flinders model\(^{(40)}\). This model is worth consideration as it delivers medical education to students in similarly geographically and culturally diverse remote locations, and

2. **The Australian Tropical Universities Health and Medical Partnership model**, which was collaboratively developed by James Cook University and the Northern Territory University (now CDU) in 2000. The model has a northern Australia focus that includes: the Kimberley, the Northern Territory and North Qld, with potential for South East Asian links, a community based multidisciplinary structure that focuses on expanding and stabilising the workforce and a set of guiding principles and a solid plan to take it forward\(^{(41)}\). While it was developed in 2000 many of the principles and issues remain current.

These models should be examined in detail and the potential for a combined, or new innovative model (s) that meets the particular and future needs of the NT in 2012, be investigated and developed sufficiently for presentation and discussion at the summit.
5.4.2 Who should attend? – Proposed summit participants

This is a summit for the leaders of the core organisations and should be attended by those at the highest decision making level. The participants should be self-funding, with additional funds for costs such as venue, facilitators etc provided by the NTDHCS. It is envisaged that the summit should include approximately 30 people and at least:

- NTDHCS representatives – CEO, Assistant Secretary of Health level relevant to medical education and training
- Existing providers of medical education and training and the standard setters – NTDHCS, NTGPE, ACRRM, RACGP, AMC, Specialist college reps, hospital superintendents
- Deans or Vice Chancellors of interested or existing NT universities – Charles Darwin University, Flinders University, James Cook University, Western Australian Universities, international and any others interested
- Funders of medical education and training in the NT – NT Govt, Department of Health and Ageing
- AMSANT, Divisions, RWA and community stakeholders
- Medical registration board representative
- Others by invitation and determination of the NTDHCS.

5.5 International Medical Graduates – the ‘backbone’ of the NT workforce

International Medical Graduates (IMGs) make up over 33 per cent of the workforce in the NT and in smaller regional hospitals they can make up almost the entire medical workforce. This is largely due to their geographically restricted provider numbers, which are confined to areas of workforce need. They also have particular needs

*IMGs have special issues such as those that relate to pastoral care...and top ups in areas of their training...there is a need to have someone who has direct responsibility for IMG training and those issues related to pastoral care...in both Darwin and Alice Springs and particularly in the smaller (hospital) areas where the needs are even more critical than in Darwin...in places like Tennant Creek you might have others around but you even feel more isolated so somehow it needs to be more devolved down to the smaller hospitals (R4).*

This review identified a few agencies that were providing some kind of support for IMGs. These were largely through the rural workforce agencies GPPHCNT and through NTGPE who provide a fee for service bridging program. However no coordinated approach was identified for IMGs to
address their training and support needs. While IMGs substantially increase workforce capacity in the NT, there is little investment in their training and support needs and little value placed on the contribution they make. Yet several employers described them as having higher retention rates.

It might be better to have OTDs as a long-term solution as they stay longer. In Katherine no Australian doctor has been employed for more than six months...OTDs are captive for a couple of years (R3).

With the reported significant reduction in IMGs applying to come from the UK to Australia in 2007 (3), there is an urgent need for a model of training and support that provides IMGs with both training and career pathways.

The IMG population are not in training and many were specialists in their own countries and are very interested in a career pathway...we want to support them but there is nothing for them, there is no funding to support them. NTGPE offer a bridging course, which is fee for service, and we hoped the hospital would fund them. But the hospital has not come to the table...the first course was a resounding success. We need to be thinking in the long term (R11).

ACRRM, once established in the NT, provides good potential for IMGs to undertake both independent and rural training pathways. Other such models have been developed in other states in Australia and provide a full range of training and support designed to meet the needs of IMGs – mentoring, cross cultural issues, self care as well as training and registration requirements. GPET's Rural Outreach Vocational Education (ROVE) program, provides a medical education program to support local IMGs to achieve their Australian qualifications through an extremely comprehensive IMG education package (42). Qld Health in conjunction with ACRRM in 2007 are developing the OTD Supervisor Support Module, which provides supervisors with the specific teaching and supervision skills required for IMG supervision. Both of these and other IMG support programs are worthy of further investigation by the NTDHCS.

**Recommendation**

That the NTDHCS, through the Directorate of Medical Education and Training and in collaboration with the Colleges and other providers, develop a career pathway for NT IMGs that places value on the contribution they are making.

That the model developed:

- provides clear training and career pathways for IMGs
- considers the potential changes by the AMC in their introduction of the competent authority and the standard pathways
- includes pastoral care, family support, and professional support mechanisms
is a package that assists IMGs in overcoming the barriers to staying, and places value on the contribution they are making

explores the option of having joint training standards with other countries such as the UK, to enable IMGs to have their training time in Australia counted in the UK

considers supervision training, arrangements and support

identifies sources of funding to support and implement this initiative.

Registration arrangements from 1st July this year, the competent authority model, AMC has looked at there will need to be a group probably in each jurisdiction who will need to achieve AMC accreditation ...the AMC will accredit the process but not necessarily run the process ...it is going to look at people inside and outside the hospital system with those in area ...it seems to us that that a sensible solution would be establishing an accrediting body like the PGMC consisting of the same sorts of people who would sit on a PGMC it would have university representation, GP representation, DCT representation, Board Representation that could look at all of those areas of supervision etc (R4).

It is believed that action in these four main areas, through the implementation of this strategy, will assist the NTDHCS in guiding and growing a sustainable workforce for the future. As it will provide leadership regarding processes to achieve cohesive, transparent, and well-coordinated medical education and training and guarantee a modern workforce that will meet the NT's population health needs.
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FACE TO FACE INTERVIEW QUESTIONNAIRE
PROVIDERS, EMPLOYERS AND COMMUNITY STAKEHOLDERS

Name: \\
Date of Interview:  /   / 2007    Ph no \\
Address: \\
Position/Role: \\

NTDHCS ( ) Employer ( ) Provider ( ) Community ( )

Thanks for your time. As you are aware we are undertaking a review of medical education and training across the Northern Territory for the NT Department of Health and Community Services. The information we gain from these interviews will help us to develop a strategy to improve the coordination and cohesiveness of medical education and training across the NT.

OK to tape it:

Summary:

SECTION 1.   PROGRAM OVERVIEW
1.1 Can you please give me an overview of the medical education and/or training you provide here?

☐ How the system works – overview
☐ Programs offered
☐ Target group – u/grad () post grad () GP reg () Spec reg () IMG () CME /PD () other () .................
☐ How many enrolled ......................
☐ Where do the participants largely come from? NT numbers
NT () Qld () NSW () WA () Vic () SA () Tas () IMG () Combo ()

SECTION 2.   EFFICIENCY
2.1 How is the program /s that you offer funded? How much
Tick the major sources of funding
Com’wlth () GPET () College () University () Program () NTDHCS () combo list ..
other......................

2.2 What is the contribution from the NTDHCS?
2.3 Do you think there would be more efficient ways in which to fund medical education and training across the NT? YES () NO ()
If NO – So what are your ideas about how this could be done?

2.4 Are any aspects of your programs combined with other health professional groups? E.g. specialist trainees or nurses YES () NO ()

SECTION 3. EFFECTIVENESS
Coordination
I am now going to ask you some questions about the coordination aspects of medical education and training in the NT.

3.1 Who do you see is ultimately responsible for medical education and training in the NT?

3.2 On a scale of 1-10 how would you ‘generally’ rate the coordination of medical education and training programs across the NT?
1= extremely poor; 5 –OK; 10– excellent. 1 2 3 4 5 6 7 8 9 10

3.3 Are there any specific areas of duplication or gaps that you have observed?

3.4 Which aspects of the current medical education and training programs do you think are particularly well coordinated? Theirs + external aspects

3.5 Where do you think there is room for improved coordination in other areas?
And what are your ideas about how this could be done?

3.6 Do you think the pathways between the hospital and the community training institutions could be improved? Eg RCS

3.7 For non DHCS interviewees only
What communication do you have with the NT DHCS regarding medical education and training

3.8 For educators only DELIVERY MODES
I am now going to ask you about the training you provide here as an educator.
3.8.1 How do you currently deliver the training to these groups?
- Workshops () Experiential learning () Uni placements () lecture series () distance education () web based () videoconference () teleconference ()
- paper based materials () Supervised placements () Other ................................

3.8.2 How often does this occur?

3.8.3 What are the main elements of the training – content – emerg med etc?

3.8.4 Are there any opportunities for collaboration with other groups that you think could be seized?

3.8.5 If something goes wrong for a clinical placement who do you see is ultimately responsible for fixing?

3.9 What proportion of students / medical staff come back to the NT to work?

SECTION 4. APPROPRIATENESS

4.1 What do you see as the 3 greatest strengths of the current medical education and training processes across the Northern Territory?

4.2 What do you see as the 3 greatest barriers to achieving a cohesive, efficient and well-coordinated medical education and training across the Northern Territory?

4.3 On a scale of 1-10 how would you rate the appropriateness of the training in:
- 1= extremely poor; 5=OK; 10= excellent. 1 2 3 4 5 6 7 8 9 10
  - Providing doctors who can meet the health care needs of the NT population? 1 2 3 4 5 6 7 8 9 10
  - Meeting the educational expectations of the participants? 1 2 3 4 5 6 7 8 9 10
  - Meeting the needs of the IMG workforce? 1 2 3 4 5 6 7 8 9 10
  - Providing a suitable workforce for the NT 1 2 3 4 5 6 7 8 9 10

SECTION 5. CONCLUDING

5.1 If there was one thing that you could change to improve the quality and coordination of what currently exists in the education and training of the medical workforce in the NT what would that be?

5.2 Is there any thing else you would like to add or Are there any other questions that you thought I should have asked you and didn’t that your would like to comment on?
REVIEW of MEDICAL EDUCATION & TRAINING in the NT

The NT Department of Health and Community Services has commissioned RhED Consulting Pty Ltd to undertake this review and to develop a strategy to improve the coordination of medical education and training across the NT. We are currently collecting information from all undergraduate and postgraduate medical education and training providers who have students in the NT so that we can map the current providers, programs and activities. This will enable us to identify any gaps, duplication, strengths and weaknesses. We seek your advice.

Please return by Monday 10 September
By Fax: 02 6680 1958 Email: Christina.Wolfe@rhed.com.au

If you wish to discuss any of this further please contact Christina on 0409 426 887. This questionnaire will take about 10 minutes to complete. Thank you for your time.

Please tick the options that best apply and specify details where possible.

1. Please state the name of your university.

2. Please tick the name of the program/placement offered by your university in the NT.
   ( ) RUSC
   ( ) rural health selective
   ( ) elective
   ( ) John Flynn Scholarship
   ( ) Other please state

3. Tick the box that best describes your role.
   ( ) Program/Project Coordinator
   ( ) Placement Coordinator
   ( ) Other please specify

4. What year level/s undertake the NT program?
   ( ) clinical years of Undergraduate Course – usually the last 2-3 years of the course
   ( ) clinical years of a Graduate Entry Medical Course - usually the last 2 years of the course
   ( ) early years of an Undergraduate Course - usually the first 2-3 years
   ( ) early years of a Graduate Entry Medical Course - usually the first 2 years
   ( ) all years
   ( ) other please specify

5. How many of your medical students participate in the NT program each year?

6. How many weeks do these students spend in the NT?
   ( ) 2-4 weeks
   ( ) 4-8 weeks
   ( ) 8-12 weeks
   ( ) 3-6 months
   ( ) 6-12 months
   ( ) other please specify

7. Which health setting/s in the NT do your students mostly go to?
   ( ) rural/remote GP placements
   ( ) Aboriginal Medical Services
   ( ) Hospitals: Darwin or Alice Springs
   ( ) Hospitals - Gove, Katherine or Tennant Creek
   ( ) combination of these
   ( ) Other please specify
8. What is the main aim of this placement in the NT?
9. How is the program funded?

10. Is support and/or coordination for the NT component of your course provided by another organisation?

( ) NO

( ) YES, support and/or coordination is provided by another organisation

1. Which organisation (e.g. NTGPE) please state
2. Who is the main person you liaise with in the NT?
3. What type of support is provided? Please specify (e.g. placement coordination, funding, supervision, orientation, accommodation)

11. What orientation is provided to students prior to leaving for their placement?

12. Is the NT program that students undertake:

( ) Unsupervised/self-directed
( ) Supervised by educators or clinicians in the NT – if possible please specify who or their role title
( ) Supervised by educators or clinicians from your organisation outside of the NT

13. If there is a problem in an NT clinical placement, who do you see as being responsible for fixing it?

14. What are the three best things that students report about the clinical placements?

1. 
2. 
3. 

15. What are the three most common complaints that students report about the clinical placements?

1. 
2. 
3. 

16. What are the three main issues / problems that occur for you in the organisation of the NT placements?

1. 
2. 
3. 

17. If there was one thing you could change about the clinical placements to improve them what would that be?

18. Please provide any other information or comments that will assist us gain an overview of the program you offer in the NT and how it is coordinated.

Thank you for your time
REVIEW of MEDICAL EDUCATION and TRAINING in the NT

Thank you for participating in this case study. We are doing this case study to try to map your experience of undertaking medical training in the NT. IT will assist us with understanding the experience from the lens of a student or trainee. It will not have your name attached and we will de-identify it as much as possible, but there may be some aspects of what you tell me that may identify you is that ok...if not we need to establish what is and what is not on record. Can we have your permission to tape this?

Please tick the answers that best apply to you.

( ) Male            ( ) Female
( ) under 20      ( ) 20-25      ( ) 26-30      ( ) 31-35      ( ) 36-40      ( ) 41-50      ( ) 50+

Your place of residence before undertaking your current training / or position in the NT.
( ) Northern Territory
( ) Australian state or Territory, please specify;
___________________________________________
( ) International, please specify which country: ____________________________________________
( ) Urban            ( ) Rural            ( ) Remote

What is your current position?
( ) Medical Student Year level _________ University ________________________________
( ) Intern           ( ) PGY2 or PGY3
( ) DMO              ( ) Registrar, what specialty
( ) Specialist, what specialty

What hospital rotations/terms and placement have you completed in the NT and where?

Are you based at a hospital outside of the NT? ( ) YES      ( ) NO
If ‘YES”, which hospital?

Once your current medical training is completed do you intend to work in the NT?
( ) YES      ( ) NO      ( ) Unsure      ( ) I intend to work in the NT after a break

Any other comments
FOCUS GROUP

REVIEW of MEDICAL EDUCATION and TRAINING in the NT

Thank you for participating in this interview/focus group. As you are aware we are undertaking a review of medical education and training across the Northern Territory for the NT Department of Health and Community Services. The information we gain from interviews and focus groups will help us map what is currently provided and develop a strategy to improve the coordination of medical education and training across the NT. Could you provide us with some brief demographic information. Information collected will be confidential and will be de-identified for reporting purposes.

Please tick the answers that best apply to you.

( ) Male          ( ) Female

( ) under 20    ( ) 20-25    ( ) 26-30   ( ) 31-35   ( ) 36-40   ( ) 41-50   ( ) 50+

Your place of residence before undertaking your current training / or position in the NT.

( ) Northern Territory
( ) Australian state or Territory , please specify;___________________________________________

( ) International, please specify which country: _____________________________

( ) Urban          ( ) Rural          ( ) Remote

What is your current position?

( ) Medical Student   Year level _______ University __________________________

( ) Intern      ( ) PGY2 or PGY3

( ) DMO            ( ) Registrar, what specialty

( ) Specialist, what specialty

What hospital rotations/terms and placement have you completed in the NT and where?

Are you based at a hospital outside of the NT?       ( ) YES        ( ) NO

If "YES", which hospital?

Once your current medical training is completed do you intend to work in the NT?       ( ) YES        ( ) NO        ( ) Unsure        ( ) I intend to work in the NT after a break

Any other comments
Content of Medical Student Education Programs

1. Flinders/NTCS GEMP

The Flinders/NTCS students follow the 4-year Flinders University GEMP curriculum with the same assessment as Flinders students in Adelaide. In Year 3 the Flinders/NTCS students undertake PBL sessions at the beginning and end of the week based at the NTCS and 6-8 week rotations occur at RDH in General Medicine, General Surgery, Anaesthetics, Paediatrics, Obstetrics and Gynaecology and Psychiatry, plus a rural general practice placement.

In Year 4 all Flinders GEMP students undertake a combination of 6-week selectives and electives, some of which can be based in the NT (not compulsory). The Year 4 program consists of:

a. Two Acute Care Selectives – in the NT these can be at RDH or ASH;
b. One Ambulatory Care Selective – in the NT this can be in an AMS or Remote General Practice Central Australia or Top End or at RDH or ASH
c. One Rural Health Selective – similar options as ‘a’ and ‘b’
d. One Undesignated Selective
e. Two electives of students own choice

These Year 4 selectives/electives in the NT are open to all Flinders GEMP students – both NTCS and non-NTCS.

2. NTRCS

Some of the 16 Flinders/NTCS students undertake Year 3 and Year 4 of their course as NTRCS students and do six months of at RDH and the other six months in rural sites funded through the NT RCS program – Katherine, Alice Springs and in 2008 Nhulunbuy. These community-based education placements at the rural sites are across a variety of locations for varying periods of time and are individually tailored to each student by the RCS Academic Coordinator located at each site.

3. JCU/NTCS Undergraduate Medical Program

The JCU Medical Course is a 6 year undergraduate course. Years 1-4 are based in Townsville. For the clinical years (Years 5 and 6) students can choose from 4 different locations – 3 in Queensland and the NTCS. The NTCS program for both these years is based at the NTCS and RDH.
In Year 5 the JCU Students at NTCS undertake a hybrid curriculum with Flinders/NTCS GEMP students. It includes teaching at the NTCS and 5 RDH rotations in General Medicine, General Surgery and Anaesthetics, Paediatrics, Psychiatry, Women’s Health. In Year 6, the JCU students undertake 3 specialty terms at RDH in Critical and Crisis Care, Adult health (including surgical and medical units such as ophthalmology and renal medicine) and Aged Care/Rehabilitation/Palliative Care.

4. Rural Undergraduate Support and Coordination (RUSC) Placements

Medical schools receive DoHA funding to implement the RUSC parameters. RUSC parameter 5 states that:

“All Australian medical students must undertake at least four weeks of structured residential rural placement during the completion of their degree” .... Placements should only be provided in RRMA 3-7 areas. RUSC Program placements may also be conducted in the Northern Territory, through the designated provider of RUSC Program services in this area”.

NTGPE is the designated provider of RUSC programs in the NT. All placements – selectives and electives - are coordinated by NTGPE. Placement length varies but the majority of placements are for 4-8 weeks. They occur in rural and remote general practice settings in the Top End and in Central Australia, AMSs and the 3 rural hospitals Katherine, Gove and Tennant Creek.

5. JFSS and Other Medical Rural Bonded Students Placements

ACRRM is the national manager of John Flynn Scholarship Program (JFSS) and subcontracts NTGPE to coordinate placements in the NT for these students. JFSS students undertake 2 week placements in the same rural community for 4 consecutive years of their medical training. The aims of these programs are to introduce students to rural and remote practice over a period of time so that they can work closely with a rural doctor mentor and the placement community.

6. Student Placement Details for 2007

81 RUSC and JFSS students were placed in the NT from January 1 to 30 July 2007. Of those, 23 students were placed at remote DHCS locations. The remainder were placed at regional hospitals and AMSs. The following tables utilize information from the NTGPE and provide a snapshot of those placements. Further details of placements are provided in the matrix which is also provided as an appendix.
Table A5-1 – Feeder Universities of Placements for Jan-July 2007

Table A5-2 – Placement Types Jan-July 2007
Rural Undergraduate Support and Coordination Program (RUSC) Parameters

Parameter 1

Establish and/or maintain demonstrably active measures to increase the number of rural origin students selected for entry into the Medical degree. These measures may include the development of specific rural student recruitment programs as well as carrying out work within the University to review and revise medical student selection processes. At least 25 percent of the annual medical school enrolment (excluding full fee-paying students) should be comprised of students who are of rural origin, defined as Rural, Remote and Metropolitan Areas (RRMA) 3-7, with at least five years rural residence, consecutive or cumulative, from commencement of primary school. Medical school staff with a background in rural medicine and understanding of rural issues must contribute to the selection process.

Parameter 2

Provide a rurally focussed curriculum that promotes and integrates rural practice and is designed by people who understand rural health, with delivery commencing early in the course. The curriculum must highlight the rural context by focusing on learning needs about rural health, the rural social environment, cultural and gender issues in rural medicine, clinical skills and decision making appropriate to rural practice.

Parameter 3

Establish effective partnerships between organisational units involved in the delivery of Australian Government funded rural medical education programs. The University must utilise RUSC Program resources to establish and/or maintain a central point of contact at the primary metropolitan campus to assist in the integration of rural medical education programs with standard ongoing medical educational programs.

Parameter 4

Coordinate the provision of educational development and support for rural medical educators, in partnership with Rural Clinical Schools, University Departments of Rural Health and regional vocational medical education training providers. The University may utilise RUSC Program resources to facilitate the development of innovative training and support mechanisms, such as the development of web-based teaching tools.
Parameter 5

Provide safe, culturally appropriate, high quality experience of rural medicine for all Australian medical students during the completion of their degree, in accordance with the curriculum requirements of the course. All Australian medical students must undertake at least four weeks of structured residential rural placement during the completion of their degree. The University is encouraged to provide placements in the early years of the course. The University may also provide additional rural residential placements (elective or core) in the later years of the course, subject to curriculum requirements and the capacity of placement areas to support the delivery of high quality training. Placements should only be provided in RRMA 3-7 areas. RUSC Program placements may also be conducted in the Northern Territory, through the designated provider of RUSC Program services in this area. The University must take reasonable action to ensure that medical students undertaking training at rural locations do not suffer undue financial hardship as a direct result of the requirement to undertake particular placements and must also ensure that students are adequately and safely accommodated while undertaking rural training. In exceptional circumstances, the Dean of the Medical Faculty may exempt individual students from undertaking rural placements on the basis of financial hardship or demonstrated health concerns.

Parameter 6

Develop and/or maintain active, appropriate measures to increase the selection of Indigenous Australian students into the Medical degree, which may include the introduction of selection targets. Indigenous recruitment activities may focus on both rural and urban origin students. RUSC Program resources should be utilised to support Indigenous applicants during selection processes as well as to provide support mechanisms to assist Indigenous medical students to complete their training. The University is also encouraged to consider the Committee of Deans of Australian Medical Schools (CDAMS) Indigenous Health Curriculum Framework in ensuring that its medical curriculum addresses local and national needs to enhance the understanding of, and commitment to improving the health of Indigenous Australians. This should include ensuring that all medical students and relevant staff undertake appropriate cultural awareness and safety training in Indigenous health issues. RUSC Program funding may be allocated towards the appointment of Indigenous academic staff to assist in achieving these goals.

Parameter 7

Support and maintain an inclusive, multidisciplinary-focused rural health club for students, as a means of encouraging interest in careers in rural health. The activities of the rural health club should be carried out in accordance with the most current edition of the Framework for Funding Rural Health Clubs and the principles and practices of the National Rural Health Network.
(NRHN). The University is responsible for the management of Australian Government funds provided to the rural health club, and must ensure that funds are expended in support of the broad outcomes of the RUSC Program as detailed above.