Self-discharge against medical advice from Northern Territory Hospitals

Prevalence rates, experiences and suggestions, economic implications and recommended strategies for improvement

A Report Prepared for the
Department of Health and Community Services
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Executive Summary

Introduction

The research detailed in this report was commissioned by the Northern Territory Department of Health and Community Services (DHCS) to assist the Department’s response to managing the risks and challenges of patients self-discharging against medical advice from Territory hospitals.

The six key project objectives identified following discussions with the Department of Health and Community Services were to:

1. Explore reasons underlying patient self-discharge.
2. Determine whether this behaviour is associated with more general patient non-compliance and/or resource constraints that prevent appropriate management of these at-risk patients.
3. Explore the fiscal, clinical, ethical and duty-of-care consequences of premature Self-discharge.
4. Identify better ways to prevent and or manage inpatients that prematurely self-discharge.
5. Assess the costs and benefits of different options for better managing this group of patients.
6. Interview patients who had left hospital prematurely.

Data

Statistical and economic data and analysis for the period 1999 to 2004 were provided by the Health Gains Planning Branch of the Department of Health and Community Services based on reports from all Northern Territory hospitals – Royal Darwin Hospital, Gove Hospital, Katherine Hospital, Tennant Creek Hospital and Alice Springs Hospital. The quantitative data was supplemented with findings from interviews and focus groups with staff in hospitals and Aboriginal Health services and by individual key Indigenous informants conducted in June 2005 and from April to June 2006.

Over 40 hospital staff participated directly, and many more indirectly, by contributing their experiences and innovative ways of dealing with self-discharge. Many years of experience informed the opinions of these staff, which were evident in the quality and succinctness of their comments. Staff were generous with their time and were also very keen to assist in reducing the rate of self-discharge. More importantly, they are already trying to address some of the reasons why it occurs when these are within their control. From April to June 2006 a second round of interviews and a focus group were conducted with key informants from Aboriginal controlled health organisations. The ethics and logistics of locating and interviewing patients who had left hospital prematurely proved difficult and would require concentrated research using interpreters. However,
Indigenous participants provided information about their own hospital experiences and that of relatives and these perspectives corroborated those of hospital staff.

The analysis of data in this report was informed by a review of relevant literature that highlighted the concern both within Australia and internationally with the issue of self-discharge. It also became clear that there is very little directly relevant empirical data that can be drawn on in the local context since findings elsewhere do not apply to the unique Northern Territory patient data. Indigenous people are over-represented in the acute care system, often presenting with multiple co-morbidities and higher acuity requiring complex treatments. Comprising approximately 30% of the Northern Territory’s population Indigenous people utilise around 80% of the regional hospital bed days. In the Northern Territory Indigenous patients also account for the majority of separations against medical advice and, as reported here, the total number of self-discharge separations in the Indigenous population was more than eleven times the number of non-Indigenous patients. Given these findings the Report is focused primarily on Indigenous patients

Main statistical findings

From 1999 to 2004 there were over 9,000 separations reported as self-discharge episodes from the five Northern Territory hospitals.

- The rate of self-discharge is highest for Indigenous males followed by Indigenous females and non-Indigenous males.
- The peak ages for self-discharge were from 15-44 years and most commonly occurred for Indigenous and non-Indigenous patients from medical units (37%) and surgical units (21%). In addition Indigenous people were more likely to self-discharge from paediatric, renal, obstetric and boarder units while non-Indigenous patients tended to self-discharge from surgery, orthopaedic, infectious, emergency and psychiatric units.
- During the reporting period the rate and frequency of self-discharge varied between the five Territory hospitals, ranging from 4.1% of all separations from Tennant Creek Hospital to 1.6% of all separations from Royal Darwin Hospital (RDH).
- The average frequency of self-discharge per patient was 1.7. The trend for self-discharge increased slightly from 1999 at 2.4% to 2004 at 2.6%.
- Indigenous patients had more episodes of self-discharge than non Indigenous patients with 1478 (32%) self-discharging more than once and a further 698 self-discharging between 3 and 9 times. One Indigenous person self-discharged a total of 29 times in the reporting period.
- In keeping with the national average the length of hospital stay (LOS) of patients who discharged against medical advice tended to be after 5 days. Indigenous patients who self-discharged stayed in hospital longer than non-Indigenous patients.
• While the self-discharge separation rate overall in Territory public hospitals was 2.5% during the study period, the readmission rate was 12.6%. However, the readmission rate was much higher in self-discharged at 25.8% than in non self-discharged patients at 12.3%. Non-Indigenous patients had a higher readmission rate (15.8%) than Indigenous patients (10.7%) but of those patients who self-discharged the readmission rate was higher for Indigenous patients (26.2%) than for non-Indigenous patients (21.3%).

Costs of self-discharge
• These self-discharge episodes resulted in an estimated $30 million being spent on incomplete medical treatment. This amount accounts for 4% of the total acute care costs in Northern Territory public hospitals over the five year reporting period. The research reported here confirms that patients who self-discharge, or ‘walk off’, wards prior to being discharged by a physician, in particular after surgery, are more likely to be re-admitted with severe complications that may have been avoidable.

• With a readmission rate of 25% of self-discharge episodes, the extra cost of follow-up readmission is estimated at $8.6 million. After adjusting for the 12% expected non-self-discharge readmission, the adjusted cost for follow-up readmission is estimated at $3.8 million.

• The estimated net saving for preventing the majority of patients discharging against medical advice was expected to be $4.7 million over five years. This sum does not include indirect and substantial costs. For example, this crude cost does not include the increased use of Aboriginal Health Workers (AHWs), Aboriginal Liaison Officers (ALOs) and interpreters who are not available to other patients. Nor does it include bed space not available to other patients such as those scheduled for elective surgery, acuity costs for people who may need higher level of care on the second or subsequent admissions and any additional transport cost incurred by the follow-up readmission.

Reasons for self-discharge
The study has shown multiple reasons for patients choosing to self-discharge against medical advice. These range from personal reasons beyond the control of hospital staff which may need to be better understood and respected by staff, but also issues that are amenable to action by the DHCS. These include ongoing enhancement of staff skills and cultural awareness particularly in the light of high staff turnover, systems failure, and for Indigenous patients, an absence of cultural security. Discussions at hospitals reinforced both the risks created by a lack of cultural security and potential benefits from its introduction. In these discussions the physical design of hospitals, the routines and treatment regimes and the behaviour of some staff produced cultural clashes that staff believed had an impact on patients’ self-discharging.
Key Issues and Recommendations

The following are the main issues arising from the research and suggestions put forward by participants, and the recommendations from the researchers to reduce episodes of self-discharge and in particular of Indigenous patients.

Issue
Misunderstanding and miscommunication due to cultural differences.

Recommendations
1. Adequately resource the Cultural Security Policy and operationalise and implement strategies and principles from this policy through these recommendations;
2. Improve the level of support in hospitals for Indigenous people, through more effective use of Aboriginal Health Workers and Hospital Liaison Officers;
3. Ensure findings from this report are made available to the Northern Territory Aboriginal Health Forum for potential collaborative action around ‘health literacy.’

Issue
For many patients who self-discharge, the need for hospitalisation can be reduced with an improvement in the coordination of primary health care services and sharing of patient information across the government and non-government community health sectors.

Recommendations
1. Review current health services design and delivery issues to improve continuity of care;
2. Develop strategies and frameworks that allow for continuity of care across hospital and community;
3. Consider a case management approach to ensure informed advocacy and links between and across remote, community health and acute care services; and
4. Ensure findings from this report are made available to the Northern Territory Aboriginal Health Forum for potential collaborative action around continuity of care for Indigenous patients from primary to secondary and tertiary health care.

Issue
Young people, in particular young pregnant women, are at times influenced by other community and family members to leave the hospital system earlier than required.

Recommendations
1. The hospitals, in partnership with local community health providers and community leaders, develop strategies that better support pregnant women and families with small children both in hospital and awaiting treatment; and
2. Allow for young people (women and men) to be accompanied by an escort or adult if they are to be housed in hostels for several days or weeks prior to admission.

**Issue**

Patient support persons or patient escorts have been highlighted as both a sound strategy in preventing self-discharge as well as a problem, as inappropriate escort selection can influence the patients to leave the hospital or not attend for admission.

**Recommendations**

1. Encourage communities to identify a number of people within the community and establish a ‘pool’ of escorts who can be called on to support patients (this could provide training opportunities and leadership for ALOs or Aboriginal Health Workers);
2. Develop, with the community, training in hospital systems and protocols for the patient escorts; and
3. Ensure patient and patient escorts are linked appropriately into the hospital, including through an identified point of contact other than the admissions office.

**Issue**

It is at times difficult to obtain informed consent or ensure quality of care, when English is a second or third language, literacy skills are poor and understanding illness and acuity of disease are minimal or non-existent. The interpreter service and the Aboriginal Liaison services are two resources used by some hospitals to ensure informed consent and patient safety. Due to the high demands on both these services patient and hospital needs regarding quality of care and safety may get overlooked.

**Recommendations**

1. Increase the numbers and range of languages covered by interpreters and their availability to patients and staff;
2. Encourage and support ALOs and AHWs to obtain interpreter accreditations; and
3. Examine the commonality of languages at a regional level, with the view to the full-time employment of interpreters that speak the most widely understandable language in the region in each hospital.

**Issue**

Both the literature review and the qualitative data confirmed confusion around the different terms used to describe the behaviour that stimulated this research. Phrases such as ‘taking your own leave’, ‘absconding’, leaving hospital or leaving medical care ‘against medical advice’, and ‘self-discharging’ are all in common use. While the DHCS has a policy on self-discharge against medical advice, it was also obvious in the interviews that many ward staff were not aware of any written procedures or guidelines regarding the reporting of self-discharge. While hospitals’ staff were aware of the over-arching policy, the time lapse and what is recorded when a patient is assumed to have self-discharged against medical advice varied across hospitals. The referred to ‘rule of thumb’ approach
was based on meal times (if meals were left untouched), patient has not returned to ward within six or eight hours, patient hadn’t returned before evening meal and bed was still empty when night shift commenced. The variety of definitions and criteria to apply when identifying a patient that chooses to leave the hospital system make comparisons and even practical action difficult.

Recommendations
1. The health system to develop and maintain consistent terminology and approaches for better identification and recording of self-discharge;
2. Develop and maintain a consistent definition of self-discharge and its recording in medical records against a set of criteria;
3. Establish procedures for appropriate recording around discharge and coding for improved articulation across the Northern Territory; and
4. Consider recording self-discharge at two levels: one where formal consents were signed and the patient fully aware of their action, i.e. Discharge Against Medical Advice (DAMA) separation type 1; and in the case of walking out without notifying staff Discharge Against Medical Advice (DAMA) separation type 2.

Issue
The eligibility criteria for Patient Assisted Travel (PATS) overlook the capacity of patients to pay for transport to and from hospital. It was reported that patients living less than 200 kilometres from regional hospitals were not eligible for any assisted travel. They rely on the community transport or family members to take them to and from hospital. Patients from the more rural or remote communities make the decision to leave hospital based on the opportunity of transport back home—at times this is at substantial personal health cost.

Recommendation
1. Undertake a research-based review of PATS to address anomalies, costs and benefits of the current system.

Issue
It is likely that two main population groups contribute disproportionately to the high rates of self-discharge of Indigenous patients: young men and women with alcohol and substance abuse often admitted with injury due to violence, pregnant women and those (usually women) accompanying young children. It is therefore justified for additional attention to be paid to these groups by Aboriginal Liaison Officers and other staff. Health professionals need additional support and strategies to manage these client groups. For example, those at risk of withdrawal from alcohol and substance abuse require additional monitoring and possible treatment. Improving continuity of care, case management and community and neonatal nursery support for pregnant women and women those with young children is likely to reduce rates of self-discharge of women and children discharged by carers against medical advice.
Recommendations

1. Undertake a review of current staff support and service models for pregnant women and those with small children with a view to piloting models based on continuity of care and strengthening comprehensive primary health care in large communities.

2. Patients at risk of withdrawal from alcohol and substance abuse should receive additional medical monitoring and treatment where possible.

Issue
Staff reported that patients leave for a variety of reasons unrelated to health and treatment. This appears to be due to loneliness, feeling isolated or being bored. Innovative strategies to make the patient stay more pleasant have proven effective in some regions, such as arranging for telephone contact back home to their community.

Recommendation
1. For long-term patients, hospitals develop and implement programs that facilitate a friendly and responsive environment, based on similar strategies currently being used by the Rehabilitation Service at RDH.

Issue
There is a great need for more Indigenous staff in all positions across Northern Territory hospitals. In some areas, due to staffing constraints, it appears ALO's are being used as pseudo social workers, interpreters, patient advocates and to provide transport, as well as asked to provide personal tasks such as patient banking.

Recommendation
1. Develop and implement sound employment strategies to increase the numbers of Indigenous staff across all positions in the Northern Territory hospitals, in particular, Aboriginal Health Workers and Indigenous Nurses.

Issue
The practice of self-discharge incurs substantial costs for the Northern Territory health system, with an estimated over $38 million spent on ineffective medical treatment. It was not possible in this report to complete a full economic analysis of the costs to the system and appraisals on the benefits of implementing preventative strategies. This was, in part, because that analysis would require considerable input of Indigenous patients who had self-discharged against medical advice. The researchers believe that it would be beneficial for the Department to conduct a comprehensive cost benefit analysis with patient input. In addition, the data and definitions on which such an analysis would be based have only been clarified as a result of this work reported here.

Recommendations
1. Under the economic criteria of equity, efficiency and effectiveness, the Acute Care Branch and the Health Gains Planning Unit further assess the costs and benefits of
the implementation of strategies to reduce self-discharge against medical advice; and
2. That this process enables the inclusion of input and of strategies from the community sector.
Background

The Department of Health and Community Services (DHCS) of the Northern Territory Government commissioned this research to identify the magnitude of the problem of self-discharge against medical advice from Northern Territory hospitals and to assist in the development of strategies and options to better manage this behaviour. These patients not only risk their own health but also challenge hospital administrators and health professionals’ duty of care and ethical practice regimes. Based on research evidence the DHCS expressed concerns about these risks and the challenges they pose for staff. The Department recognised that there was room for improvement. In line with the Partnership Agreement between the Northern Territory Government and Charles Darwin University, the University was requested to undertake this research project on behalf of the DHCS. Additional in kind support was provided by the Cooperative Research Centre for Indigenous Health (CRCAH).

In most instances people admitted to hospitals are free to leave when they choose although usually discharge is only recommended following a doctor’s advice. For a range of reasons, people may choose to discharge themselves from hospital care. This may be done formally with patients signing a disclaimer stating they are leaving against the advice of a doctor and do so at their own risk*. At other times patients leave informally, sign no disclaimer and often do not inform staff of their decision. Northern Territory statistical data does not disaggregate data for these separate ways of discharge. Across the five public hospitals in the Northern Territory the terminology and definition for patients who discharged against medical advice varies. There are grey areas in definitions and application that are also evident in relevant research reports consulted for the Literature Review of this Report. Terms used in the literature include ‘taking own leave’, ‘abscording’, ‘leaving hospital’, ‘leaving medical care against medical advice’, ‘Discharge Against Medical Advice’ (DAMA), ‘Absent Without Leave (AWOL) and ‘self-discharge.’ Locally in the Northern Territory, staff and Indigenous patients often use the term ‘walking off.’ Other terms are also used by staff and ‘Taking Own Leave’ (‘TOL’) is commonly used at Alice Springs and Tennant Creek Hospitals.

The term we have ultimately come to use is self-discharge. This relates to those patients who self-discharged against medical advice and prior to formal discharge paperwork completion. In some Territory hospitals staff reported that patients leave after being told they can go but they do not wait for official paperwork and often leave without medication. These separations are not coded as self-discharge and case records note them as leaving without appropriate discharge.

* Royal Darwin Hospital requires patients discharging against medical advice to sign a disclaimer. This is stated in the hospital’s Patient Information Guide at http://www.nt.gov.au/health/hospital_svs/tesn/royaldarwinhospital/patients/infoguide.htm
Methodology

Early exploration of the literature and preliminary Departmental statistical data informed the methods pursued in subsequent stages. Ethics approval was sought and given in two stages to accommodate the development of the approaches used in our method, as these were informed and refined as the study progressed. The Joint Institutional Ethics Committee of the Royal Darwin Hospital and Menzies School of Health Research granted ethics approval for both stages of the research project (at Attachment 1), and further approval was sought from Aboriginal Medical Services Alliance NT (AMSANT) to interview key Indigenous informants and staff in Aboriginal Medical Services.

The study design was developed following informal discussions with Indigenous health leaders in the Northern Territory, preliminary findings of the magnitude of the problem based on available local statistical data and input from a small steering committee comprising experts from the health system. The Departmental steering committee provided feedback and assisted with issues relating to access within the health system across the Northern Territory.

The scope of the research project was inclusive of all self-discharging patients; Indigenous and non-Indigenous. However, the early selective literature review and preliminary statistical analysis showed that in the Northern Territory self-discharge of Indigenous patients was a major concern and that the rate of self-discharge for Indigenous patients was eleven times that of non-Indigenous patients. This early assessment was confirmed in the interviews and focus groups conducted with a wide range of hospital and Aboriginal Medical Service staff in all regions of the Northern Territory. The phenomenon of Indigenous people comprising approximately 30% of the general population but around 80% of the regional hospital populations does support further targeted interrogation based on perceived Indigenous health inequities. Due to the use of non-standardised terminology and definitions there are problems in being able to reliably capture and analyse the quantitative data. Qualitative data reported here also confirms that health professionals and others are unclear of procedures and complete forms differently. Therefore, the data reported here needs to be treated with caution.

The approaches to this project involved a number of steps:

- **Selective literature review** - using key phases such as: ‘compliance’/’non-compliance’; ‘Indigenous’; ‘Aboriginal and Torres Strait Islander’; ‘trust utilisation’; ‘absconding patients’; ‘early discharge patients’; ‘discharge against medical advice’; ‘taking own leave’; and ‘absconding’. Various search engines were used, such as Pub Med, Google, state/government health sites, Aboriginal Community Controlled Health web sites, Ovid, Entrez pub med, Ingenta connect, Medline via paperchase. Numerous grey reports were also accessed from across the health system. For example, the Royal Commission into Aboriginal and Islander Deaths in Custody (RCAIDIC) (Commonwealth of Australia 1991) was a particularly informative document identifying problems in health care delivery for certain categories of Indigenous self-discharging patients.
• **Examination of de-identified departmental data** - of those who have been coded by the hospital as ‘self-discharged against medical advice.’ Ethics Approval for this first phase was gained prior to interrogation of the data. Following examination of the data available, requests were made to ascertain Statistical Reports from the Health Gains Planning Branch. A range of data and categories were sought, such as Indigenous and non-Indigenous, gender, age group; hospital; specialty and/or diagnostic group. Any additional information available on the reasons for early discharge was also sought.

• **Economic analysis** - a full analysis was not possible given its complexity and problems with data. However, it is possible to state that on a crude economic analysis the costs to the system are considerable;

• **Stakeholder interviews** – this required further ethics approval and negotiation with the Aboriginal Medical Services Alliance NT (AMSANT) which was sought prior to interviews across regional sites. Voluntary participation in focus group sessions with key health service stakeholders (Administrators, Doctors, Nurses, Aboriginal Liaison Officers, Aboriginal Health Workers, Nursing Directors, Social Work Departments and Department Policy Officers) provided an insight into their work experience and perceptions. These sessions were semi-structured and allowed staff to comment freely. Staff were encouraged to comment on suggestions concerning self-discharge for example its prevalence, reasons why this occurred, policy, responsibility and strategies they believed would reduce the occurrences of self-discharge events. Further interviews were conducted either face to face or by phone with key informants who were encouraged to discuss either their own hospitalisation or that of people known to them.

### Statistical Data Collection

Northern Territory Hospital data from 1999/00 to 2003/2004 from the Northern Territory Department of Health and Community Services was used in this report. The following variables were determined to select and analyse data for the report:

- 5 – year age group
- Indigenous/non-Indigenous
- Sex
- Hospital name and discharge unit
- Admission Type
- Discharge status
- Major Disease Category and Diagnosis Related Groups (DRG)
- Discharge financial year
- Number of separation; and
- Number of unique unidentified patient ID.†

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† Patients’ names, addresses or any other identifiable information was withheld.

*Self-discharge Against Medical Advice from Northern Territory Hospitals*
Some studies have suggested that patients may be more likely to self-discharge on certain days of the week or times of the year. For example, a Canadian study (Anis, Sun et al. 2002), found that intravenous drug users who were HIV-positive were more likely to self-discharge on what was referred to as ‘welfare Wednesday’ (payment days), while studies in the USA and Britain have found more episodes during the warmer summer months. However, these factors did not play a significant part in the Northern Territory where welfare payments from Centrelink are able to be obtained on any day of the week and the climate is either tropical or relatively mild even in winter. Tennant Creek and Gove hospitals did show some variation. Although the causes were not able to be determined there may be social or cultural factors at play such as ceremonies in Indigenous communities or sporting fixtures which patients want to attend.

Additional questions were posed to further explore and refine conclusions that could be drawn from the data. We explored the number and proportion of Indigenous people who self-discharged from each hospital over the reporting period and identified Indigenous/non-Indigenous in all data. We also investigated whether self-discharge occurs for people only living out of town in rural or remote regions, or for people only living in town, or if it involves a combination of people and if so, in what proportion. Length of Stay (LOS) of people prior to self-discharge, the period between self-discharge and any return to hospital and clarification on emergency and pregnancy admission were also sought.

The following Diagnosis Related Groups (DRGs) were analysed: nervous system and sense organs; ear, nose, mouth and throat; respiratory; circulatory; digestive; musculoskeletal and skin; endocrine/nutrition/metabolic disorder; genitourinary; pregnancy and childbirth and puerperium; perinatal period; blood and blood-forming organs; neoplasm; infectious; and mental. However, it was found that larger, more general groupings of data, such as ‘medical’, were more useful in the small Northern Territory population and we have used more general groupings in the body of the report. We recognise that if the population base was larger, smaller subgroups may be usefully extracted. Additional information was also sought for costing of admission, bed stay, use of other resources such as Aboriginal Liaison Officers (ALOs) and for following up patients who had self-discharged. While not comprehensive, crude costs have been established. A full and detailed economic assessment of self-discharge, assuming a Territory-wide rate of 2.5%, that includes the full range of direct and indirect cost including expenditure by patients, cannot be established at this time but could be done in a subsequent project.
Selective Literature Review

Introduction

The literature was reviewed to determine the extent of the problem and any relevance to issues in the Northern Territory. Published and unpublished works were sourced against the key phrases noted in the Methodology section. While hundreds of research publications mention discharge against medical advice as a means of separation there are fewer research publications focusing specifically on the phenomenon and these encountered similar problems in obtaining both quantitative and qualitative data as the researchers have in this study. Of these published and unpublished works, there was very little research conducted in Australia or concerned with Indigenous patients who self-discharged against medical advice. This confirmed the value and importance of the work requested by DHCS. Given the unique population profile of hospital admission data in the Northern Territory, with a disproportionate number of Indigenous patients often from remote communities, much of the literature was not directly relevant to this study and has been selectively documented rather than attempting a meaningless comprehensive review or meta analysis.

The search strategies employed for the literature review revealed that while there was a substantial body of international research in a variety of settings self-discharge against medical advice is most often reported and researched in psychiatric units and usually referred to as ‘absconding’ (Bowers, Jarrett et al. 1998; Anis, Sun et al. 2002). A literature review conducted by Bowers et al (Bowers, Jarrett et al. 1998) found that most studies use only official statistics supported by de-identified case notes and that definitions to describe episodes of self-discharge vary, or have not been defined at all in some studies making comparisons difficult.

Profiling patients who self-discharge

The research setting and the general patient profile of those admitted to a particular hospital influences the identified characteristics of patients likely to self-discharge against medical advice. However, there is general consensus in the reported studies that young, male, single patients, those with alcohol or substance abuse disorders, schizophrenia sufferers and those from disadvantaged groups within the wider society are more likely to self-discharge. People with a prior history of self-discharge were also more likely to do so again (Smith and Telles 1991; Jeremiah, O’Sullivan et al. 1995; Bowers, Jarrett et al. 1998; Weingart, Davis et al. 1998; Dickens and Campbell 2001; Anis, Sun et al. 2002; Hwang, Li et al. 2003).

Saitz et al (2000) note the association between alcoholism and increased use of health resources leading to an overrepresentation of these patients in hospitals and in self-discharge separations. Other studies suggest that staff in a psychiatric setting might be more likely to report those self-discharged patients they are concerned about, and who
are at risk, resulting in a bias in the data (Bowers, Jarrett et al. 2000). In their study of patients on acute psychiatric wards in the East End of London Bowers Jarrett et al. (2000) also found that there was a link between patients who exhibited difficult, non-compliant or violent behaviour and those who discharged against medical advice. Australian researchers have also suggested that young males with schizophrenia are more likely to be admitted to care resulting in an over-representation of these people in the data and that patients who are legally detained are more likely to be reported as self-discharging when they go missing (Meehan, Morrison et al. 1999). In the United States a variety of factors influence the rate of self-discharge. The demographics and socio economic status of a region, if the hospital is a private or state institution, if patients are admitted involuntarily or via the police, courts or prison, or if patients lack a personal physician and health insurance all appear to play a part in the likelihood of patients self-discharging (Smith and Telles 1991; Weingart, Davis et al. 1998; Meehan, Morrison et al. 1999; Dickens and Campbell 2001).

Some researchers have drawn attention to the discharge against medical advice of children by parents, guardians or caregivers in studies of hospital admissions, outcomes and separations including in Australia (Williams, Gracey et al. 1997; Russell, White et al. 2004). In their study of the hospitalisation of Indigenous children for malnutrition in Central Australia Russell, White et al (2004) found that 16% of the children (median age 15.1 months) admitted were discharged by their carers against medical advice and there was a high rate of readmission for all the children. A Saudi Arabian report discussed the conflicts between staff and parents over their perceived duty of care towards children in a burns unit (Fadaak, Fawzy et al. 1996). The researchers reported that in several studies children aged between 0-14 years were often the main victims admitted with burns and were also more likely to be discharged against medical advice by attendant mothers prematurely. The reasons given were that mothers, as well as caring for the sick child in hospital, had other responsibilities at home. The Saudi researchers, taking the authoritarian point of view of professional staff, go on to state that family members should be prevented from staying in the burns unit to care for a sick child since their presence disrupts ward discipline and complicates matters for staff with communication difficulties and misunderstandings contributing to parents seeking early discharge for their child.

**Why patients choose to self-discharge.**

Understanding the reasons patients choose to leave hospital is under-researched and with a few exceptions, studies have not addressed ways to determine how to predict such behaviour nor reported on the economic costs (Steinglass, Grantham et al. 1980; Bowers, Jarrett et al. 1998; Saitz 2002). Few studies sought the views of patients about their reasons for self discharge. Those that have describe factors that are largely out of the control of hospital staff such as: worries about home and property, needing to obtain alcohol, financial problems and legal issues such as court appearances, patients ‘feeling better’,
family and relationship problems and the stigma of being in a psychiatric hospital. However, other factors are within the purview of staff and management and may be able to be addressed for example: doctor/patient relationships and communication, issues to do with medication, loneliness and boredom in hospital, or disliking hospital food (Bowers, Jarrett et al. 1998; Bowers, Jarrett et al. 1999; Meehan, Morrison et al. 1999; Hwang, Li et al. 2003; Green, Watts et al. 2004).

The extent of the problem

Measuring the extent of self-discharge on a national basis is contentious and the estimated number of separations or rate of self-discharge separation differs significantly across various studies. North American investigators have found that patients discharging against medical advice account for between 0.8% - 2.2% of separations at acute care hospitals in the USA (Smith and Telles 1991; Jeremiah, O'Sullivan et al. 1995; Saitz, Ghali et al. 2000).

Weingart et al (1998) cite a different and earlier set of statistics which found rates of self-discharge of 0.4% to 4.4% and suggest that based on these figures there could be between 123,000 and 1.36 million such discharges in the United States annually. In Canada it is estimated that there are more than 20,000 cases of self-discharge occurring every year (Hwang, Li et al. 2003), with up to 35% of psychiatric patients self-discharging (Dalrymple and Fata 1993). Rates were inversely correlated with location and socioeconomic status and researchers suggest that in some disadvantaged urban areas the rates may be higher than that reported in the literature (Smith and Telles 1991; Hwang, Li et al. 2003). Researchers have also cautioned that individuals who self-discharge frequently may also affect the reported rate of self-discharge (Bowers, Jarrett et al. 1998; Meehan, Morrison et al. 1999).

Readmission following an episode of self-discharge

International studies show that patients who self-discharge are more likely to be readmitted within a short period, often within 14 to 30 days (Aliyu 2002; Hwang, Li et al. 2003). Research conducted at the general medical service of Beth Israel Hospital in Boston compared the demographic features and the inpatient history of 472 patients discharged against medical advice between 1984 and 1995 (Weingart, Davis et al. 1998). This research found that 54% of patients who left in this fashion were readmitted with 43 patients (9.1%) readmitted within one day. Patients with a history of self-discharge accounted for 15.4% of the 472 patients discharged against medical advice. A Canadian study at a Toronto teaching hospital in a low-income neighbourhood matched 97 consecutive patients who self-discharged against medical advice with control patients who discharged procedurally. The study found that self-discharged patients were more likely
to be readmitted—and readmitted within the first fifteen days after discharge. Readmission was not always to the same hospital (Hwang, Li et al. 2003).

**Australian research and publications**

There have been few specific studies or reports of discharge against medical advice undertaken in Australia. Researchers in Victoria (O’Hara, Hart et al. 1996; O’Hara, Hart et al. 1996) conducted a pilot study over a two and a half year period linking data held by the Registrar of Births, Deaths and Marriages with the Patient Master Index at St Vincent’s Hospital, Melbourne and the Victorian Inpatient Minimum Database containing information on all inpatient episodes. St Vincent’s is a large general teaching hospital. During the study period between July 1991 and December 1993 there were 74,004 separations, which involved 28,405 people. Of these 1.5% (1,146) or one in 65 separations was coded self-discharge against medical advice. The 1,146 separations involved 1,066 patients; 71 were involved in more than one separation coded self-discharge and the majority were male (58.5%). The principal diagnoses of those patients self-discharging were injuries and poisoning (20.9%), circulatory disorders (17.8%) and mental disorders (13.9%). Those self-discharging were mainly elderly patients over 60 years (48%) and most over 80 years. In keeping with other studies, self-discharge occurred with the greatest frequency in those aged 20-39 years and more unusually in those over 80 years. The majority of those self-discharging had no private health insurance (83%). There was a total of 831 deaths within 28 days of discharge and of these, 33 (10.4%) deaths occurred after discharge against medical advice. Most of these patients had been hospitalised for carcinoma.

In Queensland, Meehan Morrison et al (1999) reported on a study conducted in a purpose built acute psychiatric unit of a large public general hospital. The 6 month study was designed to consider ‘abscording’ behaviour from a patient’s perspective and included all patients reported missing described as Absent Without Leave (AWOL) from the hospital at midnight. A total of 390 patients were admitted and of these 51 (13.1%) were responsible for 77 consecutive self-discharge incidents. Of these patients 31.4% self-discharged more than once. The majority (58.4%) were male and under 40 years of age. Almost one half (49.4%) of AWOL incidents had occurred within 7 days of admission. In-depth interviews were conducted with a subsample of 14 patients who were readmitted within 48 hours of being reported AWOL. The interviews raised key issues that lead to patients self-discharging including: boredom, lack of interesting activities, disturbed ward environment, perceptions of the need for hospitalisation, concerns about issues at home, and the perceived rewards from absconding.

Brady (1992) in her study of the health of Indigenous youth notes that Indigenous people and particularly young men are more likely to self-discharge from hospitals than non-Indigenous people. She cites South Australian research showing that in 1986, 3.3% of male Indigenous patients and 2.4% of Indigenous female patients discharged themselves from hospital. The highest rate of admission was for mental disorders a category that included drug and alcohol inflicted psychosis. Brady also goes on to report that in
Western Australia staff at Kalgoorlie hospital reported that young Indigenous men from remote desert communities hospitalised for symptoms related to petrol sniffing also frequently self-discharged.

In the Northern Territory, the incidence of Indigenous patients discharging against medical advice emerged as a subject for discussion and concern after the publication of articles by anthropologist Janice Reid and her Yirrkala co-worker B. Dhamarrandji in 1978 (Reid 1978; Reid and Dhamarrandji 1978). These articles, although not based on specific empirical data on self-discharge, reported on research that was part of a wider study of traditional medical beliefs and practices in Arnhem Land. The focus is on the issues and concerns raised by health workers and community members living in the Yirrkala community, and their homeland centres. In 1971, a hospital was established in Nhulunbuy (Gove Hospital), a mining town located about 20 kilometres from Yirrkala. Prior to this, the patients from this community were hospitalised in Darwin. Reid and Dhamarrandji found that there was Indigenous community support for the hospital and confidence and trust in the non-invasive medical practices of hospital staff although there was still widespread fear of surgery. However, the self-discharge rates were still a concern for the staff and doctors of this facility. The authors noted five factors that contributed to patients discharging against medical advice: enforced isolation, lack of information about an illness and its treatment, indifference or hostility of staff toward a patient’s concerns, fear of the medical procedures and dislike of the hospital environment. The researchers also acknowledged the different perspectives and perceptions of staff and patients regarding these factors and the overarching communication difficulties, both linguistic and cultural, requiring what they call a ‘humanising’ of hospital care for Indigenous patients (Reid and Dhamarrandji 1978).

In 1999 a study at Alice Springs Hospital (Beckman, Franks et al. 1999) explored self-discharge and identified the high numbers of Indigenous patients involved. The research findings were incorporated into Franks’ Masters of Epidemiology Thesis (Franks 2000). Interviews were held with 19 patients, including 11 in remote communities, and with 38 staff mostly from Alice Springs Hospital. In addition, researchers conducted 3 focus groups. Franks reported that again both staff and patients identified similar reasons why self-discharge occurred. In particular they cited “cultural and language differences, family and social obligations, loneliness and social isolation, believing they were ‘better’ and that it was ‘OK’ to go home, and the desire for alcohol/alcohol withdrawal” (Franks 2000).

While recognising that self-discharge occurs in all hospitals, staff in Alice Springs were concerned that Indigenous patients were more likely than non-Indigenous patients to leave hospital without notifying staff and were not completing treatment or receiving ongoing prescribed medication or follow up. Staff also reported high rates of self-discharge for Indigenous women receiving antenatal ultrasounds.

Although not focusing on self-discharge from hospitals other Territory studies including a review of Aboriginal and Torres Strait Islander health care in the Darwin area (Crawshaw and Thomas 1992), later research commissioned by the then Territory Health Services (THS) on Yolnu attitudes to hospitalisation (Amery 1999) and research in Central Australia on health care (Nathan and Japanangka 1983) confirmed in general the findings
of Reid and Dhamarrandji and Franks. The researchers concluded that in some instances positive changes had occurred in staff attitudes and patient satisfaction with the level of care. However, language and communication difficulties, not involving family in patient treatment, being removed from country, inadequate information about diagnosis, treatment and outcomes and the alien environment of hospitals and surgery continued to create a climate of mistrust and fear. The lack of cross-cultural orientation and training for staff and the effectiveness of cross-cultural courses that were available were also raised.

A further important study was conducted by Humphrey, Weeramanthri and Fitz (2000) who sought the views of Northern Territory health staff on the problem of non-compliance of Indigenous patients. Non-compliance, the failure to take-up or adhere to medical advice or treatment, might be seen as the crux of self-discharge behaviour. However, the researchers cautioned that in a cross-cultural context the medical term compliance needs to be contested and that the behaviour associated with non-compliance goes beyond being a medical issue. They concluded that:

*The uptake and refusal of advice and treatments …is not simply a problem of clinical practice, solvable within the medical encounter, but is irrevocably connected with interactional issues of cultural sensitivity, communication and time, with organisational and ideological issues of biomedical power and frameworks of thought and practice, and with structural issues of poverty, dispossession, marginalisation and institutionalised racism.* (Humphrey, Weeramanthri and Fitz. 2000 p26)
Themes emerging from the literature: Implications for Northern Territory medical services.

The points of convergence for the self-discharge episodes reported in international studies and in the limited Australian studies are focused on the patient’s social disadvantage, mental health concerns and alcohol and drug related problems. The minimal Australian work on Indigenous patients identifies other themes related to culture and history and health literacy and language as potentially unique—but less researched—causes for Indigenous people to self-discharge from hospitals. A summary of the literature is grouped according to these unique Australian Indigenous themes.

Culture and History

The colonisation of Australia resulted in ongoing upheaval and great social and cultural changes for Indigenous people. The negative impact of these changes on all aspects of life has long been evident and documented in all research and reports associated with health care, the social determinants of health and service delivery to Indigenous Australians (for example Reid 1982; Reid and Trompf 1991; Robinson 1995). Until relatively recently interest in Indigenous health was limited to collecting information about Indigenous people as medical subjects, particularly those living remotely and following semi-traditional ways. The attitudes and practices of both the medical profession and medical researchers associated with this early interest were often racist, discriminatory and at times infringed both legislation and policy (Kettle 1991; Nathan and Japanangka 1983; Thomas 2004; Thomas 2004). Despite some faltering attempts by the Government after World War 2 there continued to be a lack of medical services available to Indigenous people not only in the Northern Territory but throughout Australia. The focus on improving the health of Indigenous Australians only gained impetus in the 1960s as researchers began to recognise the health disparities between Indigenous and non-Indigenous Australians and when the 1967 referendum, which removed discriminatory references to Aboriginal people in the Australian constitution, paved the way for the granting of equal rights and citizenship (Franklin and White 1991).

In the 1989 Australian National Aboriginal Health Strategy (NAHS), health for Indigenous peoples was described as:

...a matter of determining all aspects of their life, including control over their physical environment, of dignity, of community self-esteem, and of justice. It is not merely a matter of the provision of doctors, hospitals, medicines or the absence of disease and incapacity. (Australian Health Ministers’ Conference 2003).

Subsequent Indigenous health strategies at Commonwealth and State/Territory levels continue to reflect this NAHS perspective which was originally based on the WHO Alma-Ata declaration of 1978 and a shift to a ‘health-based ‘rights’ agenda [which made] an
explicit association between health care, self reliance and self-determination’ (Brady 2005). These strategies, and the consultations with Indigenous Australians which have informed them, reiterate that the failure of the health system to understand these links and to take a holistic approach to health is one of many barriers that contribute to Indigenous people’s distrust of the system and their reluctance to utilise health care services (National Aboriginal and Torres Strait Islander Health Council 2001).

Indigenous people often have a different construct of health and well-being than that of most other Australians, although as Devitt and McMasters (1998 and also see Scrimgour, Rowse and Lucas) point out in their study of Central Australian renal patients, contemporary understandings are a melding of Indigenous socio-medical theories and medical science. This is due in part to the influence of decades of public health programs and the continued recourse by many Indigenous people to traditional healing practices for example consulting traditional healers or smoking and vacating houses where a death has occurred (Maher 1999; Fried 2000). Coming to terms with this deep cultural divide and how it impacts on health care is clearly one of the main challenges for health professionals.

The Commonwealth Government’s Royal Commission into Aboriginal and Islander Deaths in Custody (RCAIDIC) (1991) also identified that ‘the barriers associated with access and utilisation of health care was impacted by cultural misunderstandings and misconceptions.’ The Commission found there were many reported incidences of deaths in custody that appeared to be health related. Statements made by police and Indigenous people and presented as evidence to the Commission highlighted that sick Indigenous people were being incarcerated. Many of these individuals had a history of self-discharge from hospitals and severe social problems related to alcohol and homelessness.

The health records of one inmate who died in prison revealed that he absconded from hospital, did not wait for treatment or self-discharged on eleven occasions. This patient presented multiple times with injuries such as stab wounds, chest infections, complaining of chest pain and drug induced psychiatric problems. Kalgoorlie police testified that Indigenous people were more likely to run away from hospital and that although they would use the local Aboriginal Medical Service they would not be admitted to Hospital. Medical records for another inmate who died in custody noted that he frequently self-discharged because he had a fear of the hospital. This fear of hospitals was exacerbated by the alien and threatening environment of the wards and was confirmed in evidence by doctors to the Commission (Commonwealth of Australia 1991).

Assault and domestic violence hospital admissions for Indigenous people, often associated with alcohol abuse, can also be attributed to the impacts of colonisation and subsequent social and economic disadvantage and cultural cleavage. The rates of admission are high and increasing in the Northern Territory as a study using hospital admissions data from Alice Springs and Tennant Creek over 6 years from 1995 - 2001, coinciding in part with data analysed in this report shows (Williams et al. 2002). Adults aged 25-34 years were most frequently hospitalised for assault injury accounting for 90% of admissions, which is significantly higher than the 40% they represent in the region’s population. Hospitalisation rates for interpersonal violence were generally similar for
males and females but females represented 59.7% of people admitted at Alice Springs and 54.7% at Tennant Creek greater than their proportion in the NT population. These findings are related to the data analysed in this Report which shows the highest rates of self-discharge from these Central Australian hospitals for young Indigenous men and women.

**Trust and Utilisation of Health Care**

A recent spate of research in the social sciences and humanities has focused on memory and remembering as a social, as distinct from an individual, activity: one which is shared, interpreted, filtered, distorted and transmitted by social groups in a process of ‘collective remembering’ in daily life (Middleton and Edwards 1990; Fentress and Wickham 1992; Zerubavel 1996; Olick and Robbins 1998; Climo and Cattell 2002; Berliner 2005).

Zerubavel (1996), has argued that ‘being social presupposes the ability to experience events that had happened to groups and communities to which we belong long before we joined them as if they were part of our own past.’ Such shared memories ‘are not replicas or documentaries of events; they are interpretations’ (Climo and Cattell 2002). This framework goes some way towards explaining Indigenous patients’ mistrust of the health system and of hospitals as previous negative experiences of an individual are shared and magnified so that others in that circle take on the fear, not because they have had similar experiences but because they know and trust someone who did (Devitt and McMasters 1998; Houston 2003). An informant cited by Nathan and Japanangka in their Central Australian study illustrates this:

> The old people can not want to go because of the fact that there is that little mistrust of white people still. Because of the treatment they’ve had. They’ve either been used as guinea pigs or they’ve seen what’s happened. They’ve seen their fathers killed and so they’ve certainly got a mistrust of white people at the moment. (cited in Nathan and Japananga 1983 p.152.)

As Devitt and McMasters (1998 p.59) also point out such fears are not unfounded and people do die in hospital providing evidence for Indigenous people that medical treatments and knowledge can fail. Studies have also stressed the continued importance Indigenous people place on being able to die in their traditional country and close to family despite the often limited support services available to assist families and health staff care for terminally ill patients (Mobbs 1991; Nathan and Japanangka 1983; Woenne-Green 1995; Fried 2000). As was found in the Melbourne study at St Vincent’s hospital where elderly or terminally ill patients were more likely to self-discharge, some Indigenous patients will also self-discharge if they believe they are close to death and can return to their country.

A number of official publications also support these views of the impact of collective memory research (for example Commonwealth of Australia 1991; Human Rights and Equal Opportunity Commission 1997; The Royal Australasian College of Physicians 2003), and discuss the considerable, longstanding distrust by Indigenous people of the health system and Western medical practices. Memories of past colonisation policies, racist medical and nursing attitudes and research practices and cultural beliefs around
death and dying are still shared stories that nurture the collective memories of Indigenous people.

Health Literacy and Language

International studies show that health literacy is a key to utilisation and access to health care. Health Literacy is described as the ability or capacity of individuals to obtain, understand and be motivated to take action to improve their personal and community health by changing personal lifestyles and living conditions by accessing basic health information (Nutbeam and Kickbush 2000; Ratzan 2001; Nielsen-Bohlman, Panzer et al. 2004).

In a 2004 report, ‘Health Literacy: Prescription to End Confusion’, the US National Academy of Sciences confirmed that nearly half of all American adults have difficulty understanding and using health information (Nielsen-Bohlman, Panzer et al. 2004). The report comments on literacy levels being the lowest amongst disadvantaged groups and the elderly. For example, they identified that those with lower educational levels, from the poor or minority populations and groups with limited English proficiency have the most difficulty with understanding medical and health language. The research confirmed that it is impossible to deal with culture and language without taking health literacy into consideration when aiming to reduce health disparities. Cross-cultural differences in conceptions of health and illness, and differences in access to resources such as education and work, will affect definitions of need, ‘information-seeking’ behaviour, and propensity to use services (Henderson and Peterson 2002 p.3).

Researchers and others have reiterated that better communication between doctors and other medical staff and Indigenous patients is needed for effective health service delivery in the Northern Territory (Commonwealth Government 1991; Carroll 1995; Fried 2000; Trudgen 2000; Lowell 2001). Recent research by Cass, Lowell et al (2002) found that miscommunication was pervasive, noting that trained interpreters only provided a partial solution since key medical concepts were not shared by staff or by interpreters and patients. Such miscommunication often went unrecognised and is exacerbated in the Northern Territory where for many Indigenous people English may be an additional second, third or sometimes fourth language.

The 2001 census indicates that at least 17% of Indigenous people in the Northern Territory do not speak English well and the actual number is likely to be much higher. The difficulties encountered in attempting to interpret English words and concepts related to health and disease into Australian Indigenous languages are well documented. The need for interpreters to also be cultural brokers who are able to negotiate the differences in cultural values, understandings, assumptions and non-verbal communication behaviours that go beyond language has also been highlighted (Harkins 1994; Carroll 1995; Pauwels 1995; Fried 2000). For example, the very different meanings concerned with sorcery and other malevolent practices associated with kidneys in many Indigenous languages (Devitt and McMasters 1998), or the connotations associated with the term ‘heart attack’ seeming to suggest an external assailant in the minds of some Indigenous patients (Trudgen 2000),
need to be understood by staff and interpreters in order for accurate medical interpretations to be conveyed.

Crucial to these misunderstandings are different concepts of the causes of disease and death. Devitt and McMasters found that among the people interviewed in their study:

…the majority of patients continued to find traditional Aboriginal causes of illness the most satisfying explanation for their disease… both patients and the wider Aboriginal community believe strongly that the ultimate causes of life-threatening illnesses are in the realms of ‘non-natural’ phenomena including, but not limited to pre-meditated acts of sorcery’ (Devitt and McMasters 1998 p.86 and also see Berndt 1982; Reid 1983; Mobbs 1991; Nathan and Japanangka 1983; Weeramanthri 1995).

Despite these different understandings Devitt and McMasters found that this did not always impact on patients adherence to medical treatments and that for ‘any particular individual there was no straightforward, totally predictable link between beliefs about cause and compliance or adherence to medical requirements’ They go on to state that:

**Nevertheless, there was a dichotomy between the way the majority of the patients understood and explained well-being, serious illness and death, and the way their medical carers understood them; and this was the source – even if only indirectly- of at least some of what medical carers viewed as ‘non-compliance’ by patients with their medical treatment** (Devitt and McMasters 1998 p.87).

Indigenous people’s disadvantage on a number of levels but especially educational, can be seen to confound attempts to promote a better understanding of health and health care. While health promotion programs and materials have been targeted at Indigenous people, there is still work to be done on creating better health literacy that might in turn reduce self-discharge from hospitals in the Northern Territory.

**The Need for Health Systems Change**

The additional complications related to early self-discharge against medical advice, compliance, access and utilisation have all been areas of concern identified in the literature as relevant to improving the health standards of Indigenous people. The researchers and others have all recommended or suggested strategies to target these core issues.

Reid and Dhamarrandji (1978) reported that one of the most common complaints voiced by Indigenous people about the actions of medical staff was the lack of understanding and appreciation of their family and community kinship systems, and the strong family bonds and mutual obligations these engendered. Cultural differences regarding how a sick person was to be treated, and the role of the family and extended family in this process, sometimes created tensions among hospital staff, Indigenous patients and the wider community. These researchers recommended infrastructure and systems change to ‘humanise’ hospital care including narrowing the caring–curing gap and providing family facilities to allow family members to visit and stay, in particular mothers and caregivers of young children. They also suggested the need for more Indigenous staff, localisation and ‘Aboriginalisation’ of health services at all levels through decentralised training programs and provision of orientation and in-service courses for health
professionals aimed at cross-cultural understanding in the ‘needs, wishes, and norms of patient care and illness management.’

These early recommendations have since been reiterated by others advocating the critical need for interpreters and cultural-brokers, for community education materials or resources to inform Indigenous people about hospital treatment, procedures and services in addition to improved orientation procedures and protocols to better prepare a patient for admission. In 2001 a Consumer and Provider Partnership in Health Project at Alice Springs Hospital (Scott 2001) reported on the difficulties for Indigenous clients in accessing and understanding the health system within this region. Based on interviews with patients and community sector representatives and analyses of formal complaints made by consumers, the report supports concerns raised in other research about Indigenous people’s dissatisfaction with the health system and identifies strategies that may assist in providing better access and utilisation of health services. For Indigenous patients the main concerns were privacy, inconsiderate services, communication, discrimination and cultural inappropriateness. Recommendations are again similar to those identified in other research focusing on education, communication and consumer advocacy including that the Alice Springs health services establish and maintain a formal consumer feedback process.

Other studies have focused on how staff can be better prepared to cope with Indigenous patients. Suggestions have included the need to review and evaluate current cultural awareness training to ascertain its effectiveness (Maher 1999; Franks 2000; Humphrey, Weeramanthri and Fitz 2000; Hunt 2002), and the promotion of the sharing of regional Indigenous and non-Indigenous health concepts between health professionals and local Aboriginal Health Workers so that improved ways of communicating can be found (Trudgen 2000). In earlier work Henry (2004), argued that while Indigenous people’s health and welfare disadvantage is acknowledged attempts to address this issue have been based on non-Indigenous definitions of health, health benefit, well-being and need. Further failure to acknowledge that there are differences will lead to a continuing failure to meet need. Henry has suggested that methodologies and practices that acknowledge cultural differences and which articulate with the values underpinning those differences should be developed.

The Northern Territory’s Government’s Aboriginal Health and Families—A Five Year Framework for Action points to the need for a strong engagement and links with the Aboriginal Community Controlled Health Services to ensure that Territory health services are delivered in accordance with, and underpinned by, the cultural principles of the core Indigenous client group. This would help both embed cultural security and build a stronger continuum of care for Indigenous clients which may assist in reducing rates of self-discharge.

Indigenous people are over-represented in the acute care system. They often present with multiple co-morbidities and higher acuity requiring complex treatments. It has been shown that when patients self-discharge before their treatment is complete, and/or against medical advice, they are at greater risk of complications that may threaten their recovery or even lead to avoidable death. Despite this, little progress has been made in
alleviating these problems over decades. Qualitative data collected in this study confirm much of what has been reported in the literature.
Statistical Data Aggregate Report

Estimating the size of the problem of self-discharge was one of the key objectives of this work. For this Report the Northern Territory public hospital data from 1999/00 to 2003/2004 was examined. The Self-discharge Statistic Report Northern Territory Public Hospitals 1999/2000-2003/04 compiled by the Health Gains Planning Branch of the Department of Health and Community Services, provided a range of data drawn on here.

Rates, Frequency and Trends of Self-discharge

Table 1: Self-discharge and Self-discharge Rate, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th></th>
<th>No. of Self-discharge</th>
<th>Total</th>
<th>Rate of Self-discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count Separations</td>
<td>9,047</td>
<td>355,871</td>
<td>2.5%</td>
</tr>
<tr>
<td>Count Patients</td>
<td>5,239</td>
<td>97,951</td>
<td>5.3%</td>
</tr>
</tbody>
</table>

Over the study period from 1999-2004 there were 5,239 patients who contributed to 9,047 self-discharged separations in the five NT public hospitals.

Self-discharge separation accounted for 2.5% of separation. However, 5% of patients in the Northern Territory hospitals self-discharged at least once during the study period and the average frequency of self-discharge per patient was around 1.7.

Table 2: Rates of Self-discharge by Hospitals, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th></th>
<th>Rate of Self-discharge</th>
<th>Rate of Self-discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Count Separations)</td>
<td>(Count Patients)</td>
</tr>
<tr>
<td>Alice Springs Hospital</td>
<td>3.8%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Gove District Hospital</td>
<td>2.3%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Katherine Hospital</td>
<td>3.0%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Royal Darwin Hospital</td>
<td>1.6%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Tennant Creek Hospital</td>
<td>4.1%</td>
<td>9.3%</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>2.5%</strong></td>
<td><strong>5.3%</strong></td>
</tr>
</tbody>
</table>

Tennant Creek Hospital had the highest rates of self-discharge against medical advice in counts of both separations at 4.1% and patients at 9.3%. This was followed by Alice Springs Hospital at separations 3.8% vs patients 8.8% and Katherine Hospital at separations 3.0% vs patients 6.4%.
Table 3: Rates of Self-discharge by Indigenous Status and Northern Territory Hospitals, 1999/00-2003/04

<table>
<thead>
<tr>
<th></th>
<th>Rate of Self-discharge</th>
<th></th>
<th>Rate of Self-discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Count Separations)</td>
<td></td>
<td>(Count Patients)</td>
</tr>
<tr>
<td></td>
<td>Indigenous</td>
<td>Non-Indigenous</td>
<td>Indigenous</td>
</tr>
<tr>
<td>Alice Springs Hospital</td>
<td>4.8%</td>
<td>0.6%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Gove District Hospital</td>
<td>3.0%</td>
<td>0.2%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Katherine Hospital</td>
<td>3.7%</td>
<td>1.1%</td>
<td>11.0%</td>
</tr>
<tr>
<td>Royal Darwin Hospital</td>
<td>2.6%</td>
<td>0.6%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Tennant Creek Hospital</td>
<td>5.0%</td>
<td>0.9%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Average</td>
<td>3.7%</td>
<td>0.6%</td>
<td>12.4%</td>
</tr>
</tbody>
</table>

4,589 Indigenous people had a history of self-discharge in the five hospitals over the study period. These patients contributed to 8,206 self-discharge separations.

For the Indigenous population, Tennant Creek Hospital had the highest self-discharge rate when number of separation was counted (5.0%), while Alice Springs Hospital had the highest self-discharge rate when number of patients was counted (17.7%).

Indigenous patients were more than 11 times more likely to self-discharge than non-Indigenous (12.4% vs 1.1%).

Table 4: Frequency of Self-discharge Episodes by Self-discharged Patients

<table>
<thead>
<tr>
<th></th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=4589</td>
<td>N=650</td>
</tr>
<tr>
<td>Mean</td>
<td>1.79</td>
<td>1.29</td>
</tr>
<tr>
<td>Standard Error</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>1.91</td>
<td>0.94</td>
</tr>
<tr>
<td>95% Confidence Interval</td>
<td>1.73-1.84</td>
<td>1.22—1.37</td>
</tr>
<tr>
<td>Minimum</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Maximum</td>
<td>29</td>
<td>11</td>
</tr>
</tbody>
</table>

Figures are provided in Appendix Table14.

Of the 5,239 patients who self-discharged from Territory hospitals during the study period, 3,662 patients (70%) self-discharged only once while 30% (1,577) patients had more than one episode of self-discharge (see Appendix Table 1).

For Indigenous patients, 1,478 (32%) self-discharged more than once, 698 more than 3 and less than 9 times while 43 patients had more than 10 self-discharge episodes.

Indigenous patients had more frequent self-discharge episodes than non-Indigenous patients. This difference is statistically significant.

A maximum of 29 self-discharge episodes for a single patient was recorded in Northern Territory public hospitals during the 4-year study period.
Figure 1: Annual Trend of Self-discharge Rate by Northern Territory Hospitals 1999/00 - 2003/04

Figures provided in Appendix Table 15

Over the study period the trend of the self-discharge rate slightly increased from 2.4% in 1999/00 to 2.6% in 2003/04. However, despite this steady trend the rate of self-discharge differed among the five regional public hospitals.

Tennant Creek Hospital (TCH) had the highest self-discharge rate but the trend of self-discharge at Tennant Creek Hospital lowered over the study period and was surpassed by Alice Springs Hospital (ASH) in 2003/04.

Alice Springs Hospital had the second highest rate of self-discharge over the study period (3.8%), with a fluctuating rate.

Royal Darwin Hospital (RDH) had the lowest self-discharge rate but there are indications that there is an increasing trend from 1999-2004.
**Self-discharge by Districts**

**Table 5: Self-discharge Rate by District and Indigenous Status, NT Public Hospitals 1999/00-2003/04**

<table>
<thead>
<tr>
<th>District</th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alice Springs Urban Town Camps</td>
<td>9.5%</td>
<td>7.5%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Alice Springs Rural</td>
<td>6.1%</td>
<td>0.8%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Others</td>
<td>5.1%</td>
<td>0.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td>East Arnhem District</td>
<td>3.7%</td>
<td>0.4%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Katherine</td>
<td>3.5%</td>
<td>0.9%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Darwin Rural</td>
<td>2.7%</td>
<td>1.1%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Barkly</td>
<td>2.6%</td>
<td>0.6%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Alice Springs Urban</td>
<td>2.5%</td>
<td>0.5%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Darwin Urban</td>
<td>1.9%</td>
<td>0.5%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Total</td>
<td>3.7%</td>
<td>0.6%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Note: Others includes patients from interstate and overseas.

The self-discharge rate differs across Northern Territory districts, with the highest rate for those patients, both Indigenous and non-Indigenous, who lived around Alice Springs in Urban Town Camps at 9.5%.

The Darwin Urban area and Alice Springs urban area recorded lower rates of self-discharge against medical advice at 1.0% and 1.5%. This is consistent with the qualitative data.
Seasonal Change of Self-discharge

Data were analysed to determine if there was a seasonal change in the rate of self-discharge as this was sometimes identified as a determining factor in international research. Territory data showed a small seasonal fluctuation in both Tennant Creek Hospital peaking in December and in Gove District Hospital peaking in September. Other public hospitals in Darwin, Katherine and Alice Springs showed little variation and overall the total self-discharge rate was steady.

Figure 2: Monthly Change of Self-discharge Rate by NT Public Hospitals, 1999/00-2003/04
Self-discharge by Age Groups

Figure 3: Age-specific Self-discharge Rates and Self-discharge Rates by Indigenous Status, NT Public Hospitals 1999/00-2003/04

Figures in Table 6.

The distribution of age-specific self-discharge rate differed among the four population groups.

The rate of self-discharge was highest in Indigenous males followed by Indigenous females and non-Indigenous males. This contrasts with international data which consistently shows males as more likely to self-discharge.

Indigenous male and female patients and non-Indigenous male patients aged from 15-44 years had increased self-discharge rates. The peak rates for Indigenous males and females were for those aged 25-29 years, while for non-Indigenous males the peak rate was 30-34 years and for non-Indigenous females 15-19 years.
### Table 6: Age-specific Number of Self-discharge and Separations, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male Indigenous</th>
<th>Male Non-Indigenous</th>
<th>Male Total</th>
<th>Female Indigenous</th>
<th>Female Non-Indigenous</th>
<th>Female Total</th>
<th>Total Indigenous</th>
<th>Total Non-Indigenous</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td>0% 3%</td>
<td>2% 0%</td>
<td>3% 2%</td>
<td>0% 3%</td>
<td>2% 0%</td>
<td>3% 2%</td>
<td>0% 3%</td>
<td>2% 0%</td>
<td>3%</td>
</tr>
<tr>
<td>5-9</td>
<td>0% 1%</td>
<td>1% 0%</td>
<td>1% 1%</td>
<td>0% 1%</td>
<td>1% 0%</td>
<td>1% 1%</td>
<td>0% 1%</td>
<td>1% 0%</td>
<td>1%</td>
</tr>
<tr>
<td>10-14</td>
<td>0% 2%</td>
<td>1% 0%</td>
<td>4% 2%</td>
<td>0% 3%</td>
<td>2% 0%</td>
<td>2% 0%</td>
<td>2% 0%</td>
<td>2% 0%</td>
<td>2%</td>
</tr>
<tr>
<td>15-19</td>
<td>1% 8%</td>
<td>5% 1%</td>
<td>5% 3%</td>
<td>1% 5%</td>
<td>4% 1%</td>
<td>5% 3%</td>
<td>2% 1%</td>
<td>3% 1%</td>
<td>3%</td>
</tr>
<tr>
<td>20-24</td>
<td>2% 9%</td>
<td>6% 0%</td>
<td>5% 3%</td>
<td>1% 6%</td>
<td>4% 2%</td>
<td>5% 3%</td>
<td>2% 2%</td>
<td>3% 2%</td>
<td>3%</td>
</tr>
<tr>
<td>25-29</td>
<td>2% 12%</td>
<td>7% 0%</td>
<td>6% 4%</td>
<td>1% 8%</td>
<td>5% 2%</td>
<td>7% 4%</td>
<td>2% 2%</td>
<td>4% 2%</td>
<td>4%</td>
</tr>
<tr>
<td>30-34</td>
<td>2% 11%</td>
<td>7% 0%</td>
<td>6% 3%</td>
<td>1% 8%</td>
<td>5% 2%</td>
<td>7% 3%</td>
<td>2% 2%</td>
<td>3% 2%</td>
<td>3%</td>
</tr>
<tr>
<td>35-39</td>
<td>2% 9%</td>
<td>6% 1%</td>
<td>5% 3%</td>
<td>1% 6%</td>
<td>4% 2%</td>
<td>7% 3%</td>
<td>2% 2%</td>
<td>3% 2%</td>
<td>3%</td>
</tr>
<tr>
<td>40-44</td>
<td>2% 6%</td>
<td>5% 1%</td>
<td>5% 3%</td>
<td>1% 5%</td>
<td>4% 2%</td>
<td>7% 3%</td>
<td>2% 2%</td>
<td>3% 2%</td>
<td>3%</td>
</tr>
<tr>
<td>45-49</td>
<td>1% 3%</td>
<td>2% 0%</td>
<td>2% 2%</td>
<td>1% 3%</td>
<td>2% 1%</td>
<td>4% 2%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>2%</td>
</tr>
<tr>
<td>50-54</td>
<td>1% 3%</td>
<td>2% 0%</td>
<td>1% 1%</td>
<td>0% 2%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>2%</td>
</tr>
<tr>
<td>55-59</td>
<td>1% 2%</td>
<td>1% 0%</td>
<td>1% 1%</td>
<td>0% 1%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>2%</td>
</tr>
<tr>
<td>60-64</td>
<td>1% 1%</td>
<td>1% 0%</td>
<td>0% 0%</td>
<td>0% 1%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>2%</td>
</tr>
<tr>
<td>65-69</td>
<td>1% 1%</td>
<td>1% 0%</td>
<td>0% 0%</td>
<td>1% 0%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>1% 1%</td>
<td>2% 1%</td>
<td>2%</td>
</tr>
<tr>
<td>70-74</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0%</td>
</tr>
<tr>
<td>75+</td>
<td>1% 1%</td>
<td>1% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0% 0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

The total number Indigenous people self-discharging (8,206) is more than 11 times the number of non-Indigenous people (841).

Young Indigenous women between the ages of 10 and 29 years are also reported as self-discharging more than non-Indigenous women of the same ages (1,713 vs 100).

Indigenous babies and children aged 0-4 years are also self-discharged in far greater numbers than non-Indigenous children (740 vs 21).
Length of Stay of Self-discharge Patients

The Length of Stay (LOS) of self-discharging patients was compared to the national average LOS according to the same DRGs to determine if patients stayed in hospital longer than the national average before self-discharging.

Table 7: Summarisation of Self-discharge Patients’ LOS Compared to the National Average Length of Stay, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th>Indigenous Status</th>
<th>LOS Mean (±SD)</th>
<th>95% CI</th>
<th>National ALOS Mean (±SD)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous</td>
<td>4.37 (± 0.06)</td>
<td>4.25 - 4.49</td>
<td>4.36 (± 0.04)</td>
<td>4.27 - 4.44</td>
</tr>
<tr>
<td>Non-Indigenous</td>
<td>4.12 (± 0.26)</td>
<td>3.61 - 4.64</td>
<td>4.06 (± 0.14)</td>
<td>3.78 - 4.33</td>
</tr>
<tr>
<td>Total</td>
<td>4.35 (± 0.06)</td>
<td>4.23 - 4.47</td>
<td>4.33 (± 0.04)</td>
<td>4.25 - 4.41</td>
</tr>
</tbody>
</table>

Self-discharge usually occurred on the 5th day of the hospital admission. Again this data for both Indigenous and non-Indigenous patients is consistent with national and international average Length of Stay which suggests that patients usually stay for around 5 days in hospital before taking the decision to self-discharge.

The Territory data confirmed that the actual LOS of self-discharged patients for Indigenous patients was slightly longer than for non-Indigenous patients with p>0.05.

Table 8: Summarisation of Self-discharge Patients’ LOS Longer/Shorter Than the National Average LOS, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th>Indigenous Status</th>
<th>LOS Equal to or longer than National Average LOS</th>
<th>LOS shorter than National Average LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mean(diff)</td>
<td>No. of Separation</td>
</tr>
<tr>
<td>Indigenous</td>
<td>3.6</td>
<td>3524</td>
</tr>
<tr>
<td>Non-Indigenous</td>
<td>4.8</td>
<td>263</td>
</tr>
<tr>
<td>Average</td>
<td>3.7</td>
<td>3787</td>
</tr>
</tbody>
</table>

Despite similarities between the Territory and national data for LOS there were differences across various DRGs. Some were significantly longer than the national average and some much shorter than the national average.

There were 3787 (42% of 9047 self-discharge) episodes where patients self-discharged after having been in the hospitals for an average 3.7 days longer than the national average expected LOS. Another 58% of self-discharged patients stayed in the hospitals 2.6 days shorter than the national average LOS.

Appendix Tables 17 and 18 show the top 10 DRGs with the longest LOS and with the most frequent DRGs for both Indigenous and non-Indigenous patients.
Readmission Rate of Self-discharged Patients

Patients with renal failure need renal dialysis treatment three times a week. These treatments are recorded in the hospital patient data. Admissions due to renal dialysis treatment were not counted as readmission according the definition. This section looks at the readmission rate for self-discharge episodes versus the rate for non-self-discharge episodes.

Table 9: Self-discharge Related Readmission NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Self-discharge Separations</th>
<th>% of Total Self-discharged Separations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-discharge with no followed up readmission</td>
<td>5,337</td>
<td>59%</td>
</tr>
<tr>
<td>Self-discharge followed by a readmission</td>
<td>1,500</td>
<td>17%</td>
</tr>
<tr>
<td>Readmission with self-discharge episode</td>
<td>1,378</td>
<td>15%</td>
</tr>
<tr>
<td>Readmission with self-discharge status episode, followed by a readmission episode</td>
<td>832</td>
<td>9%</td>
</tr>
<tr>
<td>Subtotal of self-discharge related readmission</td>
<td>3,710</td>
<td>41%</td>
</tr>
<tr>
<td>Total Self-discharge separations</td>
<td>9,047</td>
<td>100%</td>
</tr>
</tbody>
</table>

Tracing the repeat episodes of self-discharge among patients becomes quite complex. Of the 9,047 self-discharge separations, the majority at 59% (5,337) were not related to readmission while 41% (3,710) of separations were readmission related.

Of the 3,710 self-discharge related readmissions, 2,332 (1,500+832) were self-discharge episodes following a readmission. These were either readmission episodes with a further self-discharge or self-discharge with follow-up readmission. 832 (9%) of episodes were readmission episodes for patients who had already self-discharged followed by the second readmission probably due to a previous self-discharged episode.

Table 10: Readmission Rate Versus Self-discharge Rate, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th>Self-discharge</th>
<th>Readmission</th>
<th>Readmission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
<td>304,149</td>
<td>42,675</td>
</tr>
<tr>
<td>Yes</td>
<td>6,716</td>
<td>2,331</td>
</tr>
<tr>
<td>Total (Average)</td>
<td>310,865</td>
<td>45,006</td>
</tr>
<tr>
<td>Self-discharge</td>
<td>2.16%</td>
<td>5.18%</td>
</tr>
</tbody>
</table>

While the readmission rate in the Northern Territory public hospitals was 12.6% the readmission rate was much higher in self-discharged than in non self-discharged patients —25.8% vs. 12.3%.
Table 11: Readmission Rates by Indigenous and Self-discharge Status, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th></th>
<th>Indigenous</th>
<th>Non-Indigenous</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Self-discharge</td>
<td>10.1%</td>
<td>15.8%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Self-discharge</td>
<td>26.2%</td>
<td>21.3%</td>
<td>25.8%</td>
</tr>
<tr>
<td>Average</td>
<td>10.7%</td>
<td>15.8%</td>
<td>12.6%</td>
</tr>
</tbody>
</table>

Non-Indigenous patients had a higher readmission rate than Indigenous patients (15.8% vs. 10.7%) with p<0.05.

The readmission rate was twice as high for self-discharged separations than for non self-discharge episodes (25.8% vs. 12.3%), with p<0.05.

Of those self-discharge episodes, the readmission rate was higher for Indigenous than for non-Indigenous patients (26.2% vs. 21.3%), with p<0.05.

Table 12: Number of Day Gaps Between Admission and Readmission for Self-discharged Patients by Indigenous Status.

<table>
<thead>
<tr>
<th>Group</th>
<th>No.of Separation</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous</td>
<td>8206</td>
<td>2.3</td>
<td>0.1</td>
<td>5.6</td>
<td>2.2 2.4</td>
</tr>
<tr>
<td>Non-Indigenous</td>
<td>841</td>
<td>1.6</td>
<td>0.2</td>
<td>4.8</td>
<td>1.3 2.0</td>
</tr>
<tr>
<td>Combined</td>
<td>9047</td>
<td>2.2</td>
<td>0.1</td>
<td>5.5</td>
<td>2.1 2.4</td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>0.7*</td>
<td>0.2</td>
<td>0.3</td>
<td>1.0</td>
</tr>
</tbody>
</table>

* p=0.001

In general the day gap between a return to hospital to complete treatment following a self-discharge episode was 2.2 days. However, it took 0.7 day longer on average for Indigenous patients to be readmitted than non-Indigenous patients (2.3 days vs. 1.6 days) (p=0.001).
Self-discharge Against Medical Advice from Northern Territory Hospitals

Figure 4: Percentage of Self-discharge by Discharge Unit, NT Public Hospitals 1999/00-2003/04

Self-discharge against medical advice most commonly occurred in the medical unit (37%). This was followed by the surgical unit (21%), orthopaedic unit (8%) and paediatric unit (8%).

Figure 5: Percentage of Self-discharge by Indigenous Status and Discharge Unit, NT Public Hospitals 1999/00-2003/04

Indigenous patients self-discharged more than non-Indigenous patients in the paediatric, renal, obstetric and boarder units while non-Indigenous patients were more likely to self-discharge from the surgical, orthopaedic, infectious, emergency and psychiatric units.

Self-discharge rates from various units differ in each hospital. In Alice Springs Hospital the top three units of self-discharge were medical, surgery and orthopaedic.

Self-discharge Against Medical Advice from Northern Territory Hospitals

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In Royal Darwin Hospital the emergency unit recorded the highest rate of self-discharge at 6.7%, followed by the infectious unit at 5.1%, plastic unit at 4.0% and the medical unit at 4.0%.

In the three regional hospitals, apart from medical, orthopaedic and surgical units the psychiatric unit was another common place that self-discharge took place with 7.4% in Tennant Creek Hospital, 7.1% in Gove District Hospital and 5.6% in Katherine Hospital.
Economic Analysis

The Costs of self-discharge

For the period 1999 to 2004, Northern Territory public hospitals recorded 9,047 self-discharge episodes. Based on Diagnosis Related Group (DRG) and using national average costs, it is estimated that $30 million was spent on incomplete medical treatment across the Northern Territory health system.

This amount accounts for 4% of the total acute care costs in the Northern Territory public hospitals in the five-year reporting period. With a readmission rate of 25% of self-discharge episodes, the extra cost of follow-up readmission is estimated at $8.6 million. After adjusting for the 12% expected non-self-discharge readmission, the adjusted cost for follow-up readmission extra cost currently is $3.8 million. The estimated net saving for preventing the majority of self-discharge episodes was expected to be $4.7 million across five years. This sum does not include any indirect and substantial costs attached to, for example, the increased use of Aboriginal Liaison Officers (ALOs) and interpreters who are not available to other patients, bed space not available to other patients such as those scheduled for elective surgery, and acuity costs for people who may need higher level of care on the second or subsequent admissions that could have been avoidable. It also does not include any additional transport cost incurred by the follow-up readmission.

Table 13: The Annual Actual and Adjusted Acute Care Costs Incurred by Self-discharged Patients, NT Public Hospitals, 1999/00-2003/04

<table>
<thead>
<tr>
<th>Year</th>
<th>Self-discharge Cost</th>
<th>Extra Follow-up Readmission Cost</th>
<th>Adjusted Follow-up Readmission Cost</th>
<th>Total self-discharge+ Follow-up Costs</th>
<th>Total self-discharge + Adjusted Follow-up Costs</th>
<th>Cost saving by having Self-discharge prevention program</th>
</tr>
</thead>
<tbody>
<tr>
<td>99/00</td>
<td>4,292,179</td>
<td>1,140,393</td>
<td>541,122</td>
<td>5,432,572</td>
<td>4,833,302</td>
<td>599,271</td>
</tr>
<tr>
<td>00/01</td>
<td>5,150,951</td>
<td>1,531,353</td>
<td>717,348</td>
<td>6,682,304</td>
<td>5,868,299</td>
<td>814,005</td>
</tr>
<tr>
<td>01/02</td>
<td>6,512,361</td>
<td>1,932,733</td>
<td>821,726</td>
<td>8,445,094</td>
<td>7,334,087</td>
<td>1,111,007</td>
</tr>
<tr>
<td>02/03</td>
<td>6,375,231</td>
<td>1,730,532</td>
<td>844,554</td>
<td>8,105,763</td>
<td>7,219,785</td>
<td>885,978</td>
</tr>
<tr>
<td>03/04</td>
<td>7,249,847</td>
<td>2,295,056</td>
<td>933,316</td>
<td>9,544,903</td>
<td>8,183,163</td>
<td>1,361,740</td>
</tr>
<tr>
<td>Total</td>
<td>29,580,569</td>
<td>8,630,067</td>
<td>3,858,067</td>
<td>38,210,637</td>
<td>33,438,636</td>
<td>4,772,000</td>
</tr>
</tbody>
</table>

Note: while there are estimated savings for the health systems, these figures need to be read with caution. For the purpose of the report, these costs have been generalised but are likely to be underestimated. The Productivity Commission has reported:

Overall, after adjusting for length of stay and differences in hospital costs due to locational factors, costs per separation within AR-DRGs for Indigenous patients were 6 per cent higher than for non-Indigenous patients in 1998-99. This gap varied across jurisdictions. Costs per separation for Indigenous patients were 4 per cent lower in NSW and 6 per cent lower in Queensland, whereas...
WA, SA and NT costs per separation for Indigenous patients were 5 per cent, 13 per cent and 6 per cent higher respectively. Higher costs in SA in 1998-99 were the result of treatment of Indigenous patients many hundreds of kilometres from home. Many of the high cost NT patients are treated in SA hospitals (AIHW 2001).

This is due to the complexities of Diagnosis Related Group (DRG) used and event differences in how self-discharge is described in different places in the medical record. Any calculations may be confounded by actual causes of admission and readmission—i.e. is the patient readmitted for complications from previous admission or, even though previously described as self-discharging is the patient being admitted for something else in the current episode.

Figure 6: The Annual Actual and Adjusted Acute Care Costs Incurred by Self-discharged Patients, NT Public Hospitals, 1999/00-2003/04

Figure 7: Annual Trend for Readmission Rates and Average Cost, self-discharge versus Non-Self-discharge, Northern Territory Public Hospitals, 1999/00-2003/04
Perceptions of Staff and Indigenous Informants

Introduction

Six focus group sessions and 12 interviews with staff in a wide range of positions and wards or departments within the Acute Care System were held across the five regional hospitals in June 2005. In addition a focus group was conducted with the Office of Indigenous Health Policy in the Department of Health and Community Services in Darwin. In late 2005, following approval from AMSANT, researchers hoped to involve Aboriginal Medical Services and through them conduct interviews with patients who had self-discharged. From April to June in 2006 a further focus group with Aboriginal Health Workers at Anyinginyi Congress in Tennant Creek and 6 interviews were conducted but unfortunately, despite repeated attempts, researchers were unsuccessful in contacting other Aboriginal Health Services and were unable to include this wider input and patient perspectives. However, researchers were able to obtain a summary of interviews with 30 Aboriginal male patients conducted from January to June 2006 at Royal Darwin Hospital as part of a PhD study. This has provided some additional data on Indigenous hospital experiences.

In the hospitals some participants had spoken with other staff members about these issues prior to the interviews and focus groups providing a broader cross-section of views, experiences and innovative ways of dealing with self-discharge. Through this process an estimated sixty staff members were given the opportunity to reflect on past experiences and share their perceptions and suggestions for a way forward. Many years of experience informed the opinions of these staff and this is evident in the quality and succinctness of their comments. Staff members were also generous and accommodating with the time taken for the interview process. It is acknowledged that staff participants demonstrated a dedication to assist in reducing the level of self-discharge, but even more importantly, in addressing some of the reasons why it occurs.

Perceptions of the characteristics of self-discharging patients

Staff from all regions indicated that self-discharge was a major problem although there was a belief that Alice Springs and Darwin had made improvements on the wards such as increasing efficiency in admissions processes preventing ‘bottle necks’ contributing to a decrease of self-discharge separations. Staff were consistent in their views that the rate of self-discharge occurred on a daily basis. All participants recognised that some patients the ‘frequent flyers’ had repeat episodes of self-discharge. There was also a consistent perception from all participants that a majority of self-discharging patients were Indigenous, usually young males often under 45 years with alcohol dependency or substance abuse and with an average stay in hospital of between three and four days.
before they left. In Katherine one participant mentioned that for some repeat self-discharging patients ‘coming into hospital is like going through a revolving door and these patients most likely will not see 35 years of age.’

There was a perception that some of the patients who previously lived in remote locations, due to their alcohol dependency now appear to have town based addresses. There is possibly a belief on the part of staff that self-discharge associated with alcohol dependency is higher for town-based people than for those living remotely. Staff also believed these patients are more likely to be chronically ill with co-morbidities.

Both Alice Springs and Royal Darwin hospital staff were aware that a small proportion of self-discharging patients were either overseas tourists, ‘…European tourists who get cranky and just leave’, or non-Indigenous patients, often from a culturally or linguistically diverse background (CALD) and those with spinal cord injuries. Racial tensions in the wider community were also thought by some to be influencing interactions within the hospital. Another participant with many years experience in Central Australia commented that ‘…Many non-Indigenous town based people currently will go to interstate hospitals. They have never used Alice Springs hospital.’ This may be linked to a preference to be treated away from Indigenous patients. Participants in two focus groups mentioned that these small subgroups potentially warranted further investigation and the consensus was that ‘…Tourists and non-Indigenous town based people need to be catered for.’

Staff who worked predominantly in the Paediatrics Ward reported that women were more likely to accompany their children and to discharge them without medical advice causing general concern among staff. It was also reported that some Indigenous mothers don’t feel comfortable asking questions about their child’s treatment and worry that they are considered ‘difficult escorts.’ At Alice Springs Hospital one participant stated that ‘the level of understanding [of some staff] concerning Indigenous ways of mothering and bringing up children is minimal... [there] is a reflected attitude that Indigenous mums are not good and they are made to feel very uncomfortable.’ In Tennant Creek hospital staff spoke of the fear of authorities on the part of some Indigenous parents and of the repercussions that parents thought might occur if sick or injured children are brought to hospital. ‘Parents don’t want their children in hospital. If the child looks well they want to take them home.’ Staff also thought that the Special Care Nursery is perceived by Indigenous mothers’ as a ‘…very hostile and alienating environment. They feel they are always being told what not to do. They are not able to hold their babies for very long.’

Participants at Tennant Creek, Gove and Katherine Hospitals identified other groups of women likely to self-discharge. Pregnant women, often those at risk, are flown from their remote communities to hostels at 36 - 38 weeks to birth in hospital. However, the wait often proves too long for women without family support and with family obligations or with older children left in their communities and it is not uncommon for them to leave the hostel and return home. Women staying at hostels off the hospital campus also report being humbugged and intimidated by family and other community members often fuelled by alcohol which also causes them to leave. Participants commented that for a patient who is ‘…flown in by PATS [Patient Assisted Travel Scheme] at 36 weeks and
then again, often a week later when labour has commenced, the transport back home after
the birth is an issue.’ For the majority of women PATS is available for up to three
antenatal visits to specialist obstetricians or a public hospital antenatal clinic and for
confinement but a return ticket is only issued on completion of hospital treatment. A
patient who self-discharges would need to fund the return travel to their community.

Women admitted to hospital following incidents of domestic violence cases were also
thought more likely to self-discharge since they usually only wanted to stay overnight for
treatment or were pressured by an abusive partner to return home. One participant
stated that they ‘will go home the next day but are back again after several nights. This
issue [domestic violence] is very visible in a small community. After a while you get to
know these patients.’ Other Indigenous women with chronic conditions combined with
alcohol dependency were also likely to self-discharge primarily to obtain alcohol.

Rehabilitation Services staff at the Royal Darwin Hospital reported that it was common
for long-stay patients to self-discharge on weekends when the Aboriginal Liaison Officers
are not at work. One staff member spoke of the challenges:

Treatment for the Inpatients from the Rehab Ward of RDH is more affective when the patient wants
to participate. It is important for the Staff at the Rehabilitation Services to be ‘in tune’ with how the
patient is feeling. There are times where the patients will inform the staff about why they are
unhappy and that they want to go home. Wherever possible we attempt to negotiate with the patient
and the family to create a more conducive environment to keep the patient for a while longer.

Another staff member backed this up:

there is a small percentage of patients that will return for ongoing rehab, but many will not,
choosing to live with a greater disability than return to hospital due to the ‘old story’ about getting
sick if you go to hospital.

Staff from Anyinginyi Congress and other Indigenous informants revealed a further
dimension to self-discharge. They were concerned that there are often no formal
arrangements in place to follow up or notify Aboriginal Medical Services of patients who
self-discharge although ad hoc informal arrangements are sometimes made between
hospital based Aboriginal Liaison Officers and the Aboriginal Medical Service staff to
assist particular patients, often those known to staff. There was concern that many
patients were ‘falling through the gaps’ and that more formal arrangements could be
made between hospital and local Aboriginal Medical Services, particularly in regional
areas, to better manage self-discharging Indigenous patients. Aboriginal Health Workers
also expressed dissatisfaction with their role in hospitals claiming that they were not able
to use their clinical skills in the hierarchical hospital system. Conversely they were also
not utilised appropriately as cultural brokers, for example to assist Indigenous patients
adjust to the hospital routine and to understand the reasons for their hospitalisation,
medication and hospital routine. Instead, they are involved primarily after problems
have occurred or patients have self-discharged.

**Perceived reasons underlying patient self-discharge against medical advice.**

Self-discharge Against Medical Advice from Northern Territory Hospitals
Indigenous informants and health staff provided comprehensive and consistent information about what they perceived to be the experiences of Indigenous hospital patients and the reasons they thought Indigenous patients were more likely than non-Indigenous patients to self-discharge from hospitals. Participating hospital staff displayed considerable empathy, concern and understanding of issues for Indigenous patients and there was a high level of correspondence with issues identified by Aboriginal Medical Services staff. Hospital staff and other key informants also expressed frustration that hospital routines, cancellations or waiting times for procedures and appointments, architecture and internal layout and medical treatment were so alien for these people and that some services were inefficient and in need of improvement. On many occasions differing combinations of a lack of resources, complex medical regimes, patient ‘non-compliance’ and demands and pressures from patient families, as well as language and other communication barriers, make it hard for staff to meet both the patient’s clinical needs and deal with the complex issues that cause some to self-discharge. The key themes to emerge from interviews are detailed below.

**Linguistic and cross-cultural communication issues**

Miscommunication, or lack of communication both linguistic and cultural, between staff and Indigenous patients emerged as a critical issue from all focus groups and interviews. Hospital staff acknowledged that Indigenous people have a different understanding about the disease process, medical treatment and hospital routine and different worldviews of health and wellbeing which may be devalued by some non-Indigenous staff. They also recognised that the use of technical/medical language and jargon was often not understood by patients and contributed to Indigenous and other patients’ lack of understanding of their illness and its treatment. One Indigenous informant commented that staff seemed to assume that urban Indigenous patients would understand what a doctor or nurse was saying because they could speak English but that this was not always the case. There was consistent frustration expressed about communication across so many Indigenous language groups, the need but not the resources for interpreters 24 hours a day and the sheer difficulty of not being able to ‘get through.’ Staff provided several examples of procedures and treatments known to cause anxiety to Indigenous patients. These included fear of instruments and needles, being kept in isolation or not being able to move from the ward or go outside because of infections or wounds, waiting for long periods for procedures like ultra-sound, x-rays and theatre and needing to finish a course of antibiotics before discharge. Theatre management was a particular concern due to delays and rescheduling patient operations or other procedures up to four days with prolonged or repeated fasting for patients. Staff accepted that patients may feel lonely, unsafe and neglected if they are isolated or have not been able to eat for a day or two but found explaining the reasons for these procedures difficult to communicate. Some commented that even the explanations of Aboriginal Health Workers and Aboriginal Liaison Officers were not able to allay the fears of Indigenous patients.
Patients requiring long-term treatment were also a concern particularly if they were not overtly sick. Staff spoke of the challenges they faced in knowing that Indigenous people would prefer to leave quickly but that longer treatment was necessary for full recovery. There was also mention of the expectation on the part of some Indigenous patients that ‘white man’s medicine will work quickly and when this doesn’t happen they go.’ Staff were also aware that an Indigenous patient’s illness and health needed to involve the wider family since family support and understanding of the illness was crucial if treatment was to be successful. However, this often proved difficult particularly when family members were worried and wanting to go into hospital to take the person home. Where possible, interpreters and Aboriginal Liaison Officers are used in hospitals to overcome these barriers but as one nurse stated, ‘Aboriginal patients feel they are losing control of themselves and they just walk off anyway.’ A participant from Alice Springs summed up the difficulties:

From the time the patient walks in to the ward there are communication problems. Many Indigenous people do not understand why they are in hospital and what is going to happen to them. They are worried for their family, their children, and other sick people. There is no orientation here for Indigenous people to explain what facilities are available on the ward there should be a focus on the Informed Consent process when patients come into hospital.

Financial concerns

Participants believed that financial worries also played a large part in patient’ self-discharge for both Indigenous and non-Indigenous patients. Patients without family support or with family responsibilities needed to go to the bank, especially on payday ‘to look after family’ and to pay bills. This is often linked to reduction of services and support roles provided by staff, for example where Aboriginal Liaison Officers no longer take patients to the bank patients will now self-discharge to go to the bank to get money and will often not return.

Social and cultural issues

All participants identified various social and cultural issues that contributed to high rates of self-discharge in Indigenous patients. Family responsibilities, particularly for women, were commonly identified and participants noted that many mothers had left children at home in the care of relatives and were anxious for their well-being. Their worry was exacerbated where they were within hearing distance of sick and crying children in the Children’s Ward causing increased stress and creating a strong feeling for the mother to want to go home to her children. Indigenous informants thought that staff often did not understand the difficult choices that women faced. Mothers with premature or sick babies boarding at hostels often faced considerable family pressure to return home and felt obligated to leave hospital to care for older children leaving the baby in hospital where they knew it would be well cared for.
In Royal Darwin Hospital, although it was not considered as a major issue there was an empathy with the dilemma faced by Indigenous women.

A participant commented:

where a mother with more than one child needs to arrange for child minding in the community but is not able to. The mother will bring in other children with her and it is not easy to accommodate – the mother is not able to give attention to the sick child. It is also sometimes difficult where the partner wants the mother out of hospital looking after the family there is a sense the child is being looked after by the hospital. This situation is not about mothers not caring it is about trying to balance all the demands.

Other women may be worried about a partner who might be drinking or know their absent partner will be jealous.

It was accepted by hospital staff that many Indigenous patients did not want to be in the ‘system’ at all and it was common for patients, once they were feeling better, to leave irrespective of their medical condition. Staff also reported that people are often frightened to stay too long in hospital for fear of dying in hospital and not on their lands or with family. A Katherine participant advised that ‘where a person has been told that if they stay in hospital they can extend their life for another six months [staff] need to respect their decision to go home and attend to loose ends and die on country.’ Others leave on being told that their condition is serious and they need to be flown interstate alone for medical treatment unless they can pay for a family member to accompany them – ‘They will just leave when they get this type of news.’

The isolation, loneliness and boredom experienced by patients, particularly those from remote areas or in hospital for long stays, who received few visits from family members was considered a contributing factor in self-discharge. Staff mentioned that even when a ward was occupied predominantly by Indigenous patients they were not able to support each other because there was often no common language. Some patients wanted to take the opportunity to meet with friends, or go shopping while others dislike hospital food, are missing bush tucker, want social activities provided in hospital, want to smoke tobacco or marijuana or are alcohol dependent or petrol sniffing. A Katherine informant stated that ‘if alcohol withdrawal is not picked up early the patient will be gone within 24 to 48 hours.’ Staff suggested that if patients have gone drinking outside they are then often too frightened to come back into the ward, or if they are late coming back they might have problems with the Security Officers and won’t return. At Tennant Creek hospital a focus group participant reported that most self-discharging patients were Indigenous people with alcohol dependency:

Some of these people live in environments where they don’t have food or shelter. When they come into hospital even the warm environment and food doesn’t keep them here. As soon as they start to feel better they just go. We try to be flexible with people who just want to go down the road for a while.
Patients were also often known to self-discharge to attend to cultural obligations including funerals and extended ‘sorry business’ and to provide family support during this period of mourning. In Tennant Creek staff thought patients were also more likely to self-discharge to attend cultural ceremonies in January and February each year.

Participants also mentioned that Indigenous people with housing in urban areas are often worried about their homes being damaged by visitors while they are absent and often self-discharge if they are notified that this is happening. These anxieties about property were shared by non-Indigenous patients who were also likely to self-discharge to check on their house if they were worried they had left lights or electrical items turned on.

Transport costs and availability were also thought to play a part in self-discharge against medical advice. Public transport is unavailable throughout most of the Northern Territory. If a private vehicle is returning from a regional centre to a remote community patients were likely to self-discharge knowing that it might be weeks before they would have another opportunity.

Hospital environment

While some hospitals in the Territory are considered appropriate and comfortable by Indigenous patients others complain of the air-conditioning, stairs, high rise buildings and lack of outdoor spaces where they can sit and meet with family. Wards are either too cold or too hot. Beds may be placed inappropriately where space is limited so that males and females are in the same sections within a ward, where toilets are unisex or when patients are placed with someone with whom they have an avoidance relationship. There are other concerns for male patients who do not like being cared for or spoken to by female staff and are intimidated by female doctors. While this can in part be overcome during standard working hours using Aboriginal Health Workers and interpreters at any other time such cultural needs cannot be accommodated.

Staff skills, ability, attitudes and awareness

Another concern expressed by participants was with what was described as the often racist attitudes and inappropriate or insensitive behaviour and lack of attention of some hospital staff towards Indigenous patients. This was exacerbated by the high turnover of staff and the constant influx of staff with no experience in caring for Indigenous patients and little knowledge or understanding of the emotional, cultural and social issues they and their families faced including why health might not be viewed as a priority for the patient or family members. Staff described how occasionally this situation leads to assumptions being made about why a patient left without completing treatment or poor quality care for example when nurses misread the level of pain because Indigenous patients are not complaining. Staff are often confused not knowing whether this behaviour is associated with more general patient non-compliance, and/or resource
constraints that prevent appropriate management of these at-risk patients. At Royal Darwin Hospital a participant gave a pertinent example:

> For some staff there is a need to learn where patients come from and all the different language groups; to make an effort to build rapport early with the patient. It takes time but the process is important to build an understanding of when a patient really does need to go...one patient needed to find his missing son. He couldn’t rest and was very upset so he had to finish treatment early to go and find him. After he found his son he came back. Its this type of understanding that builds trust.

Indigenous informants and other staff related how Indigenous patients feel upset because of the way they perceive they have been treated or spoken to and how many patients have a history of, what they describe as, bad experiences or a belief that hospitals are ‘somewhere you go to die.’ While the Patient Advocate is involved in these cases if appropriate, some Indigenous patients are often reluctant to make complaints and are intimidated because, as one participant stated ‘everyone is non-Indigenous and complaints processes are not easy to access for Indigenous patients.’

Such tensions may result in a patient self-discharging or becoming violent. Staff described how sometimes after a ‘disagreement’ with medical staff, patients will leave and how staff experienced what they termed ‘abuse’, particularly in the Accident and Emergency Ward where patients may be intoxicated and in hospital following a fight or accident. Other Indigenous informants spoke of witnessing staff ‘experiencing lashing out from patients [when] other Aboriginal patients watching want to comfort the other Aboriginal patient and hit the nurse [so then they] need to get out.’

**Current management of self-discharging patients**

Staff in each of the five Territory hospitals differed in their awareness of set procedures or a written policy regarding self-discharging patients. Some claimed that they had ‘not seen a written policy it is just the way things happen.’ Another participant at Royal Darwin Hospital noted that ‘...the Hospital does have an absconding [sic] policy to protect the nurses, doctors and police. Everyone is aware of the policy as they are required to read and sign off that they understand.’ In Alice Springs participants commented that the processes to monitor and reduce self-discharge is time consuming and more staff were required to cope while in Katherine it was reported that ‘Nine times out of ten if the patient knows the discharge process has commenced they will leave before it is completed.’

Hospitals and wards also varied in the way patient’s movements were monitored. In Royal Darwin Hospital staff conduct a morning bed check and then a further bed check again around 6 pm to administer medicines. The Aboriginal Liaison Officers also check on Indigenous patients approximately three to four times during the day including outdoor areas. In Darwin staff also thought some patients were more likely to self-discharge ‘on weekends when they know the ALO is not at work.’ In Katherine Hospital
a formal discharge process for missing patients occurs at midnight while in Gove it is around 9 pm for patients who had been missing all day.

In Alice Springs experienced staff often took various factors into account before making the judgement that a patient had self-discharged and that follow-up action was needed, this could be after an absence of between four and eight hours. These factors included whether a patient had a history of frequent self-discharge, the patient’s current medical condition and how far away from the hospital the patient lived. If there was a high demand for beds a patient might be formally recorded as having self-discharged after four hours absence. However, as others mentioned this often resulted in further work because patients ‘…sometimes come back after six hours and they have to be readmitted.’ This need for flexibility in procedures and the ability to understand and even negotiate absences, including day leave, for Indigenous patients was also mentioned by participants in other hospitals and are illustrated in these comments by Tennant Creek participants.

*An Aboriginal man from Queensland was visiting his granddaughter in Tennant Creek. He was admitted to hospital in Tennant Creek and had an enlarged heart. He was admitted on the Friday but on the Saturday he left to go and watch football. Sunday he was back again. This practice of needing to socialise continued during his stay. The Aboriginal Health Worker and an interpreter sat him down and yanked. They explained to him how serious his health problems were and what was happening to his health every time he left and did not continue his medication. He now understands his problem and is a model patient. He is out of hospital now and has been well for some time.*

*We are flexible with patients who want to go to the football or for day leave and if they agree to come back at dinnertime. We can’t force people to stay and if we do that makes it more difficult. Patients will normally disappear ‘after’ hours. They are noticed as missing the next morning. Depending on their treatment or how old they are, the Night Patrol, Police or the ALO will be contacted to help find the person and bring them back. Usually they will come back if someone goes looking for them.*

Hospitals varied in their follow-up procedures for patients who had self-discharged and it was also mentioned that some non-Indigenous patients have noted on their records that they do not want relatives contacted and this request is respected. In Royal Darwin Hospital when a patient is noticed as missing the relevant Clinical Nurse Consultant will notify the Social Work Department and Aboriginal Liaison Officers will begin to search for the patient at the hospital and to contact local relatives or networks in an effort to locate them if they have left the hospital grounds. This search usually includes checking admissions history and often enables new patient information and contact details to be updated.

According to staff, all Territory hospitals also use Aboriginal Liaison Officers in this capacity, relying on their local knowledge, extended family links and networks to help manage self-discharged patients where follow-up is judged to be necessary. In Katherine, staff related how family members are often difficult to contact because they have no
phones and sometimes the next of kin lives in the 'long grass.' (a local term for homelessness). Depending on the health status of the patient, if they are critically ill or infectious or if they are a minor or have impaired mental ability the Police, the Night Patrol or the/Aboriginal Community Patrol or the local Aboriginal Medical Service or Community Clinic will be contacted to help locate the patient. Local Health Services are often also enlisted to either change bandages or provide minor treatment for self-discharged patients and to help gain the support of family members to persuade the patient to return. Occasionally more formal processes need to be set in motion. Where an acutely sick child is taken from hospital by the mother Family and Children’s Services are contacted to follow up the case. One participant in Tennant Creek recalled a distressing case when ‘a child was taken from hospital because they seemed well and the family felt it was best to be back home and the child died.’ Police have also been requested to assist, particularly if a patient has been assessed as having mental health issues and has self-discharged, or where a parent has left a sick child alone and relatives can’t be located Police are then called to try to bring the parent back to the hospital. At Gove hospital staff spoke of mothers who had accompanied sick children taking day leave to gamble and Police being called to break up the game so that the mother would return to be with their child.

Perceptions about the clinical, ethical and duty-of-care consequences of premature and self-discharge.

There was general agreement by all participants that the decision to self-discharge against medical advice is the patient’s choice and that individuals are responsible for their own health. Participants in several focus groups argued that the hospital had a secondary responsibility to communicate effectively about the illness a patient has and the need to complete the required treatment. However, there were various qualifiers to this notion. One participant questioned ‘…Why come here if you don’t follow up with medication? The more we do for people the less they do for themselves.’ Some of the other participants expressed a need for more shared responsibility:

*The Hospital needs to take responsibility for an education process about its procedures, provide a good environment, and promote healthy living. Even though there is a fear of needles because it is going under the skin the immunization rates have improved.*

*Education systems, primary and secondary, should also be giving sound information about health and hospital…There is recognition of bush medicines and cultural ways of healing. The education process needs to acknowledge and also give information about the Western health system.*

Participants were very aware of the duty of care for minors and non-competent Indigenous and non-Indigenous patients. In particular this produced tensions between staff and Indigenous parents who were reluctant to leave children in hospital or needed to discharge minors for other reasons, when staff were aware and concerned that the child would not receive medication and would be placed in a poor home environment where lack of hygiene would be detrimental to recovery.
In some areas where there are legal issues involved with duty of care procedures are more formal:

...Where the patient has impaired cognition capabilities and is at risk of putting themselves or others in danger by leaving the hospital, the hospital is responsible. This impairment is usually picked up in the Accident and Emergency Ward. The Social Work Department becomes involved and referrals made for further assessment with the Aged Care Assessment Team (ACAT). The ACAT assessment will only occur when the patient’s health status is non acute. These patients will have a Patient Care Assistant assigned to them. Before these patients are discharged a family meeting will be convened to work through the issues of patient care. Where appropriate, the Guardianship process is commenced but this can take up to 12 months. This delay creates issues with securing a bed with a nursing home (Darwin participant).

Staff suggestions for new ways to minimise and manage self-discharge

There are various strategies in place that are reducing, and assisting staff to manage, the high rates of self-discharge against medical advice. These are most effective in the small regional hospitals which are able to provide a flexible more personal individualised approach to patient care including day leave for social purposes and a preparedness to treat some of the chronically ill patients through the Emergency Department where they preferred not to be treated as an ‘inpatient.’ However, some of the common concerns expressed by staff in the smaller regional hospitals focused on high staff turn-over and the need for ongoing cross-cultural training for new staff, lack of patient transport for those living out of urban areas, lack of visibility of Indigenous staff, and the need for additional support from allied health services (social work, mental health and drug and alcohol services).

Some of the important suggestions that were consistent across the region include:

- **Aboriginal Cultural Awareness Programs (ACAP)** - need to be continued and extended with possibly a process for continual professional development in this area to go part way to addressing issues like cultural barriers and poor communication. Review the option of these courses being available on a more regular basis instead of once a year.

- **Cultural security** - Funding is necessary to properly implement a cultural security policy and procedures in hospitals. This needs to clearly indicate the behaviours and outcomes considered appropriate for staff. Establish and maintain a Cultural Safety Committee for the implementation of strategies.

- **Better health promotion and education** - about the hospital systems, policies and roles of the AHW, ALO and Patient Advocate are required. Community clinic staff and health promotions could provide information explaining what happens when people come in to hospital, what to bring with you, support structures (ALOs, patient

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*These programs educate, promote and make non-Indigenous people aware of the contribution of Indigenous people to the Northern Territory and Australia. Usually Indigenous community members advise on the appropriateness of the program content and also participate in the courses as guest lecturers.*
advocate, etc), what happens for surgery, what is expected of the escort, and emphasise to staff and patients that there is access to interpreters.

- **Community education strategy** - need to improve understanding of the Western concept of germ theory, concepts of safe surgery and why it is necessary to fast. Collaborative actions to promote health literacy. Critical for patients to have a reasonable understanding of their illness, the level of treatment that is needed, and what processes this will involve. Indigenous languages do not always have parallel constructs to match Western medical/health constructs so experts should be consulted in the development of these materials.

- **Increase the visibility and numbers of Indigenous staff employed and clarify their roles** - An increase in the number of ALOs employed with a recognised budget to run services may help to reduce the self-discharge rate. AHWs and ALOs should have shift work hours to provide continuous support. Promote careers and study for AHWs, nurses, doctors and staff in other allied health fields through the Structured Training and Employment Projects (STEP) program currently delivered through Office of the Commissioner for Public Employment OCPE, which has had limited promotion and poor employment outcomes.

- **Create a more friendly and responsive environment** - Darwin Rehabilitation Service is a best-practice model where there is flexibility to meet the needs of patients. Despite cold air-conditioning patients can go outside to do their exercises, have BBQs and are encouraged to go on shopping trips or other outings. Family and carers are included in treatments and activities such as family meetings, bush walks, therapy on the beach and bush tucker trips. In another ward at Royal Darwin Hospital a wall map above each bed indicates where patients live, their language group and some words and their meanings to help staff become more familiar with the background of patients. Other suggestions included: in-house training workshops focusing on how to build rapport and engage in a more meaningful way with Indigenous patients and introducing ‘Step down facilities’ across the regions which need not be Indigenous specific. Western Australian Health Department’s Report entitled ‘A Healthy Future for Western Australians’ includes some other strategies that are useful (March, 2004, http://www.health.wa.gov.au/hrc/index.cfm).

- **Facilitate better discharge plans** – which detail a patient’s ongoing needs more clearly for both family and the wider community. These need to involve GPs and Community Health Clinics to provide ongoing post-hospital medication or treatment. There is a need for ‘Rehab Stories’ or other stories to relate what the patient has been doing in hospital, arranging carers to help at home, provision of transport services for continued outpatient therapy, and if necessary communication with the patient, family, community and remote therapist to arrange return to hospital for further treatment. Implementation of a Project-Rehabilitation Discharge Package to offer greater flexibility in the discharge needs of the patient: service, accommodation, transport.
• **Family meetings** - should be conducted by telephone conferencing. These family meetings are critical to explain the health needs of the patient. These would usually involve ALOs, social worker, nurses, doctors and interpreters. Where possible these should be conducted in the patient’s first language which is empowering for the family and would allow for decisions to be made that are supported and understood by the family.
Discussion and findings

These findings incorporate analyses from the selective literature review, statistical data from the Health Gains Planning Branch the interviews with hospital and other health services staff. Information is reported against the six research objectives in relation to Indigenous patients. As discussed, researchers were unable to conduct interviews with a representative sample of former Northern Territory hospital patients to gauge their concerns in the way we had intended. However, interviews with both Indigenous and non-Indigenous health staff and with some other Indigenous informants have identified a range of issues that reflect directly on Indigenous patient’s diminished capability or ability to cope within the hospital environment. These include how Indigenous patients perceive hospital routines and medical treatments and at times a lack of empathy, sensitivity or indifference on the part of some staff in dealing with Indigenous clients which appear to contribute significantly to the rate of self-discharge which was eleven times more than that of non-Indigenous patients. The rate of Indigenous self-discharge peaked in the 25-29 age groups for both Indigenous males and females with young Indigenous men more likely to self-discharge. This corroborated staff perceptions that Indigenous men, often with alcohol dependency or substance abuse, were overrepresented in self-discharge separations and is also consistent with the international literature.

The Territory data also differed significantly from that reported in other studies where males are more likely than females to self-discharge. Here Indigenous females had the second highest rate of self-discharge and several factors are contributing to this. The high proportion of Indigenous women hospitalised due to assault related injury has been already been discussed and was also noted by staff as were the difficulties faced by women coming to urban hospitals for birthing. Between 2000 and 2002, 38% of all babies born in the Northern Territory were to Indigenous mothers and of these 14% had low birthweight (Stewart and Li 2005). This high birth rate sees a disproportionate number of young women hospitalised for birth and complications during pregnancy and the postnatal period. Hospital staff throughout the Territory highlighted issues associated with maternal and infant services as contributing to this high rate of self-discharge. Of particular concern is the high percentage of Indigenous children being placed at risk due to self-discharge by carers who staff believed were usually mothers. While staff acknowledged that many women and in particular mothers, had other family commitments and responsibilities which placed pressure on them to remove either themselves or their children from hospital there were also concerns expressed for women and children self-discharging and returning to violent or abusive partners or family situations and being afraid to stay too long in hospital.

Over the five year reporting period self-discharge separation accounted for 2.5% of separations from all Territory hospitals with Tennant Creek and Alice Springs Hospitals having the highest rates of self-discharge for Indigenous patients counting both number of separations and number of patients. Our data also shows that self-discharge rates were highest for Indigenous people living in the Alice Springs Town Camps and Alice Springs
Rural areas which are also locations where large numbers of Indigenous people from remote communities now live permanently or more transiently shifting between the town and their remote communities. Repeat episodes of self-discharge were common for Indigenous patients with 4,589 Indigenous people accounting for 8,206 separations in Territory hospitals and having more frequent self-discharge episodes than non-Indigenous patients. In general patients stayed in hospital an average of 5 days before making the decision to self-discharge although Indigenous patients tended to stay slightly longer than non-Indigenous patients. This reflects the complexity of care required and often the need for Indigenous patients to travel from remote communities to access hospital care and to be discharged later if follow-up care is not able to be accessed in their community. Patients who self-discharged against medical advice were more than twice as likely to be readmitted to hospital than those discharged following formal procedures (25.8% vs 12.3%) and of these self-discharge episodes the readmission rate was higher for Indigenous patients who also took longer to return to hospital (2.3 days vs 1.6 days). Considerable benefit could be attached to not only reducing the numbers self-discharging against medical advice overall but also focusing on repeat clients, to deal with them more effectively and appropriately.
Findings Reported Against Research Objectives

Objective 1
The reasons underlying patient self-discharge

Patients’ response to hospitalisation
- Lack of understanding by patients of illness and the acuteness of many chronic diseases;
- Communication and language barriers;
- Isolation, loneliness and boredom;
- Fear and distrust of hospital and medical staff;
- High expectations for the immediate effect of medications and of medical staffs’ ability to cure. When this does not occur there is no reason to stay;
- Experiencing what they might perceive as racism directed against them;
- Travel opportunities to return home that are more attractive than staying in hospital;
- Experience of alcohol or drug withdrawal symptoms.

Social and cultural issues
- Family and community obligations and responsibility particularly for mothers;
- Needing to attend to cultural obligations including funerals;
- Domestic or family violence;
- Family pressure to leave especially on pay day;
- Alcohol and substance abuse (tobacco, marijuana, petrol);
- Protection of children left in hospital without prime carers or discharged prematurely with subsequent adverse affects.

Health System failures
Drawing on staff and ex-patient interviews and literature the perceived system failures identified are:
- Hospital design and environment, e.g. air-conditioning, multistorey building;
- Operation and theatre management (delaying and rescheduling patient operations or other procedures up to four days) with prolonged or repeated fasting;
- Lack of formal coordination and partnerships with the community sector;
- High staff turnover;
- Lack of resources for allowing support staff, such as ALOs, Health Workers and interpreters to work shift work and weekends;
- Lack of resources overall, in particular Indigenous staff for hospital administration and nursing positions;
- Absence of Indigenous staff in a range of positions, including as health professionals and role models who can break down cultural barriers;
- The absence of travel assistance if the patient lives within 200 kilometres of the hospital; and lack of coordination between regular transportation system and patient appointments.
The Research Team would also include

- Poor design of services for continuity of care between primary and secondary care. For example, waiting many hours for clinic appointments prior to admission and the arrangements with remote clinics for transport of a patient to a regional hospital.

**Cultural Security**

Cultural Security is defined in the Department of Health and Community Services, *Indigenous Health and Families: A Five-Year Framework for Action*, as:

……a commitment that the construct and provision of services offered by the health system will not compromise the legitimate cultural rights, views, values and expectations of Indigenous people. It is a recognition [of]… the impact of cultural diversity on the utilisation and provision of effective clinical care…[and] ensuring that the delivery of health services is of such a quality that no one person is afforded a less favourable outcome simply because they hold a different cultural outlook.

As in all other research the continuing gap between the culture of hospitals and Western medicine and that of Indigenous peoples worldviews again emerged as an issue. Discussions at each hospital reinforced both the risks created by a lack of cultural security and the potential benefits from its introduction. In these discussions both the physical design of the hospitals and the behaviour of some staff produced cultural clashes that staff believed had an impact on self-discharge.

**Objective 2**

Determine whether this behaviour is associated with more general patient non-compliance, and/or resource constraints that prevent appropriate management of these at-risk patients

Previous research has found that patients from disadvantaged groups, those unemployed, those with low literacy levels, who speak English as an additional language or are chronically and terminally ill or live remotely from the secondary and tertiary health service providers, are often dissatisfied with their hospital experience and may be more likely to self-discharge against medical advice. The research found that these characteristics are more related to a patient’s capabilities and lack of resources to maintain medical regimes, rather than behaviour associated with deliberate non-compliance.

Those who are admitted to hospital with a dependency on alcohol or other substances or for an assault related injury including domestic violence may be non-compliant with medical treatment and self-discharge prematurely. However, such labelling is contentious and, as discussed previously, the impacts of colonisation and the subsequent marginalisation and dislocation of these people needs to be considered. Staff advised that patients presenting with alcohol related illnesses, usually self-discharged soon after the presenting conditions for hospitalisation were stabilised. Due to these short lengths of stay, hospitals can only treat the symptoms and not the cause. These patients are often
described as the ‘frequent flyers’ within the Acute Care Systems in the Northern Territory and account for 30% of all self-discharge separations.

In addition, the data from Darwin and Alice Springs also highlighted other health system weaknesses, such as a lack of Indigenous cultural understanding and the family obligations patients faced and a perceived gap in a written policy and/or the procedural follow-up requirements for identified missing patients many of whom were coded as self discharged against medical advice. For the other regional hospitals, although there was agreement that there was no written hospital policy, there was an acknowledgement of a set procedure for self-discharge separation. An important observation related to the degree of flexibility and considered assessment about how long the bed was kept available for a patient. In interviews staff spoke of the efforts made to accommodate Indigenous cultural and family responsibilities to enable a patient likely to self-discharge to extend their stay in hospital. Patients might also have several compounding reasons that result in multiple episodes of self-discharge. Details expressed about some of these reasons indicated a perception that there is a shared level of responsibility by the patient, hospital and referring clinic.

A common expression throughout the interviews was that ‘it [self-discharge] is the patient’s choice and they are responsible for their own health.’ However, this was qualified with an acknowledgement that the hospital also has a role to ensure that the patient reasonably understands the illness and the required treatments. Further, that the patient is made aware of all resources available in the hospital, like the Interpreter Service, Patient Advocacy and Aboriginal Liaison Officers. An additional theme from the interviews acknowledged that for Indigenous self-discharging patients it is ‘important to involve the family to help with explaining to the sick family member that they are sick and need treatment.’ Across all regions participants also gave a consistent reason for self-discharge when they referred to a ‘lack of understanding about illness, treatments and interventions.’ The question concerning the role of the DHCS in ‘health literacy’ across the general population requires considered reflection and potential collaborative action. All participants were conversant with the duty of care for minors, patients with impaired competency and those patients that are a potential danger either to themselves or the general public.

**Objective 3**

**The fiscal, clinical, ethical and duty-of-care consequences of premature self-discharge**

This report identifies that there is considerable room for improvement in relation to reducing rates of self-discharge particularly among Indigenous patients. Many staff suggested ways this could be achieved but acknowledged that some staff were perhaps contributing by culturally insensitive or inappropriate care and poor communication of the importance of completing hospital treatment. This is exacerbated by high staff turnover resulting in a continual influx of staff inexperienced in dealing with the high rate of Indigenous patients in Territory hospitals. There are also organisational issues that need to be addressed, as illustrated above. Although there was a slightly increased trend
for self-discharge from 2.4% in 1999 to 2.6% in 2004 the relative steadiness of the rate, which is not increasing in proportion to the actual numbers of people involved, suggests that while no progress is being made towards improvement, at least things are not going backward.

Objective 4
Assess the costs and benefits of different options for better managing this group of patients.

It was not possible to measure the potential benefits of implementing the recommended strategies because such an analysis would require the input of Indigenous patients who had discharged against medical advice. The economic analysis provided here estimates that the costs associated with self-discharge and incomplete medical treatment in the current system amount to $30 million which accounts for 4% of the total acute care costs in the Northern Territory. Based on an adjusted cost for follow-up readmission estimated at $3.8 million the estimated net saving for preventing the majority of patients self-discharging against medical advice by implementing the suggested strategies in this report could be $4.7 million over 5 years. A cost benefit analysis should be undertaken to determine accurate costs but in our opinion it would be necessary for the Department to have patient input to that analysis.

Objective 5
Identify better ways and act on recommendations to prevent and or manage inpatients who self-discharge

The over representation of Indigenous patients who discharge against medical advice in the Northern Territory suggests that the solutions for this problem can be found in large part through the implementation of a Departmental Cultural Security Policy.

In summary, the following list of strategies is recommended for consideration but in no way infers that some of the positive strategies implemented by staff in the regions should be ignored.

• Develop a Northern Territory Department of Health and Community Services Cultural Security Policy and provide reasonable funding for implementation; and

• Involve staff in the development of strategies to underpin the Cultural Security Policy.

To address the issue of self-discharge the following strategies are recommended:

• Develop sound strategies and frameworks that allow for better continuity of care across hospital and community. Consider a case management approach to ensure informed advocacy and links between and across services;
• Ensure patients accommodated in hostels awaiting admission have supports and are protected from community members or other family members who might encourage a patient to leave the hospital system earlier than required;

• Work with the communities to improve the quality and preparation of patient escorts and develop, with the community, training in hospital systems and protocols for the patient escorts;

• Identify, in partnership with the community, better and more effective health transport, in particular for patients living in communities where they are not eligible for the Patient Assisted Travel Scheme (PATS);

• Develop, in partnership with communities, strategies to better prepare patient, family and patient escort for admission, being clear on illness and severity, assumed length of stay, and role and expectations of the escort;

• Ensure patient and patient escorts have appropriate supports within the hospital and an identified point of contact other than the admissions office;

• Increase the numbers and range of languages covered by interpreters and their availability to patients and staff; and

• Make findings from this report available to the Aboriginal Health Forum for potential collaborative action around ‘health literacy’ and continuity of care for Indigenous patients from primary to secondary and tertiary health care.
Conclusion

Much of the published work fails to provide an exact definition of an incident of self-discharge. Most studies have used officially produced statistics, which have been created using a variety of criteria. Some studies include short or temporary absences, others only absences lasting 24 hours and yet others have only coded those that result in a discharge. The researchers found that the study participants also had a variety of definitions and criteria they applied when identifying a patient that chooses to leave the hospital system. These differences make comparisons difficult. A consistent definition and set of criteria need to be applied and appropriate recording and coding process needs to be developed and better articulated across the Northern Territory. The research found that patients choose to leave hospital care against the advice of health professionals for a range of reasons. This can occur either through a formal hospital discharge process, including signing an appropriate release form, or by simply walking out and not returning.

Experienced medical officers report that when patients self-discharge before their treatment is complete, and against medical advice, they are at greater risk of complication that may threaten their recovery or even lead to avoidable death. Patients, who self-discharge or ‘walk off’ wards prior to recommended discharge, in particular after surgery, are more likely to be re-admitted with severe complications which may have been avoidable with appropriate medication and follow-up. These patients are a risk not only to themselves but also for hospital administrators and health professionals, as this practice challenges their duty of care policies and ethical practices associated with the provision of responsible, safe and high quality health care. The economic analysis has also highlighted the considerable financial cost of self-discharge and the savings that could be made if it were to be reduced.

In focusing on Indigenous self-discharge and seeking to explore the specific reasons it occurs in the Northern Territory this research has provided another perspective from the point of view of hospital staff who are aware that flexible services are needed to meet the needs of Indigenous patients. They have also suggested that some services like patient transport, interpreter and liaison and maternal and infant care need to be reviewed and that at times staff need to accept that self-discharge is a rational and appropriate choice made by patients which should be respected.

Nevertheless self-discharge is a significant and increasing problem as the numbers of Indigenous people receiving acute care grow and the underlying issues of cultural security and lack of ‘health literacy’ remain only as isolated strategies implemented by a few staff across the system. The numerical data confirms the size and location of this problem; however, qualitative data, as well as confirming some of the causative factors, also provides some way forward.
14 April 2005

Ms Barbara Henry
Research Associate
Cooperative Research Centre
PO Box 41090
CASUARINA NT 0811

Dear Ms Henry

Re: 05/12 - An assessment of why patients 'self discharge' prior to completing medical treatment including an economic evaluation of strategies for better managing inpatients who self discharge prematurely

The Human Research Ethics Committee (HREC) has approved your application for Phase One of the above project.

The safe and ethical conduct of this project is entirely the responsibility of the investigators and their institution(s). As a condition of ethical approval you should report immediately anything which might affect continuing ethical acceptance of the project, including adverse effects of the project on subjects and the steps taken to deal with these, other unforeseen events, or new information that may invalidate the ethical integrity of the study.

This approval is for twelve months. A progress report is required before the end of this period. Approval for a further twelve months will be granted if the HREC is satisfied that the conduct of the project has been consistent with the original protocol.

The Committee must be notified and approve in advance any significant changes to the protocol. The Committee must also be notified at the completion of the project.

Yours sincerely

[Signature]

Dr Shelley Walton
Chair, Fast Track Committee
Human Research Ethics Committee
of NT Dept of Health & Community Services
and Menzies School of Health Research
### Table 14: Distribution of Self-discharged Episode by Indigenous Status, NT Public Hospitals 1999/00-2003/04

<table>
<thead>
<tr>
<th>Frequency of Self-discharge</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
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<td></td>
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<td>Non-Indigenous</td>
</tr>
<tr>
<td>1</td>
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</tr>
<tr>
<td>2</td>
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</tr>
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<td><strong>Total</strong></td>
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Table 15: Self-discharge Rate by Indigenous Status and Hospitals, NT Public Hospitals 1999/00-2003/04

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<tr>
<th></th>
<th>ASH</th>
<th>RDH</th>
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<tr>
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<td>00/01</td>
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<tr>
<td>03/04</td>
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<tr>
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Table 16: Top 10 Longest LOS Compared to the National Average LOS

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<th>sum(one)</th>
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<td>STROKE + SEVERE/COMPL DX/PROC</td>
</tr>
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<td>W02Z</td>
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<td>2</td>
<td>HIP, FEMR &amp; LIMB PR MULT SIG TRMA</td>
</tr>
<tr>
<td>I08A</td>
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<td>OTHER HIP &amp; FEMUR PROC + CSCC</td>
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<td>P03Z</td>
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<td>NEO, ADMWT 1000-1499G+SIG OR PR</td>
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<tr>
<td>U61B</td>
<td>26.06</td>
<td>2</td>
<td>SCHIZOPHRENIA DISORDERS-MHLS</td>
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<tr>
<td>I12A</td>
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<td>4</td>
<td>INFC/INFM BONE/JNT+MISC PR+CSCC</td>
</tr>
<tr>
<td>F11B</td>
<td>24.96</td>
<td>1</td>
<td>AMPUTN CIRC SYS-UP LMB&amp;TOE-CCC</td>
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<tr>
<td>I07Z</td>
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<td>AMPUTATION</td>
</tr>
<tr>
<td>G12A</td>
<td>21.83</td>
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<td>OTH DIGEST SYS OR PR+CSCC/+MAL</td>
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<tr>
<td>K01Z</td>
<td>21.38</td>
<td>16</td>
<td>DIABETIC FOOT</td>
</tr>
<tr>
<td>Non-Indigenous</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J60A</td>
<td>34.68</td>
<td>1</td>
<td>SKIN ULCERS A&gt;64</td>
</tr>
<tr>
<td>K61Z</td>
<td>29.88</td>
<td>1</td>
<td>SEVERE NUTRITIONAL DISTURBANCE</td>
</tr>
<tr>
<td>U61B</td>
<td>25.87</td>
<td>9</td>
<td>SCHIZOPHRENIA DISORDERS-MHLS</td>
</tr>
<tr>
<td>T01A</td>
<td>21.46</td>
<td>1</td>
<td>OR PROC INFECT &amp; PARAS DIS+CSCC</td>
</tr>
<tr>
<td>L61Z</td>
<td>16.01</td>
<td>2</td>
<td>ADMIT FOR RENAL DIALYSIS</td>
</tr>
<tr>
<td>B70A</td>
<td>14.88</td>
<td>1</td>
<td>STROKE + SEVERE/COMPL DX/PROC</td>
</tr>
<tr>
<td>K01Z</td>
<td>14.57</td>
<td>1</td>
<td>DIABETIC FOOT</td>
</tr>
<tr>
<td>B63Z</td>
<td>14.36</td>
<td>1</td>
<td>DMINTIA&amp;CHRNIC DISTURB CRBRL FN</td>
</tr>
<tr>
<td>J08B</td>
<td>14.16</td>
<td>1</td>
<td>OTH SKN GRF&amp;/DBDMNT PR-CSCC</td>
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<tr>
<td>X05Z</td>
<td>12.29</td>
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<td>OTHER PR FOR INJURIES TO HAND</td>
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Table 17: Top 10 Most Frequent DRGs of LOS Longer Than the National Average LOS

<table>
<thead>
<tr>
<th>DRG</th>
<th>mean(diff)</th>
<th>sum(one)</th>
<th>Description</th>
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<tbody>
<tr>
<td>Indigenous</td>
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<tr>
<td>E62C</td>
<td>-1.75</td>
<td>327</td>
<td>RESPIRATORY INFECTN/INFLAM-CC</td>
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<td>RESPIRATRY INFECTN/INFLAM+SMCC</td>
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<tr>
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<td>299</td>
<td>CELLULITIS A&gt;59 /A&lt;60</td>
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<tr>
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<td>INJURIES A&lt;65</td>
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<tr>
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<td>OTH FCTR INF HEALTH STAT A&lt;80</td>
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<td>101</td>
<td>SEIZURE A&gt;2 /CSCC</td>
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<td>75</td>
<td>RESPIRATRY INFECTN/INFLAM+CCC</td>
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<td>E65A</td>
<td>-5.36</td>
<td>73</td>
<td>CHRNIC OBSTRCT AIRWAY DIS+CSCC</td>
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<tr>
<td>Non-Indigenous</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>J64B</td>
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<td>39</td>
<td>CELLULITIS A&gt;59 /A&lt;60</td>
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<td>F74Z</td>
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<td>25</td>
<td>CHEST PAIN</td>
</tr>
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<td>X62B</td>
<td>-0.95</td>
<td>21</td>
<td>POISNG/TOXC EFF DRUGS A&lt;60 -CC</td>
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<tr>
<td>X60C</td>
<td>-0.98</td>
<td>15</td>
<td>INJURIES A&lt;65</td>
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<td>G66B</td>
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<td>ABDMNL PAIN/MESENTRC ADENTS-CC</td>
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<td>F62B</td>
<td>-3.15</td>
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<td>HEART FAILURE &amp; SHOCK / CCC</td>
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<tr>
<td>Z64B</td>
<td>-1.64</td>
<td>8</td>
<td>OTH FCTR INF HEALTH STAT A&lt;80</td>
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</table>
References


National Aboriginal and Torres Strait Islander Health Council (2001). *National Aboriginal and Torres Strait Islander Health Consultation 'Culture and History - Draft for Discussion.'* Canberra.


Scott, T. (2001). Implementing Consumer Feedback into a Continuous Quality Improvement Framework at Alice Springs Hospital, Consumer and Provider Partnerships (CAPPS) in Health Project.


