

# Renal Services Plan 2007-2011

August 2007



**HNE Health - Renal Services Plan 2007-2017**

**August 2007**

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# 1. EXECUTIVE SUMMARY

## Background

The Hunter New England (HNE) Renal Services Plan 2007-2011 has been developed in the context of an amalgamation of the Lower Mid North Coast, New England and Hunter Health Services, and, sets the direction and priorities for renal services over the next five years.

The development of the HNE Renal Services Plan 2007-2011 was identified as a priority by HNE Health with the growth in kidney disease a major health issue. With the increasing prevalence of kidney disease, particularly amongst Aboriginal, elderly and co-morbid population groups, there is a need to consider the direction of renal services across Hunter New England. It is estimated that there will be significant growth in demand for renal dialysis and transplantation services. In 2005, 6% of people with end stage kidney disease received renal transplantation with the remainder being treated with renal dialysis.<sup>1</sup> In addition, treatment changes have occurred within services (e.g. Plasmapheresis) which were also considered within the Renal Services plan.

## Policy Directions

National and State policy directions emphasize the need to prevent and/or delay the onset of chronic health conditions for individuals and population groups and improve the quality of life for people with chronic disease and their carers.<sup>2,3</sup> Health services need to reduce avoidable hospital admissions and procedures, and implement best practice in the prevention, detection and management of chronic diseases including kidney disease.<sup>2,3</sup>

A key policy initiative is to improve access to, and the range of services available to address the needs of Aboriginal people in rural and remote communities, including access to renal dialysis and transplantation services<sup>4,5,6</sup>.

There is recognition that health services need to maximise patient self-management and independence including providing opportunities for home and self-care dialysis treatment models<sup>6</sup> and renal transplantation services. In line with patient self determination greater emphasis will be placed upon providing education and support for patients and staff to implement the Advance Care Plan program.

The HNE Renal Services Plan is aligned to the NSW and National health directions. The HNE Plan has adopted the NSW Health key principles for Renal Dialysis services and has recognised the need to focus priorities in support of home dialysis programs, rural and remote health needs and on Aboriginal and co-morbid population groups. In addition the HNE Renal Services Plan has incorporated the use of KPIs identified in the NSW Health Draft Renal Dialysis Services planning documents.

## Key Issues

Key health issues identified in the plan include:

- The growing incidence of people with end stage kidney (renal) disease and the need to focus resources on providing dialysis services;
- Need to support the identification and management of people with chronic kidney disease;
- Patients access to renal dialysis services particularly the location of services and transport options available;
- Renal Transplantation Services need for an increase in live donor and deceased donor programs;

Key services issues identified in the plan include:

- Development of the renal clinical service stream and specialty programs such as Renal Transplantation and Plasmapheresis,
- Maximising opportunities for collaboration in the development of education and training programs, kidney health promotion and prevention activities,
- Agreed clinical standards for staffing levels, water and plant management, clinical practice and best practice models of care;
- Workforce issues including succession planning for nephrologists and senior nursing staff, and, recruitment and retention issues particularly for more isolated rural areas;
- The changing direction of service models e.g. need for enhanced outreach services for home dialysis, satellite hospital services, renal transplantation and vascular access services.

### **Key Directions**

The key directions for HNE Renal Services over the next five years are:

- Integration of Renal Clinical Services across HNE Health through the development of the Renal Clinical Stream;
- Consolidation of established service models in Renal Transplantation, Renal Dialysis Services, Plasmapheresis Services and Technical Services;
- Development of an improved model for early intervention for people with chronic kidney disease, including referral pathways involving general practitioners, specialist services, and education and research;
- Expansion of home-based dialysis and other self-care service options;
- Collaboration with HNE Health and State initiatives to develop evidenced based strategies to prevent chronic kidney disease through
  - i. Providing input to the development of the State Chronic Kidney Disease Plan,
  - ii. Supporting development and implementation of the HNE Health Chronic Diseases Plan and the Aboriginal Health Plan.
  - iii. Developing networks with relevant clinical services e.g. chronic care, Aboriginal Medical Services and non government organizations.

In the first instance, the Renal Clinical Stream will need to develop short term strategies to implement the plan through its annual operational planning process. Key strategies to be addressed include:

- Developing and implementing standardised policies and procedures and data collection systems,
- Develop a framework for identifying and meeting the needs for growth including consideration of existing service infrastructure, transport needs etc.,
- Developing an Area Price Per Treatment (PPT) Program,
- Exploring a model for the Hunter Renal Resource Centre to develop education and training programs across the area,
- Establishing transport needs assessment processes,
- Collaborating with relevant services to ensure the availability of a Regional Vascular Access Program.

## 2. INTRODUCTION AND BACKGROUND

### Overview to Plan Development

The development of the Hunter New England (HNE) Renal Services Plan was identified as a priority in 2006. The Plan provides direction for the development of effective and appropriate renal services over the next five years.

Due to historical and regional differences Renal services across the Area have developed separate clinical processes and structures. Service providers began working co-operatively to address those differences and enhance service provision with the establishment of the Northern Nephrology and Renal Transplantation Network a decade ago. The development of an over-arching Renal Services Plan will further enhance integrated renal service provision across the Hunter New England Area.

### 2.1 Renal Services Planning Group

A Renal Services Planning Group was established and was responsible for overseeing the development of the HNE Renal Services Plan 2007 – 2011 (Appendix One: - Renal Planning Group membership). A Plan Development Team led the development of the plan:

- Executive Sponsor, Michael Di Rienzo, Director of Operations Acute Networks
- Plan Leader, Sally Bristow, Renal Manager, Northern
- Plan Leader, Sally Milson-Hawke, Nurse Manager, Community Dialysis Services
- Planning Officer, Matt Dougherty

### 2.2 Scope of Renal Services Plan

The scope for the Renal Services Plan is ‘the care of adults with kidney disease’ with a primary focus upon:

- Primary kidney disease detection and prevention
- Chronic kidney disease identification and management
  - Pre-dialysis education and management
- End stage kidney disease
  - Renal dialysis services
  - Renal transplantation services
  - Palliative care
  - Dialysis Access Surgery
- General Nephrology including:
  - Care of people with specific co-morbid illness
  - Investigative diagnostic services
- Plasmapheresis

### 2.3 Key Stakeholders

Key internal and external stakeholders were consulted during the development of the Renal Services Plan. (See Appendix Two for more details).

### 3. HNE HEALTH RENAL SERVICES - OVERVIEW

Hunter New England (HNE) Renal Services provide comprehensive secondary and tertiary services in relation to the diagnosis, investigation and management of adults with renal disease. Renal dialysis is provided across multiple sites and settings. John Hunter Hospital and Tamworth Rural Referral Hospital are the primary referral sites for acute dialysis services and in-centre dialysis services across the Area. Satellite dialysis facilities are located at Armidale, Charlestown, Inverell, Maitland, Muswellbrook, Moree, Singleton, and Taree. The home haemodialysis and peritoneal dialysis training unit is located at Charlestown with peritoneal dialysis training also occurring at Tamworth. There are outpatient renal clinics available at John Hunter, Singleton, Taree, Tamworth, Armidale, Inverell and Moree hospitals. In addition, sixteen specialist inpatient Nephrology beds are located at John Hunter Hospital.

Transplant services are also based at John Hunter Hospital under the Division of Surgery. Additionally, the Nephrology Department, John Hunter Hospital, provides plasmapheresis services for the southern part of the area and the intensive care unit at Tamworth Rural Referral Hospital provides this service in the northern part of the area. As part of the Northern Nephrology and Renal Transplantation Network a close clinical relationship has developed with the renal services based outside HNE Health at Port Macquarie serving the Port Macquarie, Kempsey and Wauchope area. The Department of Nephrology and the Transplant Unit at John Hunter Hospital provide tertiary services and a significant amount of on-site support to the Port Macquarie area.

Over the next five years HNE Renal Services will require continual expansion to accommodate predicted growth in the End Stage Renal Disease (ESRD) population. Most of the growth will be in the Aboriginal, elderly and co-morbid populations (including high risk ethnic communities) who are not able to achieve independent dialysis. An ageing nursing and medical workforce will, within the next five years, become a significant problem requiring a comprehensive recruitment strategy. Priorities from the NSW Health, NSW Renal Planning Working Group will also impact on the structure and provision of HNE Renal Services. Despite these foreseeable changes, the renal services philosophy will continue to encompass preventative, curative, educative, supportive and palliative measures.

#### 3.1 HNE Health Current Service Provision

- As of the 28 February 2006:
  - 356 patients had End Stage Kidney Failure (ESKF) and required maintenance dialysis. (Centre Records),
  - Those who undertook peritoneal dialysis were required to undertake treatment regimes either four times a day, or for a ten-hour period over night.
  - Those who undertook haemodialysis were mainly required to undertake treatment three times a week. Haemodialysis treatments varied from four to seven hours duration. Patients who undertook home haemodialysis required daily or alternate day dialysis.
  - 207 patients (58%) were required to travel to a dialysis unit to undertake their haemodialysis treatment three times a week (Centre Records – unit based records collated as part of an audit process).
  - A further 149 patients (42%) undertook dialysis in their home and were required to attend a dialysis unit intermittently (Centre Records).

- Funding had been secured for 28 Renal Transplants to be undertaken per year (16 live donor and 12 deceased donor transplants).
- Provision of Acute Renal Failure dialysis also impacted upon service provision. Activity had increased from 4.5 treatments/week at JHH in 2001 to 8.9 in 2006.
- Plasmapheresis Service activity also increased in 2005/06 due to demand from Neurology and Transplantation Services. This increase in service provision occurred directly in response to the implementation of Antibody Mediated Rejection protocols for transplantations at JHH.

### 3.2 Area Renal Clinical Stream

HNE Health is introducing Area Clinical Networks to improve coordination of service delivery and build staff capacity across the area to ensure equitable provision of high quality, clinically effective care. Area Clinical Networks link groups of health professionals from primary, secondary and tertiary care across the area to work together in a coordinated manner. These networks shift the emphasis from separate institutions to a system of integrated care for the consumer.

Each Clinical Network will consist of two or more area-wide clinical streams. HNE Health Renal Services will be developed as a clinical stream. As Renal Services establish their identity as an area clinical stream consideration will be given to aligning the stream with other services to form a clinical network. Activities will involve clinicians, managers, clinicians from other clinical networks, external partners and consumer/community involvement.

The roles and responsibilities of a clinical stream include:

- Coordinating the development, review and use of appropriate clinical practice guidelines across relevant services.
- Enhancing peer support and professional training and education for staff.
- Facilitating the provision of information for service providers and consumers and their families to support access to appropriate care.
- Enhancing service delivery through facilitation of integrated models of care.
- Collecting, analysing and evaluating data in relation to service delivery and outcomes.
- Promoting and using the quality framework (safe, effective, accessible, efficient, appropriateness) in all activities.
- Developing, implementing and monitoring of clinical service plans.
- Developing recommendations and facilitation of activities in relation to the retention, recruitment, succession of staff.
- Developing recommendations for resource prioritisation and allocation
- Developing recommendations to Area Executive and others as appropriate on service delivery and planning priorities.
- Facilitating strong relationships across facilities, services, Area Clinical Networks and external partners to support service delivery.

The establishment of the Renal Clinical Stream across the area will enable HNE Health staff to benefit from:

- The establishment of a group of senior clinicians from across the area to provide clinical expertise for renal services and to build an integrated approach to service delivery and continuous improvement.
- A point of contact for renal services with an identified clinical leader and management/coordination support .
- A forum for clinical staff, Executive and others to raise issues.

- Identification of and the strengthening of linkages with other clinical services, and external providers.
- A group to lead the development of an agreed plan of activities for renal services including responsibility for the implementation and monitoring of the Renal Services Plan.

## 4. POLICY CONTEXT

### 4.1 National Directions

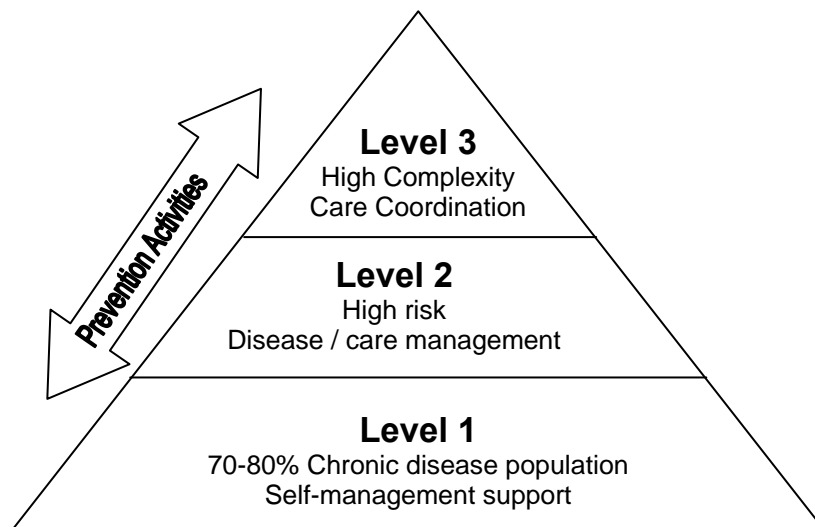
The Commonwealth has developed the National Chronic Diseases Strategy (NCDS) that aims to provide a consistent and co-ordinated approach to the management of preventable diseases across Australia.<sup>2</sup>

The primary objectives of NCDS are to:

- Prevent and/or delay the onset of chronic disease for individuals and population groups,
- Reduce the progression and complications of chronic disease,
- Maximise the wellbeing and quality of life of individuals living with chronic disease and their families and carers,
- Reduce avoidable hospital admissions and health care procedures,
- Implement best practice in the prevention, detection and management of chronic disease,
- Enhance the capacity of the health workforce to meet population demand for chronic disease prevention and care into the future.

Within the framework there is a focus on self-management for people with chronic disease.

**Figure 1 . Levels of Health Care for People with Chronic Disease**



**Other documents include:**

*National Service Guidelines for the management of Dialysis and Kidney transplantation in Remote Australia*<sup>7</sup>

The aim of the standards document is to improve access to and choice of services, reduce inequalities and enhance the quality of dialysis and transplantation services available for Aboriginal Australians residing in remote and rural areas. The standards cover four areas of clinical service provision:

- Chronic disease management,
- Access to haemodialysis treatments,
- Access to peritoneal dialysis treatments,
- Optimize access to an outcomes for renal transplants.

*Caring For Australasians With Renal Impairment (CARI Guidelines)*<sup>8</sup>

Nationally agreed clinical guidelines are available which provide national benchmarks for important aspects of renal service delivery (eg. standards relating to dialysis in rural/remote settings).

**4.2 State Directions**

NSW Health reference documents that relate to renal health services include:

- NSW Health Statement of Strategic Direction 2006-2010<sup>9</sup>,
- NSW Aboriginal Chronic Conditions –Area Health Service Standards (2005)<sup>4</sup>,
- NSW Rural Health Plan (2002)<sup>10</sup>,
- NSW Chronic Care Program: Phase Two 2003-2006<sup>11</sup>,
- NSW Chronic Disease Strategy, Phase Three 2006-2009<sup>3</sup>
- NSW Renal Dialysis Plan to 2011 (Draft June 2006)<sup>6</sup>.
- NSW Health, Health Facility Guidelines, Renal Health Unit<sup>12</sup>

There are also broader state directions that are relevant for developing appropriate renal health services including the Ethnic Affairs Priorities Statement (EAPS) and Aboriginal Health Impact Statement.

NSW Health Statement of Strategic Direction 2006-2010<sup>9</sup>

To support a shift to a broader focus on health and wellbeing, NSW Health will pursue seven strategic directions:

- Make prevention everybody's business
- Create better experiences for people using health services
- Strengthen primary health and continuing care in the community
- Build regional and other partnerships for health
- Make smart choices about the costs and benefits of health and health support services
- Build a sustainable health workforce
- Be ready for new risks and opportunities
- 

NSW Aboriginal Chronic Conditions Area Health Service Standards<sup>4</sup>

These standards relate to the treatment and management of cardiovascular disease, diabetes, renal disease, chronic respiratory disease and cancer. They aim to improve health outcomes for Aboriginal people and incorporate the principles of:

- Self management and self determination of Aboriginal people,
- Promoting Aboriginal community participation,
- Placing individuals and community at the centre of care,
- Emphasising a primary health care approach,

- Fostering an integrated, coordinated approach across the continuum of care,
- Fostering a multi-disciplinary care.

*NSW Rural Health Plan* <sup>10</sup>

This plan defines issues that are important for the provision of care for rural and remote populations, including providing services closer to people's homes and providing a sustainable and skilled workforce for current and future service provision.

*NSW Chronic Disease Program Phase Two 2003-2006* <sup>11</sup>

This program emphasises the need for initiatives to actively involve patients and their carers, community and hospital based clinicians, general practitioners and other health care providers. It recognises that improved health outcomes for people with chronic disease will only be achieved if there is integration and coordination between a patient centered approach, a positive policy environment, initiatives for enhanced health system organisation and community resources and services.

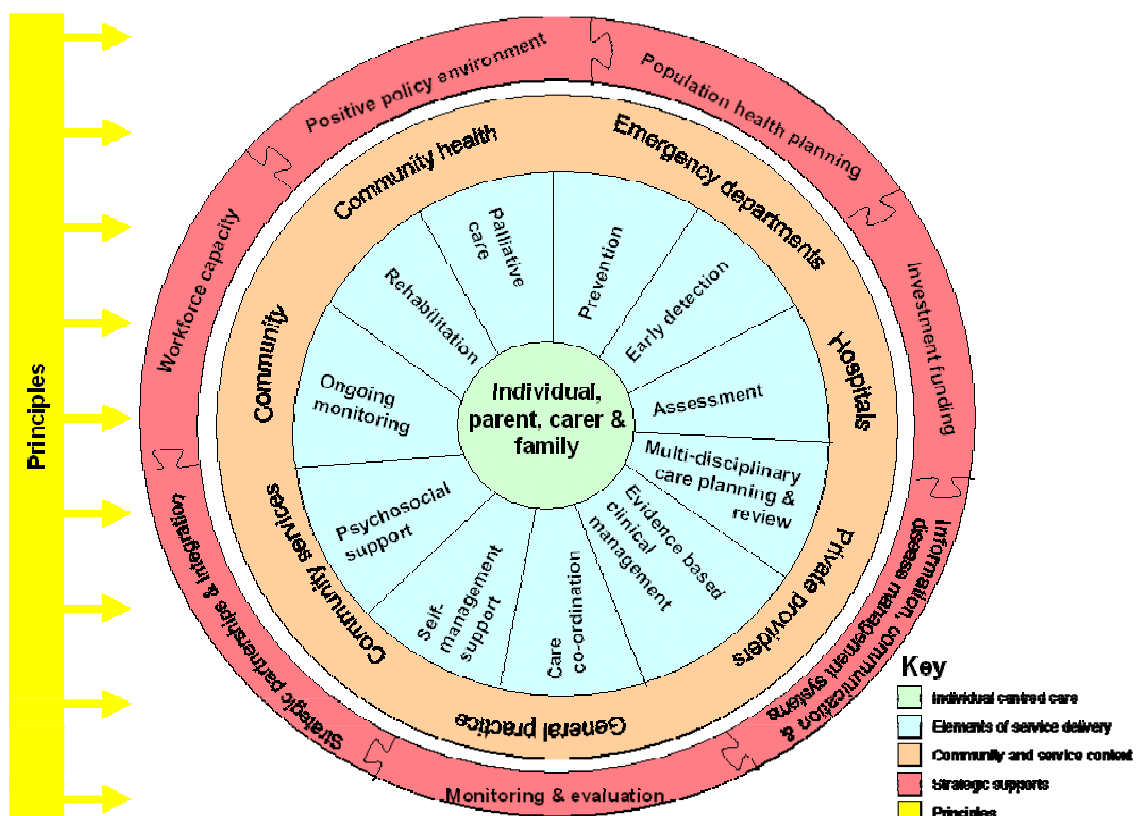
*NSW Chronic Disease Strategy Phase Three 2006 –2009* <sup>3</sup>

The NSW Chronic Disease Strategy, Phase Three 2006-2009 aims to:

- Reduce avoidable hospital admissions for chronic disease,
- Improve quality of life for people with chronic disease and their carers,
- Improve the capacity of the NSW health system to provide high quality care for people with chronic disease,
- Reduce the impact of chronic disease on the community.

The NSW Chronic Disease Strategic Framework describes the strategic supports, health care settings and elements of service delivery that together form a foundation for best practice chronic care in NSW.

**Figure 2: NSW Chronic Disease Strategic Framework**



*NSW Renal Dialysis Plan to 2011*<sup>6</sup>

This plan gives consideration to the demand for, and issues related to, the future of renal dialysis services. The Plan encompasses all the elements of renal dialysis service delivery and issues likely to affect future provision of services. The Plan does not include specific sections dealing with the treatment of acute renal failure and transplantation.

The NSW Renal Dialysis Plan to 2011 identifies key principles for the management of people with chronic kidney disease. The principles have been developed based on the NSW Health Chronic Care Program, and in collaboration with the NSW Renal Services Network.

*Key Principles*

The key principles for the management of people with chronic kidney disease are as follows:

- Integrated primary screening for patients at high risk of developing chronic kidney disease for early identification, assessment and treatment should be promoted.
- Integrated secondary prevention programs for chronic kidney disease are required.
- Patients with a diagnosis of chronic kidney disease need to receive timely, appropriate investigation, information, treatment and follow-up.
- Patients with progressive chronic kidney disease should receive appropriate education, preparation for end stage kidney failure, and treatment in partnership with an appropriate range of health care professionals.
- Patients with chronic kidney disease requiring treatment should have timely access to appropriate vascular access services.
- Patients with chronic kidney disease requiring treatment should have access to clinically appropriate forms of treatment either in home, community or hospital facilities, designed around the individual patient needs, including transplantation services, where clinically appropriate.
- Patients with chronic kidney disease should receive high quality, evidence-based (if available) treatment services.
- Patients with chronic kidney disease should receive timely and appropriate information on end of life options and choices.
- Patients with chronic kidney disease at risk, or suffering acute renal failure, should have access to high quality hospital services, in partnership with renal services.
- Patients with chronic kidney disease should receive holistic care provided by multidisciplinary teams.

These principles provide direction for the development of the HNE Renal Services Plan.

### 4.3 HNE Health Directions

HNE Health has a number of planning frameworks that have been reviewed in the development of the HNE Renal Services Plan.

*HNE Health Care Services Plan 2006-2010*<sup>13</sup>– and the *2006-2010 Area Strategic Plan August 2006*<sup>14</sup>

The Strategic Plan presents HNE Health's vision, purpose and values and strategic directions for health services. The Area Healthcare Services plan provides an overview of clinical service directions that support renal service directions over the coming five years.

*HNE Health Chronic Disease Plan 2006-2010*<sup>15</sup>

The principles underpinning the HNE Health Chronic Diseases Plan are consistent with the principles of the National Chronic Disease Strategy and NSW Chronic Disease Strategy. They include:

- Adopting a population approach and reduce health disadvantage,
- Prioritising health promotion and illness prevention,
- Achieving person-centered care and optimise self-management,
- Providing the most effective care,
- Facilitating coordinated and integrated multi-disciplinary care across services, settings and sectors,
- Achieving significant and sustainable change,
- Monitoring and evaluating progress.

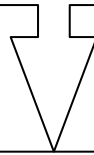
Elements of chronic disease management identified as priorities include:

- Prevention of disease,
- Promotion and facilitation of self-management strategies,
- Models of care that improve psychological support, ongoing monitoring and coordination of care, and
- Palliative care.

The NSW Chronic Disease Strategic Framework<sup>3</sup> (see Figure 2, page 12) has been adopted by HNE Health. HNE Renal Services Plan considered this framework in the planning process to ensure best practice chronic renal care is provided across the Hunter New England area.

***Key Considerations***

- National and State strategic directions emphasise a continuum of approaches from promotion and prevention to treatment and management across chronic disease services
- Effective links are required with primary care providers such as general practitioners general hospitals and community health population health
- Increased home dialysis and patient self care management approaches should be fostered



***Strategic Directions***

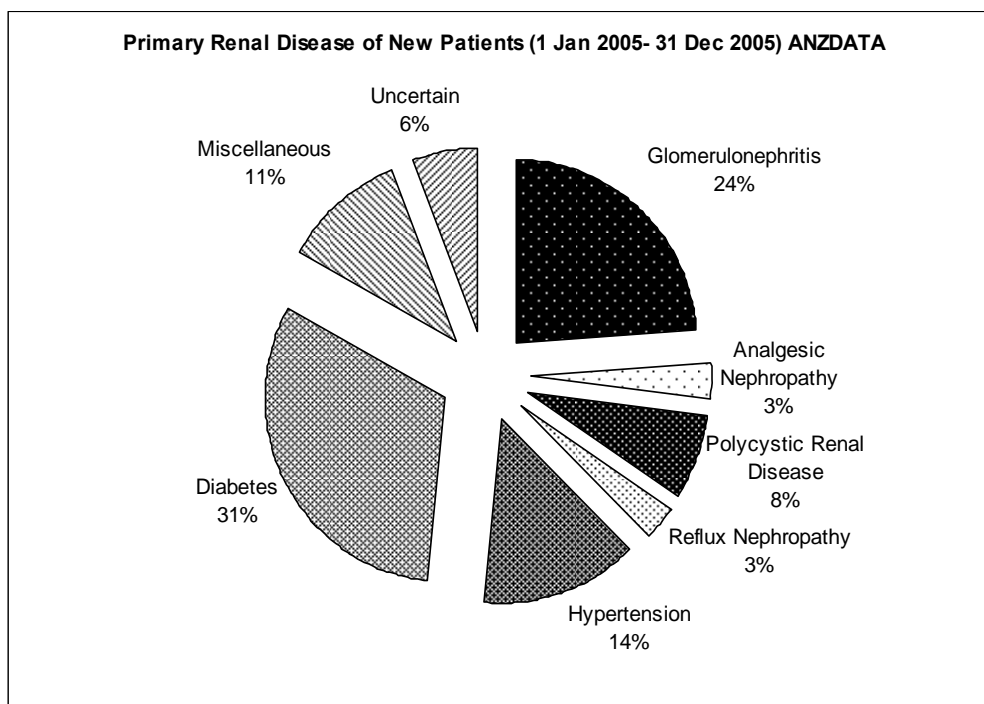
- Maximizing community based care and patient self-management
- Reduced health disadvantage and improved equity of access, including Aboriginal people
- Collaboration with partners to achieve integrated care
- Enhanced community support for health promotion, kidney disease prevention and early intervention

## 5. IMPACT OF KIDNEY DISEASE

### 5.1 The National Picture

Kidney disease is associated with a number of chronic health conditions that have preventable causes. The onset of kidney disease may be acute or have a long-term chronic progress. The association between kidney disease and other chronic conditions is still not fully understood, with recent Australian data demonstrating an increasing association between diabetes and kidney disease. See Figure 3.

**Figure 3: Primary Disease of New Renal Patients**



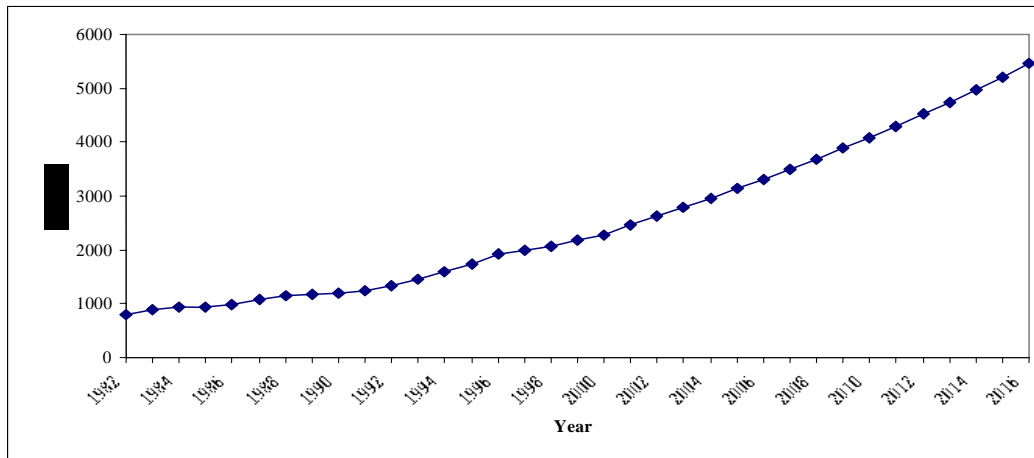
Source: ANZDATA Registry 2006. Source: NSW Health Draft State Renal Dialysis Plan <sup>6</sup>

### 5.2 The State of Play in NSW

#### *Demand for Renal Dialysis*

In New South Wales the increase in demand for dialysis services averaged 5.9% annually over the five years to 1999<sup>16</sup> (NSW Health, Review of Renal Dialysis Services 2001). Currently the incidence in the elderly is increasing at 14% per year in the 65-74 year age group and 26% for the 75-84 age group. By 2011, the projected prevalence of dialysis patients in the Hunter New England area will be 554 compared to 433 in 2006. (Based on model developed by the Health Services Research Group 2004 - see Table 4, page 18). The overall growth rate is estimated to be 5.2% per annum. <sup>6</sup>

**Figure 4: Prevalence of Patients on Dialysis: 1982-2001 (actual), 2002-2016 (projected)**



Source: NSW Health, Draft Renal Dialysis Plan to 2011

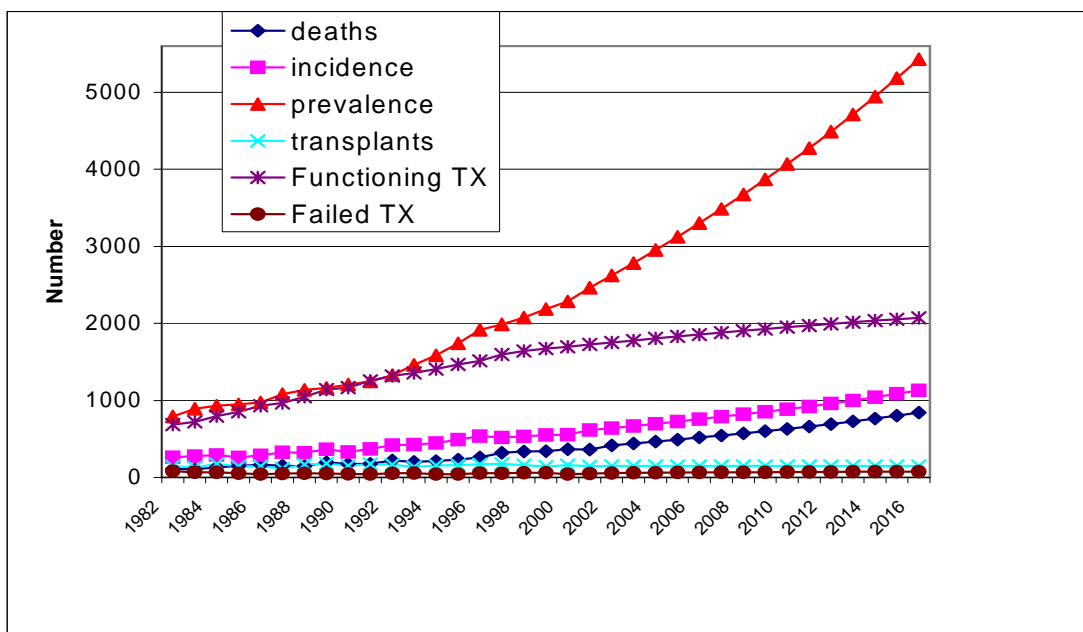
*Impacts on the Demand for Renal Dialysis in NSW to 2016*

In 2003, The renal dialysis projections paper was commissioned as part of the joint planning process undertaken by Renal Clinicians, Statewide Services Development Branch, the Rural Renal Clinical Advisory Group and Area Health Service (AHS) Chief Executives, that led to the development of the NSW Renal Dialysis Service Plan to 2011.<sup>16</sup> They determined the components that contribute to growth in the prevalence of ESKD were:

- population growth
- time to approach an equilibrium state
- the change in the incidence of new cases
- the transplant rate and the changing mortality rates;

Figure 5 below presents projected trends of relatively stable mortality and transplant rates with increasing population growth and incidence rates. These factors will lead to a growth in the demand for renal dialysis services over time.

**Figure 5: Summary of key components impacting on prevalence of dialysis in NSW**



Source: NSW Health, Draft Renal Dialysis Plan to 2011

**Table 1: Components Relating to the Change in Dialysis Demand in NSW**

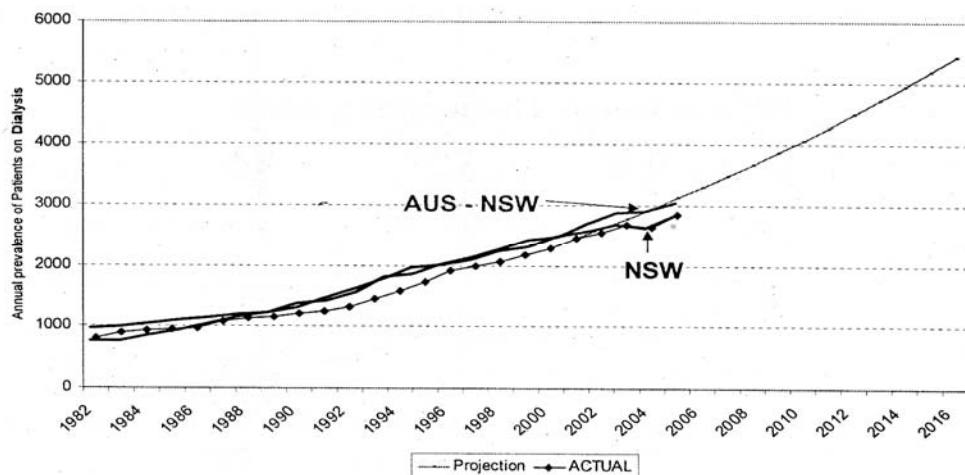
<b>Number at the start of the year</b>	<b>343</b>
+ Number of new patients added during the year	94
+ Number of patients with failed transplants returning to dialysis	4
<b>Subtotal</b>	<b>441</b>
- Number of deaths during the year	53
- Number of transplants during the year	22
<b><u>Final number of dialysis at the end of the year</u></b>	<b><u>366</u></b>

ANZDATA for NSW 1998-2003, Source NSW Health Draft Renal Dialysis Plan to 2011

Table 1 presents the ratios per million of the NSW population of people accepted, treated and dying after treatment for end stage kidney failure. These NSW figures demonstrate that while the overall number of people on dialysis increased by only 23 people per million per annum (Number at the end of the year -366 per million, minus number at the start of the year, 343 per million), the actual number of new patients commencing dialysis and surviving >90 days (to contribute to ANZDATA) is 94 per million. So, while overall totals increase at a steady rate, the number of new patients requiring dialysis in any one year and overall patient flow within the system is significant.

Recent figures from ANZDATA identifying actual renal dialysis prevalence rates show that the prevalence rate in NSW has fallen below the projection over the last 3 years, while the rest of Australia has followed the projection closely.

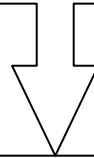
Figure 6 illustrates the difference between the actual NSW prevalence rates and the projected estimates. In 2005 there were 277 less actual dialysis patients than projected. While it is difficult to interpret trends in data over a small number of years, there appears to be a drop in actual dialysis figures, which may prove to be significant over a longer period of time.

**Figure 6: Actual versus Projected Numbers of Dialysis Patients for NSW**

Source: ANZDATA Registry (2006)<sup>1</sup>

**Key Considerations**

- Increased prevalence of chronic kidney disease in community and growth in demand for renal dialysis for end stage renal disease;
- Risks factors associated with kidney disease include, age, Aboriginality, some Cultural and Linguistically Diverse backgrounds, people with diabetes, cardiovascular disease, smoking and obesity.



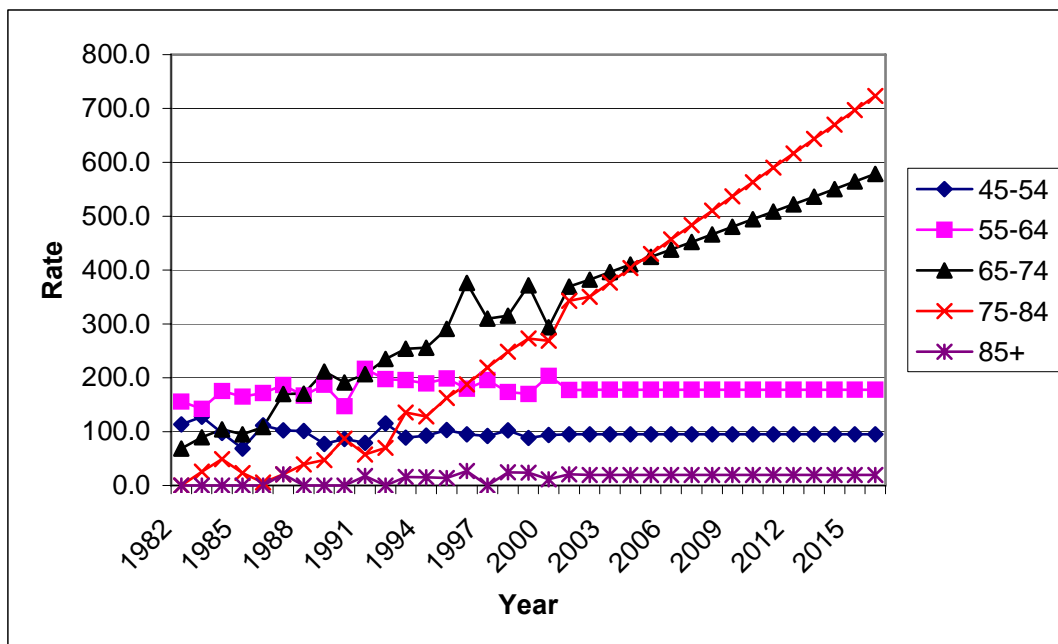
**Strategic Directions**

- Reduced health disadvantage and improved equity of access to services, including Aboriginal people;
- Enhanced community support for health promotion, kidney disease prevention and early intervention

**Older People**

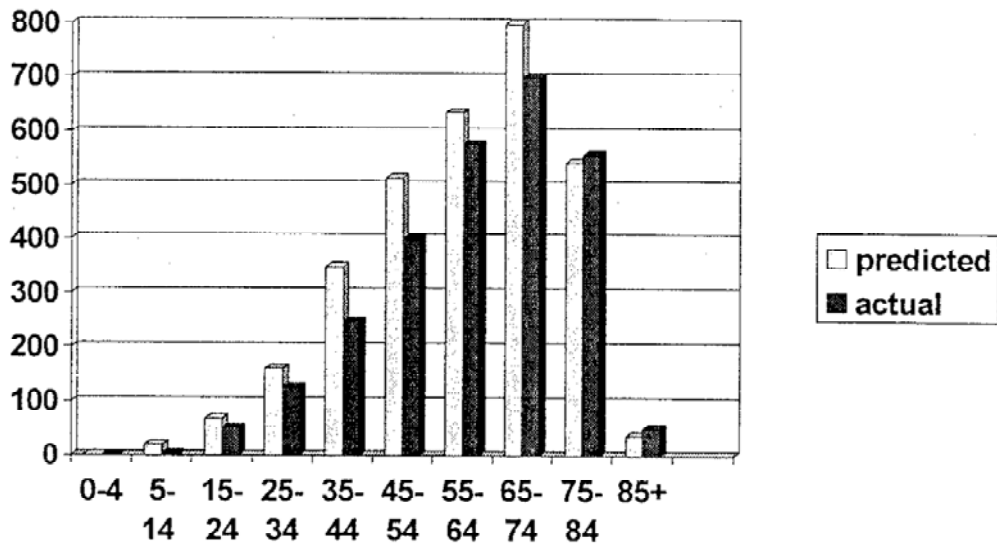
Incidence rates for the population aged less than 65 years appear to be stable, but projected incidence rates for people aged 65-74 and 75-84 are significantly higher than for other age cohorts (See Figure 7). The actual incidence rates in all age groups less than 75 years of age is now significantly below that projected (Figure 8).

**Figure 7: Projected NSW incidence rates for age categories - 45-54, 55-64, 65-74, 75-84, and 85+ years**



Source: NSW Health Draft Renal Dialysis Plan to 2011, Health Services Research Group 2004

**Figure 8: Comparison of Actual and Predicted Rates for Renal Dialysis by Age**

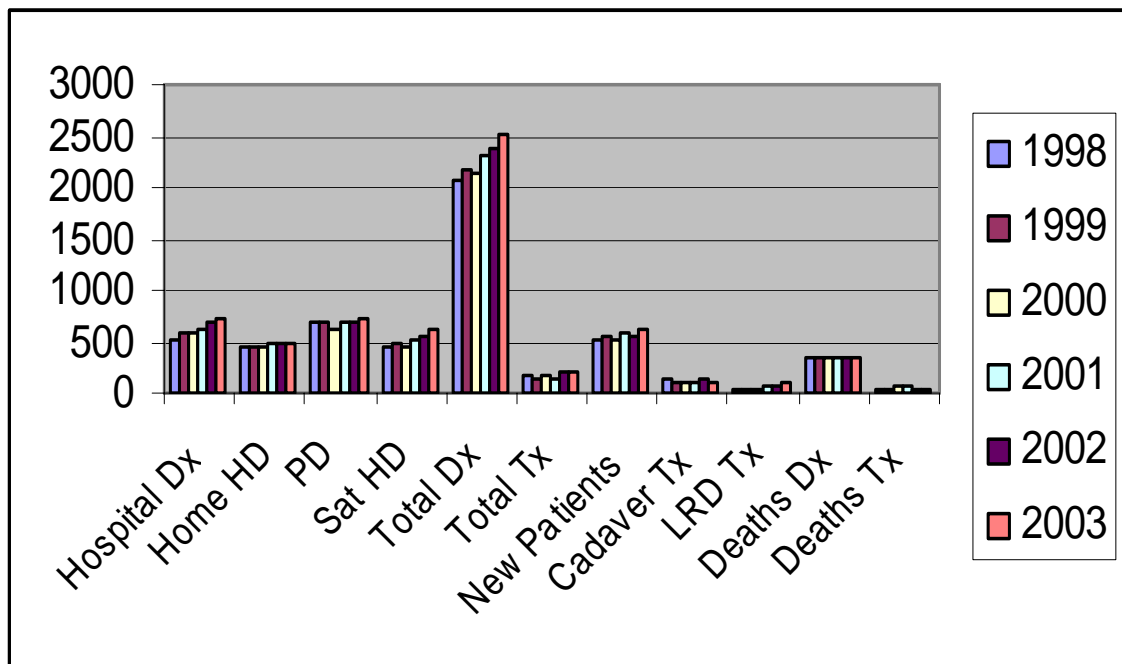


Source: ANZDATA Registry (2006)

Renal Dialysis Treatment Modalities

Figure 9 illustrates the growth in renal dialysis treatment across NSW from 1998-2003. It shows steady growth, particularly in hospital and satellite dialysis with modest increases over time in home haemodialysis and peritoneal dialysis. Deaths have remained relatively static and with more patients entering the program than leaving (by transplant or death) there is an overall increase in patients on dialysis.

**Figure 9: NSW/ACT —Treatment for End Stage Kidney Failure 1998 – 2003**



Source: NSW Health, Draft Renal Dialysis Plan to 2011

### 5.3 Hunter New England Area – Overview

HNE Health Strategic Directions 2006-2010 HNE Health – Introducing the Area, the People, the Health Services<sup>17</sup> provides a detailed overview of the Hunter New England area and demographics. Table 2 presents projected population growth based upon 2001 ABS census data.

**Table 2: Projected Population growth across HNE Health 2001 to 2016**

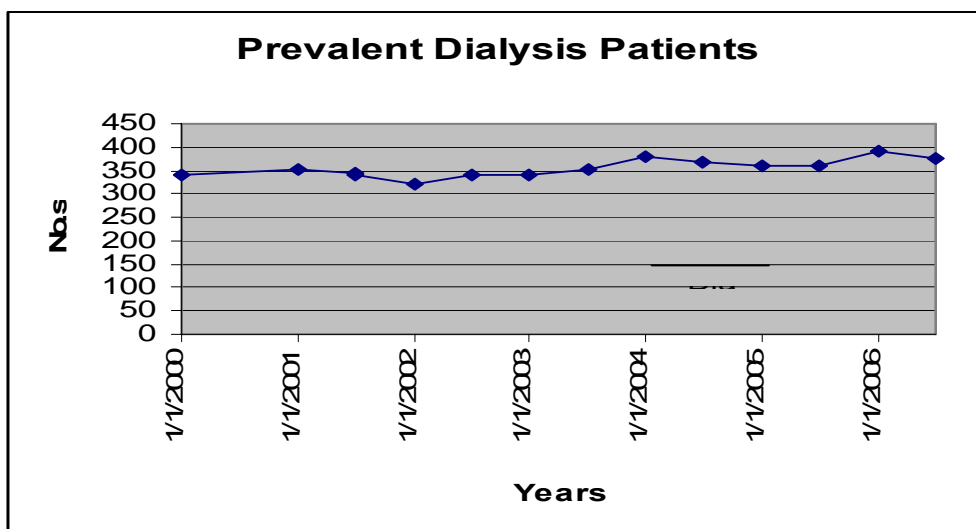
Cluster/Area	2001	2006	2011	2016
Mehi Cluster	30,790	30,130	29,540	29,040
McIntyre Cluster	21,140	20,710	20,180	19,950
Tablelands Cluster	51,260	50,870	50,670	50,600
Peel Cluster	72,530	73,090	73,900	74,920
Upper Hunter Cluster	34,810	34,340	33,690	33,100
Lower Hunter Cluster	133,380	140,020	145,600	150,970
Lower Mid North Coast Cluster	81,920	85,930	89,230	92,610
Greater Newcastle Cluster	388,970	402,580	414,060	424,390
Hunter New England Area	814,800	837,670	856,870	875,580

Source: DIPNR Dec. 2004 <sup>18</sup>

#### Dialysis Patients for Hunter New England Area 2000 - 2006

Since 2000 there has been a modest overall growth in the number of dialysis patients in the Hunter New England area. These figures are dependent on the number of dialysis machines across the area and the available funding and staffing to run extra shifts. These figures do not represent overall patient activity as previously discussed as the numbers receiving renal dialysis are also influenced by patient mortality and the number of transplants performed.

**Figure 10: Total numbers of dialysis patients - HNE Health 2000-2006**



Source: Flow Info 2004/05. this may exclude some inpatient hospital related activity. <sup>19</sup>

**Table 3: Projected Numbers of Renal Dialysis Patients for HNE Area 2001 - 2016**

Cluster	2001	2006	2011	2016
Tablelands	19	25	31	37
Peel	27	37	46	56
Mehi	10	13	17	20
McIntyre	8	11	14	17
Lower Mid North Coast	38	55	71	88
Upper Hunter	13	17	20	24
Lower Hunter	46	65	85	104
Greater Newcastle	152	211	269	328
Totals	313	433	554	674

Source: DIPNR 2004 and based upon Projections per LGA for 2001-2016 by the Health Services Research Group 2004

The figures in Table 3 are projected numbers of patients receiving renal dialysis for Hunter New England Area by Clusters for 2001-2016. These figures do not take into account the socio-economic and cultural variables across the area that impact upon communities' health disadvantage. Some clusters have significant proportions of people with poor health and high-risk population groups.<sup>20</sup> Examples of these clusters within the Hunter New England area are the Mehi cluster where the population includes high proportions of Aboriginal people and the Lower Mid-North Coast cluster and Port Stephens area where there are growing populations of older people.

#### Patients referred to the Renal Services prior to dialysis (Pre-Dialysis)

The figures presented in the table below are people currently referred for pre-dialysis education and management programs across the region.

**Table 4 : HNE Renal Pre-Dialysis Patients –September 2006**

Pre-Dialysis Patients	
McIntyre	15
Mehi	18
Peel	43
Tablelands	30
Upper Hunter	21
Lower Hunter	41
Lower Mid North Coast	23
Greater Newcastle	94
Out of Area	10
Totals	295

Source: From Centre Records 15.9.06

People who are registered for pre-dialysis care and education are recorded differently across HNE Health. In Table 4 the figures for the McIntyre, Mehi, Peel and Tablelands Clusters include all people with kidney failure referred to their education and support programs, including those who will not necessarily enter the dialysis program. The figures for Greater Newcastle, Upper Hunter, Lower Hunter and the Lower Mid North Coast Clusters include those people with kidney failure who are likely to enter the renal dialysis program and who will require support to prepare for this treatment. Despite this anomaly, the numbers of patients across HNE renal services that are requiring pre-dialysis support is significant and provides insight into the likely future demand for dialysis services.

### Aboriginal Health Needs

Table 5 presents the Aboriginal population by cluster for the Hunter New England area. The highest proportion of Aboriginal and Torres Strait Islander people is found in the Mehi Cluster (17.8% in Moree Plains Local Government Area), whilst the greatest numbers of Aboriginal people live in the Greater Newcastle Cluster. Aboriginal people experience a greater burden of illness than other groups in Australia across a range of conditions including renal disease<sup>20</sup>.

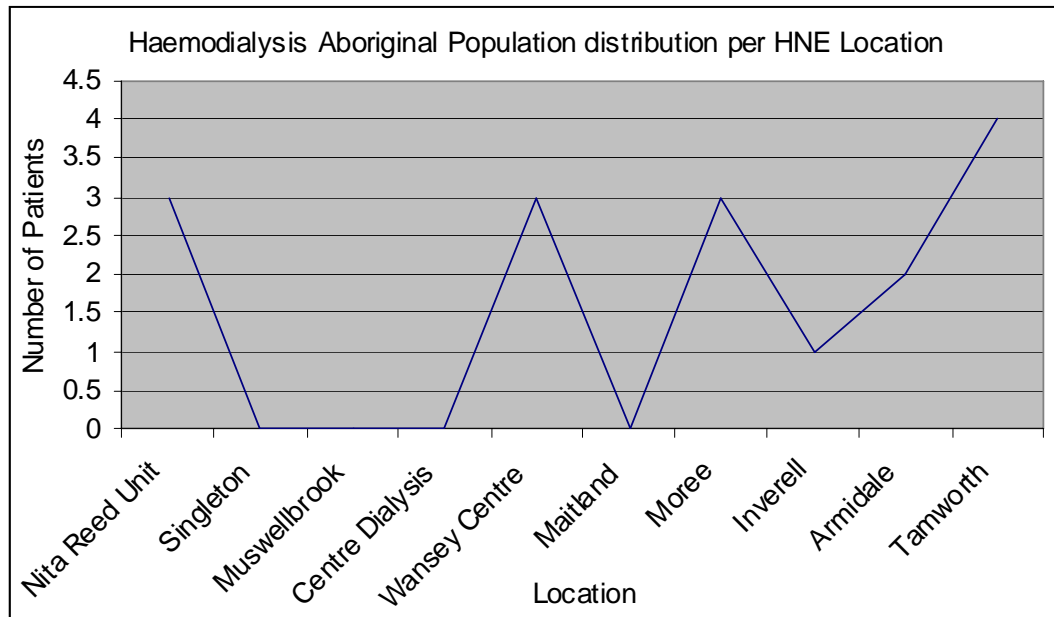
**Table 5: Aboriginal Population totals by Cluster for 2004**

Cluster	0-29 yrs	30-44 yrs	45+ yrs	Total	% pop <sup>2</sup>
Tablelands	2113	642	458	3213	6.3
Peel	3290	972	869	5131	7.2
Mehi	2897	978	770	4645	15.4
McIntyre	626	164	151	941	4.5
Lower Mid North Coast	1996	568	495	3059	3.6
Upper Hunter	904	319	190	1413	4.1
Lower Hunter	2373	702	514	3589	2.6
Greater Newcastle	5367	1675	1305	8347	2.1
Totals	19566	6020	4752	30338	3.5

<sup>2</sup>Note: Population estimate as at June 30, 2004.

Source; Australian Bureau of Statistics estimated residential population (ABS, unpublished) Figures based upon 2006 Population Estimates DIPNR Dec. 2004<sup>14</sup>

Figure 11 shows the number of Aboriginal patients currently attending haemodialysis units across the Area. In some of the smaller units in rural areas a significant proportion of renal patients are of Aboriginal and Torres Strait Islander descent. Seventy five percent of patients dialysing in Moree Dialysis Unit are Aboriginal. In the Armidale, Tamworth, Nita Reed and Inverell units the proportion of Aboriginal patients is between 20-30%. For the Wansey Centre Unit in Newcastle 5% of patients were Aboriginal with the John Hunter In-Centre Dialysis Maitland, Singleton and Muswellbrook units having no Aboriginal patients.

**Figure 11: Aboriginal people undergoing Haemodialysis treatment by Service unit.**

Source: Centre Audit February 2006

### 5.3.1 Hunter New England Area – Dialysis Service Activity

**Table 6: Location and capacity of existing HNE Renal Dialysis Facilities June 2006**

Renal Dialysis Services	No. of chairs	Capacity	Pt No.s	Additional Pt capacity	Occupancy	Days (shifts)
John Hunter	10	40	48	0	120%	7 (3)
Wansey Satellite	12	48	65	0	135%	6 (2)
Wansey Home Training	9	36	5	31	14%	4 (1)
Maitland	10	40	44	0	110%	6 (2)
Singleton	4	16	4	12	25%	3 (1)
Muswellbrook	3	12	4	8	25%	3 (1)
Taree community	8	32	16	16	50%	6 (1)
Tamworth	11	44	25	19	56%	6 (2&1)
Armidale	6	24	6	18	25%	6 (1)
Moree	6	24	6	18	25%	3 (1)
Inverell	4	16	4	12	25%	3 (1)

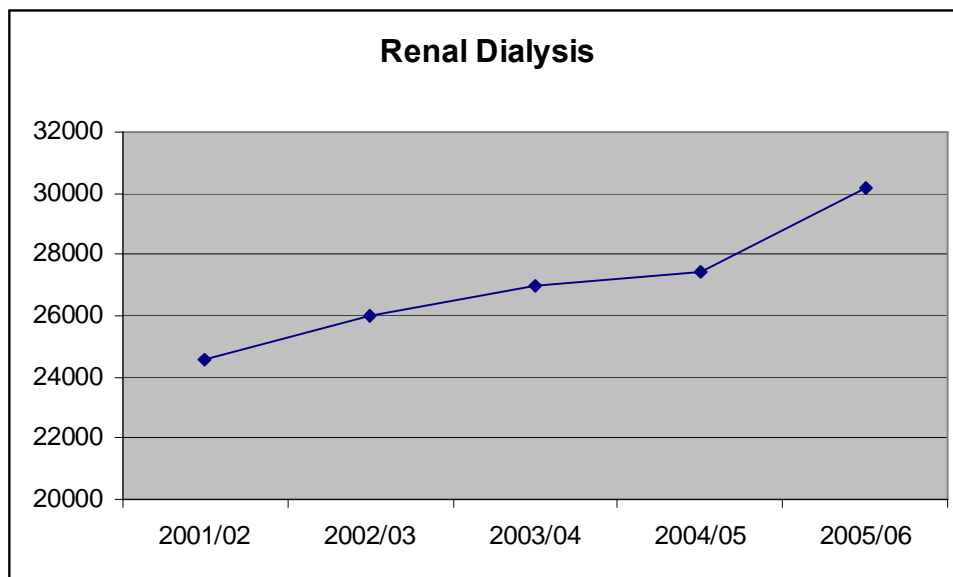
Source: Centre Records, June 2006

Table 6 identifies the number of dialysis chairs available at each dialysis unit and the number of patients utilizing these services. The capacity of each unit is also identified based on the State-wide Renal Services Plan 2011 formula for identifying capacity ie. operational hours two shifts a day, six days a week. (Optimal capacity). When using this formula areas that have activity in excess of two shifts a day, six days a week are identified as having a demand for service that exceeds the existing capacity available at that site. This indicates a need for service expansion at these locations.

Occupancy figures are calculated by dividing the capacity by current patient numbers. It should be noted that John Hunter Hospital currently operates three patient shifts a day resulting in an occupancy over 100%. At the Wansey Satellite Unit demand for service has resulted in an overflow of satellite patients into the Wansey Home Training Unit. This impacts negatively on the availability of chairs in the Home Training Unit, resulting in an overcapacity in the Wansey Satellite Unit and a reduced occupancy for the Wansey Home Training Unit.

A more detailed overview of the HNE Renal Services, current service provision and recent achievements and challenges is provided in Appendix 4.

**Figure 12: Renal Dialysis Treatment for all HNE facilities 2000-2005**



*Note: figures from Nita Reed Centre are not included*

*Source: Business Objects HIE, September 2006<sup>21</sup>*

*These figures do not include patients admitted with a different primary diagnosis. People within hospital requiring renal dialysis may only be recorded as single treatment rather than multiple treatments*

As mentioned previously renal dialysis activity levels continue to increase. Figure 12 identifies that the number of individual inpatient dialysis treatments in 2005/2006 was in excess of 30 000.

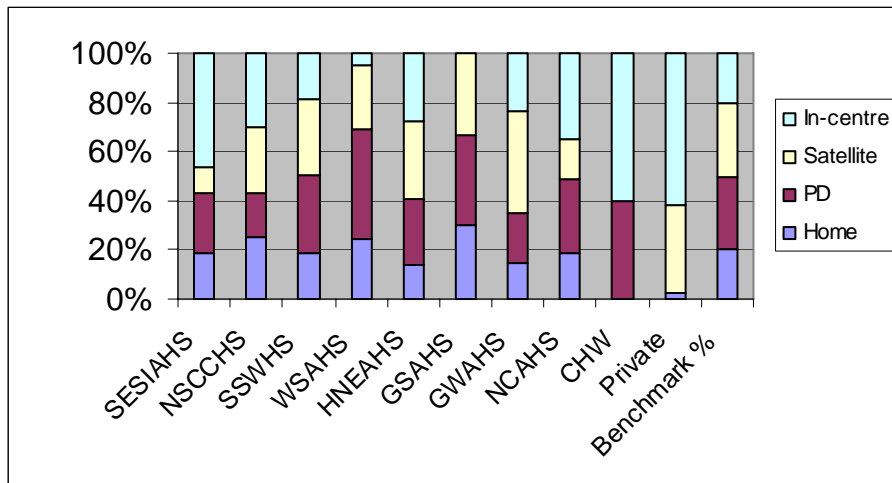
Figure 13 identifies the proportion of patients by treatment modalities for all Area Health Services in NSW. Current hospital dialysis percentages for HNE Health are higher than the benchmark (of 20%) and need to reach target benchmarks by concentrating development on satellite facilities and other treatment modalities across the area.

Following a review of the literature and consultation with renal clinicians and Area Health Services, the NSW Department of Health has set benchmarks for the distribution of the various modalities as follows:

- 50% Home based services, of this 30% are peritoneal dialysis and 20% are home haemodialysis
- 50% facility based services, of this 20% are hospital dialysis and 30% are satellite dialysis

Other factors, mentioned in the document that may impact on home based dialysis benchmarks, include inadequate water quality in a number of geographical areas (limiting the expansion of home haemodialysis).

**Figure 13: Treatment modality in use in all NSW Area Health Services – 31 March 2004**

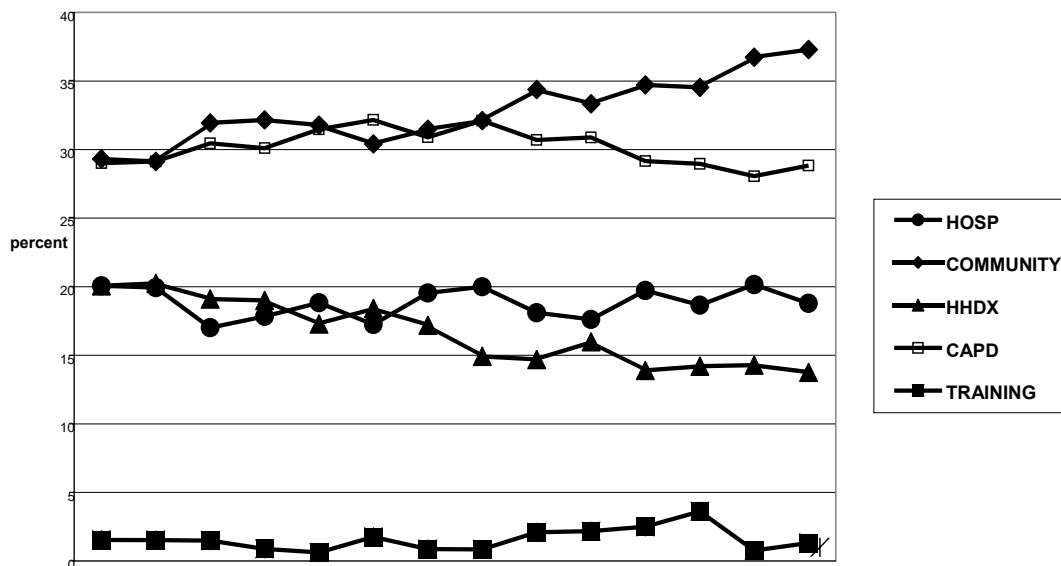


Source: NSW Health Draft Renal Dialysis Plan to 2011

Hospital dialysis facilities will need to be expanded to accommodate projected growth. The number of community dialysis patients treated in the Greater Newcastle, Lower Hunter, Upper Hunter, Lower Mid North Coast Clusters has increased steadily and is predicted to reach 137 by 2011, assuming the current distribution of treatment modalities remains unchanged. Due to an increasing proportion of people with co-morbid complications, including elderly patients, there will be a high proportion of dialysis dependent patients and consequently the number of patients dialysing in Community Centres is expected to exceed 140 by 2011.

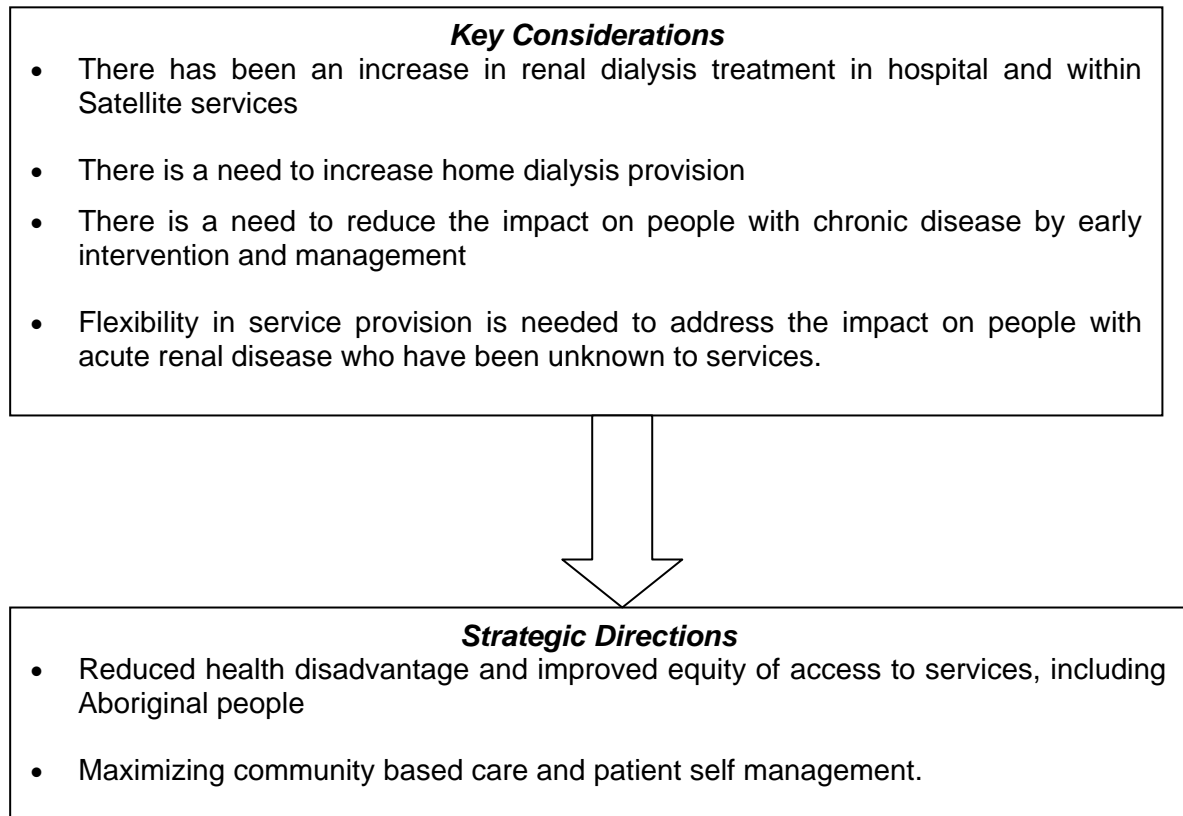
The trends in relation to treatment modalities for renal dialysis are presented below. They demonstrate an overall increase in Community (Satellite) dialysis treatment, with a reduction in the proportion of home haemodialysis and CAPD treatments.

**Figure 14: Percentage of modalities of Dialysis in HNE area 2000-2006**



Source: Centre records

Many patients select home dialysis modalities for treatment and NSW Health has determined that the benchmark should be 50% for home dialysis<sup>6</sup>. A number of factors currently challenge that goal: an increase in elderly patients commencing dialysis, an increase in the number of patients who are incapable of undertaking home treatment safely and an increase in the number of patients presenting with co-morbid conditions that require medical supervision.



### 5.3.2 Plasmapheresis Service

#### *Background*

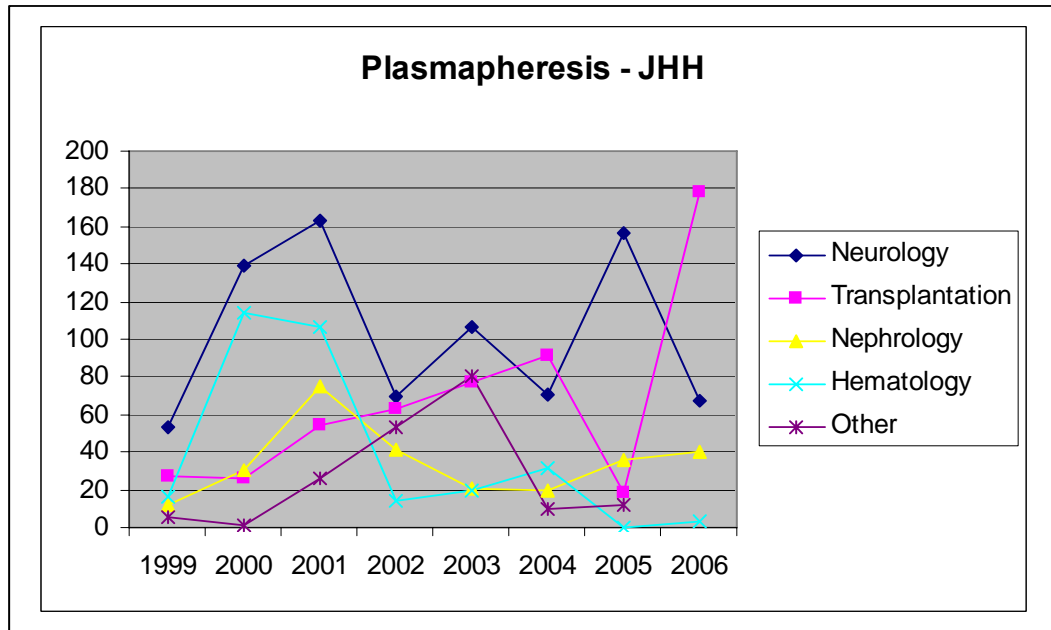
Plasma exchange (PE) is the process in which plasma is isolated then discarded and replaced with a substitute blood product to remove circulating immune complexes, antibodies and other macromolecules that cause specific medical conditions and disease processes.

#### *John Hunter Hospital (JHH) Plasmapheresis Service*

Therapeutic Plasma Exchange has been conducted at JHH since the hospital was commissioned in 1992. Initially the service was run and funded by the Blood Bank. Following incorporation of the Blood Bank into the Red Cross, responsibility for the Plasmapheresis Service at JHH passed to Nephrology department. Although a budget exchange occurred at the time, it was recognised then that activity was significantly in excess of the allocated budget. In order to address the growing funding shortfall a budget transfer system for Departments requiring Plasmapheresis services commenced in October 2006.

In recent years expansion of the Mater Hospital Hematology service has enabled plasmapheresis services for hematology patients to be conducted at the Mater Hospital.

**Figure 15: Plasmapheresis Clinical Activity John Hunter Hospital**



Source; JHH Centre records

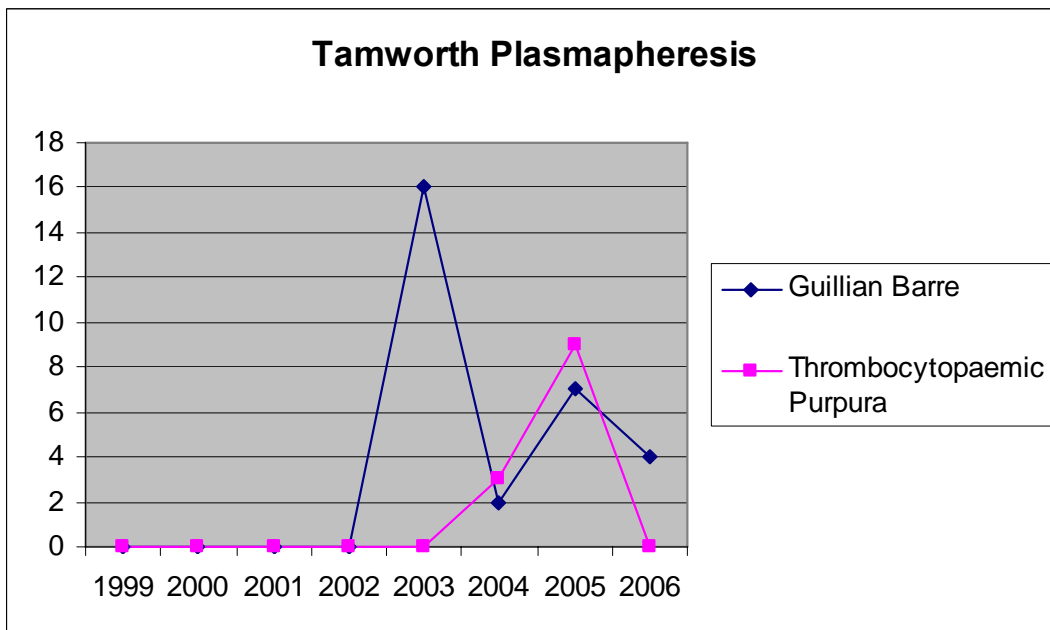
Note: Figures for 2006 are for Jan -Jul 06 only. Transplantation figures accounted for by the inclusion of Antibody Mediated Rejection procedure, which had not been used until 2006.

The dip in Neurology activity reflects the availability of access to IV Intragam treatment that reduces the need for plasmapheresis

**Tamworth Plasmapheresis Service**

At Tamworth Rural Referral Hospital data for plasmapheresis has been collected since 2003 for. Therapeutic Plasma Exchange was used in the treatment of Guillain-Barré syndrome (GBS) and Thrombotic Thrombocytopenic Purpura (TTP) within the Intensive Care Unit (ICU) setting at Tamworth Rural Referral Hospital. The Aquarius Continuous Renal Replacement Therapy CRRT dialysis machine (Edwards Life Sciences) is used to perform plasma exchange (TPE). This service in Tamworth is managed by the Intensive Care Unit.

**Figure 16 : Tamworth Plasmapheresis Service Activity**



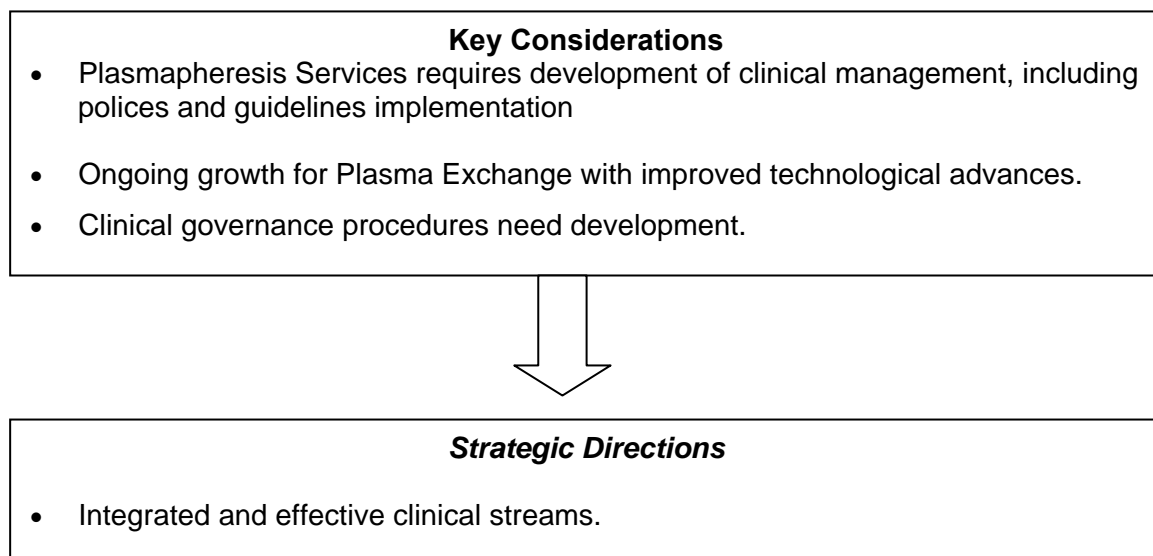
Source: Centre Records, Tamworth RR Hospital

*Plasmapheresis Service Issues*

Demand for this service has grown steadily. The projection of future need is difficult with the Canadian Apheresis group reporting in 1999 a 17% increase per annum in the number of patients and a 24% per annum in the number of plasma exchange treatments. The long term growth trend was 20% with costs highly dependent on the number of treatments required per patient.

Future enhancements are needed if the service is to manage this demand. The main patient groups requiring the service are: Nephrology, Transplant, Neurology, Haematology and other. During the 2005/06 financial year activity has increased for two groups - Neurology and Transplant.

Plasma exchange is now an integral part of the management of sensitised transplant recipients, and specific types of rejection, with the results achieving international recognition for the Newcastle Transplant Service.

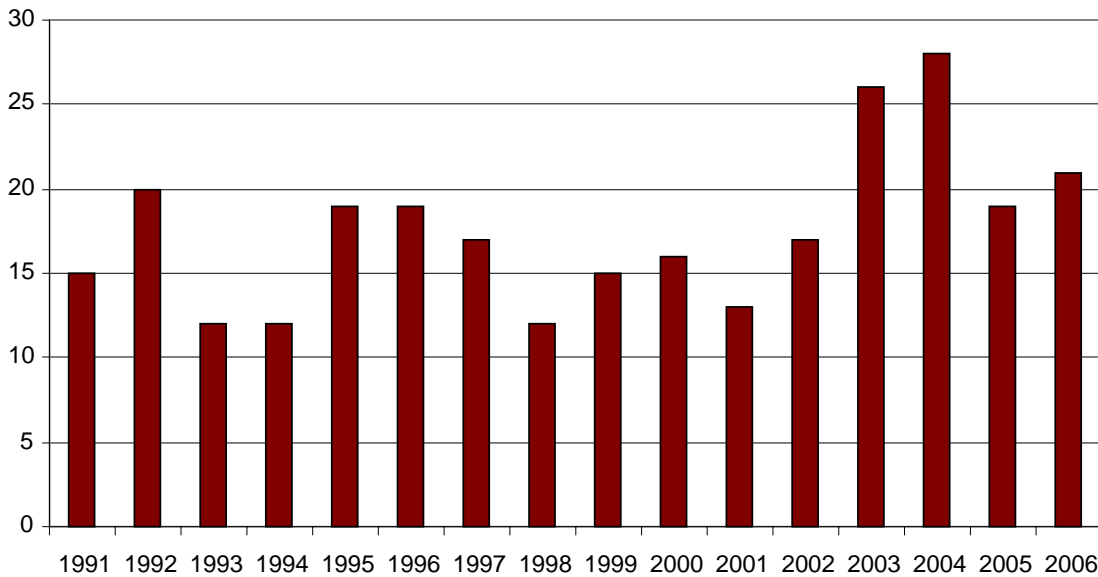
**5.3.3 Renal Transplant Services**

Renal Transplantation Services are provided at the John Hunter Hospital for the northern part of the state including, HNE Health. Current funding provides for live donor and deceased donor transplants at the rate of 25-28 per year. Figure 17 below presents the number of renal transplants conducted at JHH from 2000/01 to 2005/06. The service recognises the challenge to increase renal transplants to meet funding targets, particularly encouraging greater use of the live donor program.

The Renal Transplant Unit requires an expansion of the Renal Transplantation Program to 35-40 per year to support enhanced transplantation services and maintain adequate staffing levels. Ongoing improvements in renal transplant technology also require the development of new approaches and programs including the establishment of a Single Cell Facility for Transplantation; Islet Transplantation procedures for patients with diabetes, and ongoing research and practice into improved outcomes for renal transplant procedures.

**Figure 17: Renal Transplantation John Hunter Hospital**

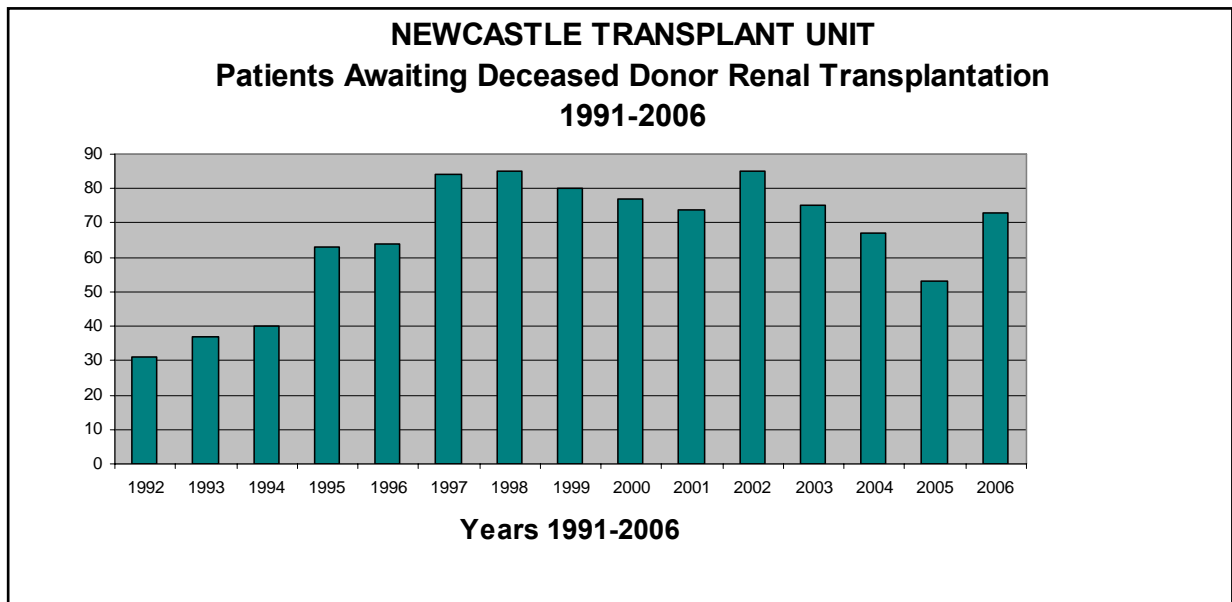
**Newcastle Transplant Unit - Total Number of Transplants 1991-2006**



Source Transplantation Centre Records

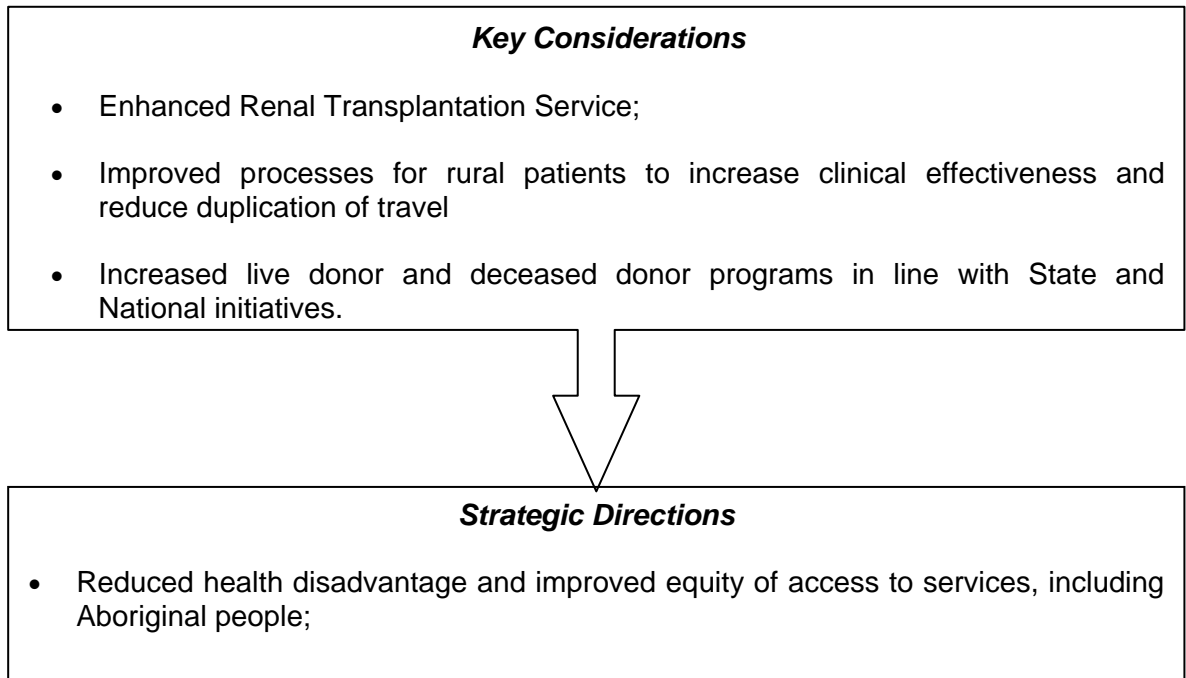
Figure 18 below outlines the numbers of people on the Prospective Renal Transplant Waiting List for the Newcastle Transplant Unit 1991-2006.

**Figure 18: People Awaiting Deceased Donor Renal Transplantation**



Source; Centre Records 2006

The Newcastle Transplant Unit was established in 1992. Waiting list figures have remained consistently high with over 70 people on the list each year since its inception except for 2005.



#### **5.3.4 Community Outreach Support Services**

The State-wide Renal Services Plan 2011<sup>6</sup> advocates 50% of dialysis patients should be undertaking dialysis within their homes (see Table 7). Currently HNE Health has minimal numbers of nursing and allied health staff supporting patients at home within the Lower Mid North Coast, Greater Newcastle, Upper Hunter and Lower Hunter Clusters. The Greater Newcastle and Upper and Lower Hunter clusters currently have 0.5FTE Registered Nurse to provide support for 96 patients dialysing at home. This is more than four times the benchmark ratio for nursing support to patients in the community i.e., the benchmark of one RN per forty patients. Home Dialysis constitutes only 36% of all dialysis patients in these clusters, significantly less than the 50% benchmarks advocated in the NSW Draft Renal Dialysis Services Plan.

The Northern clusters have a more viable Community and Outreach Support services structure and have been able to support a higher proportion of people (approximately 60%) undertaking dialysis at home. The extreme distances that people would have to travel for community or hospital based dialysis services make this a necessary option for many rural people.

Ongoing education, support and counseling are needed to maintain patient independence and to reduce the rate of hospitalisation and dependency on the health service. Community outreach services play an important part in the care and treatment of people with renal disease and in supporting their families and carers.

**Table 7: Numbers of Renal Dialysis Patients being Treated at Home by Cluster**

Cluster	Home HDx	Home CAPD	Home APD	In Training
Tablelands	2	4	6	-
Peel	5	4	8	-
Mehi	4	3	4	-
McIntyre	1	4	2	-
LMNC	6	4	3	2
Upper Hunter	7	0	11	-
Lower Hunter	2	4	-	1
Greater Newcastle	20	15	27	8
Out of Area	2	-	-	1
Total	49	38	61	12

Source: Centre Records June 2006

### 5.3.5 General Nephrology

#### *Inpatient Nephrology*

Inpatient Nephrology consists of general nephrology as well as admissions related to end stage kidney disease and transplantation. There is a dedicated sixteen bed ward at John Hunter Hospital plus a four bed Transplant Unit. At Tamworth Rural Referral Hospital and Manning Rural Referral Hospital, the complex nephrology patients are accommodated within the general medical wards (see Table 8). Separation data for the Nephrology Admitting Medical Officers indicate bed usage across these units as per Table 8. Bed usage data indicates that there has been an increase in the beds used compared to that allocated for general nephrology in JHH.

**Table 8: Bed Usage for General Nephrology**

Facility	Used	Designated
John Hunter Hospital	20.2 + transplant	16 + Transplant
Tamworth RRH	8*	0
Manning RRH	4*	0

Source: Centre Records

\* Identification of Nephrology from the bulk of General Medical separations for the Nephrologists practicing at the Rural Referral Hospitals is inaccurate. Bed use has steadily increased at all sites.

#### *Acute Renal Failure (ARF)*

Acute renal failure (ARF) is defined as a sudden impairment in the kidneys' ability to excrete the nitrogenous waste products of metabolism. ARF is often associated with oliguria (reduction in urine output).

The specialist renal unit and/or Intensive Care Unit (ICU) manage patients with renal failure and/or who are developing acute renal failure. Many of the patients with ARF in ICU also have systemic inflammatory response syndrome (SIRS) and some, multi-organ dysfunction syndrome, (MODS). Continuous renal replacement therapy (CRRT) has been shown to remove or adsorb putative mediators of organ dysfunction, modulating the deranged cytokine cascade which has led to MODS. CRRT is performed in the ICU at John Hunter Hospital, Mater and Tamworth hospitals.

Patients with known chronic kidney disease can receive a short course of CRRT, usually after hours, for control of water overload or hyperkalemia where there is no after hours oncall service provided by the renal units. After the initial dialysis they are then managed by the

dialysis service either in the renal units or intensive care unit daily or second daily as clinically indicated.

The renal services at JHH and Tamworth hospitals provide staff and equipment to the Intensive Care Units to provide intermittent dialysis when continuous renal replacement therapy is no longer required.

As the growth in dialysis services continues, there will be increasing difficulties in maintaining this service, specifically in relation to frequency of dialysis runs and the timing of these treatments. While the renal services are committed to this ongoing service, future staffing enhancement will be required to support the provision of the comprehensive services required.

#### *Renal Investigations*

Renal procedures are generally outpatient activities related to kidney dysfunction e.g., renal biopsy. Activity in the renal procedures area and renal laboratory at John Hunter Hospital has steadily increased (see Table 9). These increases relate to increasing levels of acute kidney dysfunction over time. No information is available for Tamworth Rural Referral Hospital and there has been no significant activity in this area at Taree until very recently. At JHH these medical procedures are undertaken in the renal laboratory. Any increase in these activities will impact upon the renal laboratory and also general pathology services.

**Table 9: Renal Medical Procedures 2004 – 2006**

	<b>2004</b>	<b>2005</b>	<b>2006</b>
Renal procedures	N/A	988	1378
Renal biopsies*	304	243	286
Urine microscopy	1892	2262	2449
Other renal laboratory**	442	466	606
<i>**includes EDTA, GFR, ODRFT, cystatin C</i>			
<i>* in 2005 complexity of histological procedures increased</i>			

*Centre Records, 2006*

#### *Dialysis Access Surgery*

The increasing end stage kidney disease population has impacted on the availability of dialysis access surgery, best exemplified by the current waiting list for dialysis fistula construction which in Newcastle exceeds nine months and in Tamworth patients are being sent out of area for access surgery. Consequently an increasing proportion of haemodialysis patients are using central venous lines for dialysis resulting in inferior health outcomes.

#### *Internal Partners*

Hunter New England renal services interface with a number of internal and external partners. While the scope of this plan has been limited to the renal, transplantation and plasmapheresis services, the plan acknowledges these relationships. Any expansion of renal services will impact on these services requiring enhanced resources and service provision eg. vascular, urology, pathology, imaging, outpatients, operating suite, ICU and emergency department services.

### **5.3.6 Prevention and Management of Chronic Kidney Disease**

A number of factors contribute to the development and progression of Chronic Kidney Disease (CKD). Smoking can significantly increase the risk of developing CKD.<sup>22</sup>

Poor nutrition and obesity also increase the risk indirectly by influencing the development of biomedical risk factors such as Type 2 diabetes. Older people, people with a family history of CKD and Indigenous Australians also tend to have a greater risk of developing kidney disease.<sup>23</sup>

There is no cure for chronic kidney disease, but the disease is preventable and treatable, and as a result disease progression can be slowed or stopped. Many factors that increase the risk of developing CKD are modifiable and preventable.

Once CKD has been diagnosed, the implementation of therapeutic interventions can reduce the progressive deterioration in kidney function and death by 20–50% in high risk groups<sup>23</sup>. For patients with advanced CKD, early referral to a nephrologist for consultation and treatment, and care from a multidisciplinary team, have both been found to significantly improve the outcomes of kidney replacement therapy and increase the patient's life span.<sup>23</sup>

Although CKD has many characteristics that are different from other chronic diseases, its occurrence and development largely parallel the progress of diabetes and cardiovascular disease. Effective strategies for the prevention and management of CKD not only need to address kidney problems, but also the problems of other related diseases and shared risk factors.

There is convincing evidence early detection, education and treatment delay the progression of CKD and prevent complications. This can be achieved through strengthening the primary prevention focus and utilising an integrated multi-disciplinary approach that addresses CKD, cardiovascular disease and diabetes.

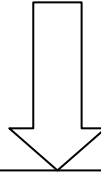
What are the implications for HNE Renal Services in relation to undertaking promotion and prevention approaches for kidney disease?

Promotion and prevention strategies for people at risk of diabetes and cardiovascular disease require resources and intervention programs that involve the shared responsibility of a range of clinical services. Working in partnership with general practitioners, population health services and non-government organisations would offer benefits to people with high risk factors. Providing education to these primary health providers on minimising the risks to people of chronic kidney disease is an ongoing role for Renal Services.

Early detection and treatment of people with chronic kidney disease is a key responsibility of Renal Services. There is evidence of education and management approaches that are effective and minimise the long term impacts of kidney disease. Renal Services have developed education programs and treatment procedures to manage people with chronic kidney disease effectively. There is a need to incorporate multidisciplinary programs including medical, nursing and allied health staff in collaboration with established programs such as cardiac and rehabilitation services.<sup>23</sup>

***Key Considerations***

- Increased prevalence of chronic kidney disease in community and growth in demand for renal dialysis for end stage renal disease
- Risks factors associated with kidney disease includes, age, Aboriginality, some Cultural and Linguistically Diverse backgrounds, diabetes, cardiovascular disease, smoking and obesity



***Strategic Directions***

- Reduced health disadvantage and improved equity of access to services, including Aboriginal people
- Enhanced community support for health promotion, kidney disease prevention and early intervention

## 6. OVERVIEW OF KEY DIRECTIONS AND ISSUES

### 6.1 Service Issues

There is a diversity of renal service provision across HNE Health that presents challenges to the development of the HNE Renal Services Plan. An overview of the current services and some of the challenges facing these services is presented in Appendix 4. National and State directions for renal services also have implications for future service provision approaches including promotion and prevention approaches for people at risk of kidney disease, increased home dialysis provision and greater access to kidney transplantation. There are common issues and challenges for all HNE Renal Services relating to workforce recruitment and retention, patient access to appropriate services and transport, and meeting clinical governance and service standards requirements.

#### McIntyre, Mehi, Peel and Tablelands Clusters

Since 2000 renal services in these clusters have expanded with the establishment of three haemodialysis satellite units at Armidale, Inverell and Moree. These units facilitate access to appropriate services and co-ordination of service development. Renal services in these clusters had originally focused upon the specialized services based at Tamworth.

While this growth has seen a significant expansion of services, the ability to maintain the provision of these clinical services to remote rural areas presents ongoing workforce challenges. Ensuring skilled clinicians are available in isolated regions requires ongoing recruitment and retention strategies.

The expansion of renal services to Moree has enabled patients to stay in their own communities thus improving their quality of life. However, when the Moree Renal Dialysis Unit is full, patients must transport themselves to Tamworth three days per week (Inverell is at capacity) to receive their haemodialysis treatment.

#### Greater Newcastle Cluster

In the Greater Newcastle Cluster dialysis capacity is inadequate to meet current need and there is no room for further expansion. Renal services have always had the philosophy of maximising home dialysis and community based dialysis over hospital-based dialysis. Home dialysis training provided at the Wansey Centre is under constant pressure from the satellite dialysis and in-centre dialysis units which are often over-capacity and overflow patients into the home dialysis training unit.

There is an urgent need to increase community based dialysis services as well as in-centre dialysis capacity at John Hunter Hospital to meet growing demand, support people with co-morbid complications and manage the growth in acute renal failure and plasma exchange. The current John Hunter In-Centre Dialysis Unit is too small to continue to manage hospital-based renal services. Existing space limitations prevent staff from providing quality care, as there is inadequate space for infection prevention practices and an inability to maintain patient confidentiality and privacy.

#### Lower Hunter and Upper Hunter Clusters

The Dialysis Unit located within Maitland Hospital operates separately from the medical services within Maitland Hospital. There are dialysis facilities at Singleton and Muswellbrook Hospitals offering only single shift services. Nurses in these facilities operate as sole practitioners – this situation is not acceptable or safe practice.

People in parts of the Upper Hunter such as Quirindi tend to access hospital-based care at Tamworth Hospital. Ongoing community treatment and management requires co-ordination with health services in the Upper Hunter and Peel Clusters. Similarly people in the Lower Hunter using hospital based services in Newcastle also require co-ordinated community and hospital care.

#### Lower Mid North Coast Cluster

The Lower Mid North Coast Cluster is currently serviced by the Nita Reed Centre at Taree. The Centre has eight dialysis machines operating one shift 6 days per week with no medical coverage. (Note: some medical support is provided by GPs and the ambulance service). This service is based in a community setting and managed through Taree Community Health Service. The service is not able to cope with people with complex medical conditions, the current facility is cramped, does not meet current infection control standards and requires re-development in the near future. A four chair unit has recently opened in the private sector.

There are no facilities providing acute dialysis services in the Lower Mid North Coast at present. People who require hospital care and need dialysis treatment must be transferred to John Hunter Hospital. There is also limited clinical support provided by the Clinical Nurse Consultant for the cluster. Support for community based dialysis services is also limited due to the lack of community and outreach service provision. Any expansion of services in the Lower Mid North Coast Cluster is dependent upon the availability of skilled clinicians.

## 6.2 Key Directions and Issues

On the 20 October 2006 the renal planning development team presented a list of fifteen key directions and issues to the renal planning group. This list had been generated from a review of existing service profiles, identifying strengths and gaps in renal service provision. Of the fifteen issues presented to the workshop, the group ranked nine as high priority. Many of the issues and directions were interrelated and covered a number of areas. The key issues were prioritized as follows:

### *Prioritisation of Issues*

#### Chronic Kidney Disease Primary Identification and Management

A draft National Framework for the Management of Chronic Kidney Disease (CKD) has been developed and is included in Appendix Six. The framework is for the prevention and management of CKD and involves five progressive stages of treatment and management. Currently, nephrology and renal services resources focus on stages Four and Five. Stages One and Two are managed through primary care services including; GPs, Aboriginal Medical Services (AMS), community health programs and as part of chronic disease management. While there is a need to improve early detection and management (Stage Three) by these primary care providers the primary roles of renal services are limited to Stages Four and Five.

This is mainly due to:

- Limited resources,
- Reliance on referral to Nephrologist from general practitioners,
- Lack of early interventions and referrals - GP links and education,
- Lack of agreed clinical management plan,
- State CKD action plan being developed which will provide funding opportunities,
- Strategies needed to be developed to target high risk groups.

### *Workforce Issues*

A sustainable and multi-disciplinary skilled workforce is needed to provide care for the patients with kidney failure. Renal failure is a complex, life-long disease that has a profound impact on both the patient and their families/carers. Key workforce issues and needs include:

- Ageing workforce,
- Recruitment and retention issues,
- Need for benchmarking to achieve agreed staffing levels across HNE Health Renal Services.<sup>2425</sup>
- Development of innovative models of care e.g. Nurse Practitioner, Enrolled Nurses, Aboriginal Health Workers, allied health, technicians,
- Increased professional development opportunities for new staff to allow skill development,
- Development of innovative models of retention eg: career pathways in allied health, biomedical staff,
- Education and training opportunities including succession planning.

### *Community and Outreach Support Services*

Renal dialysis treatment should be managed at home where possible, through a well resourced and serviced home management program. Where patients cannot support themselves in their home environment other programs that foster self-management of their dialysis should be fostered. Outreach programs provide specialised support services including education and clinical advice or assistance. Priority needs include:

- Adequate service provision levels,
- Guidelines for staffing requirements,
- Support for home dialysis – look at financial assistance for the patient, increase independence and functioning,
- Equity of access to services,
- Availability of respite services,
- Innovative models of self-care dialysis eg: including use of Multi-Purpose Services (MPS), 6 day nocturnal dialysis (in-centre or home).

### *Service Development Priorities*

A systematic approach towards equitable service development was considered to be a high priority issue involve the identification of:

- Priorities and facilities for growth,
- Geographic priorities across HNE area,
- Treatment modality priorities – i.e, Outreach services versus Home Dialysis versus Satellite versus Hospital versus Transplantation services.

### *Clinical Standards*

With the merger of renal services, the need to develop and implement area wide clinical approaches and standards are critical including:

- Agreed standardised clinical practices,
- 'Best practice' models of care,
- Infection control procedures,
- Standard of water quality,
- Facilities design, capacity and location,
- Equipment, goods and services e.g. Machines,
- Standardised data collection and IT.

### *Promotion and Prevention Programs*

The Caring for Australasians with Renal Impairment (CARI) Guidelines for early detection of patients with renal disease state that there is very little evidence or support for screening of the general population. If screening is provided it should target towards high-risk groups and be part of a chronic disease management strategy. There are chronic diseases that have the same risk factors therefore integrated primary screening for patients at high risk of these diseases should be promoted including:

- Early screening for high risk groups including Aboriginal communities, people with diabetes,
- Links with primary health care providers such as general practitioners, community health, diabetes and cardiovascular services,
- Developing prevention, education and health promotion programs.

### *Vascular Access Surgery*

A pre-emptively placed natural arteriovenous fistula (AVF) is the ideal vascular access for the patient destined for haemodialysis (HD). Early placement avoids emergency insertion of catheters and reduces hospitalization. At least six weeks is required for an AVF to mature. Similarly, a Tenckhoff catheter for peritoneal dialysis (PD) should ideally be inserted in time to allow two weeks healing before commencing dialysis. These ideals require time for the multidisciplinary team to co-ordinate surgical review and arrange theatre lists. Adequate provision of dialysis access surgery is essential for good health outcomes in dialysis. The current situation across the area is sub-optimal. The following needs to be addressed:

- Waiting times to access surgery,
- Regional access to surgery services
- Prioritisation of surgery,
- Availability of operating theatre time,
- Availability of beds.

### *Aboriginal Health Issues*

The increasing incidence of renal disease in the Aboriginal population requires effective strategies for screening and prevention including:

- Early Screening program,
- Ongoing information and education, for the community and Aboriginal Health professionals,
- Culturally appropriate renal health services,
- Development of an HNE area-wide chronic disease prevention program,
- The feasibility of Aboriginal Health Workers within dialysis units/service.

### *Transport Issues*

Extensive consultation as part of the development of the renal transport plan (developed in 2006) identified major issues in the provision of renal transport for this group of people. A summary is included in Appendix seven. The major issues identified were:

- Costs incurred by patients,
- Access to transport services,
- Area-wide Health Transport coordination and communication for renal patients,
- Patient assessment for transport needs based on health criteria,
- Rostering for dialysis and matching transport to dialysis times,
- Need for more diverse options for transport,

- Community perception/ expectation of free transport,
- Discrimination/ stigmatism against renal patients (chronic patients).

### *Technical Services*

Wansey Dialysis workshop is managed through the Nephrology Department of JHH and provides technical support and training for home patients and all Southern Dialysis Units and Mid North Coast. This Unit provides technical support to private dialysis units and the North Coast Area Health Service. The Northern renal technicians are managed through Engineering and Maintenance providing maintenance and technical support for renal units and home patients.

Key issues include:

- Need to merge technical services,
- Northern to move from Engineering to Medical management,
- Aging of equipment and replacement,
- Shortage of vehicles,
- Water quality management,
- Need to develop common work practices and database.

### *Other Issues*

- Inpatient services,
- Rural and Remote Issues,
- Renal Transplantation Services,
- General Nephrology,
- Plasmapheresis,
- Facilitating Patient Independence.

## 7. OVERVIEW OF CONSULTATION PROCESS

The Renal Services Plan 2007- 2011 has been developed following service enhancement proposals for Renal Dialysis services in September 2006. The enhancement process identified the short and medium term needs for future dialysis service developments. It had been recognised that an over-arching Renal Services Plan was required to ensure that enhancements reflected integrated developments across HNE Health. The enhancement proposal for renal dialysis services provided an initial focus for future planning needs, but the broader scope of the plan required consideration of plasmapheresis and renal transplantation services. Involving clinicians from these services was essential to ensure a comprehensive picture of service needs and directions were identified.

A draft background paper was completed detailing an overview of the policy directions and service activity and distributed to the Renal Planning Group for comment in September 2006. The feedback from this consultation was collated and changes made to the draft background paper. An overview of this feedback and changes are included in Appendix Eight. Key changes made to the plan at this stage included providing additional information relating to plasmapheresis and renal transplantation services, clarification of clinical guidelines and service provision activity and prioritisation of home dialysis training.

In order to complete the Renal Services plan within the limited timeframe proposed it was decided to undertake two consultation workshops involving key stakeholders in October 2006 to develop the main components of the plan. These workshops included the Renal Planning group with wider stakeholder participation to ensure broad input (List of participants included in Appendix Two). The revised background paper was used as the basis for the workshop focus and activities. For the first workshop the Renal Planning Development Team presented a list of fifteen key directions and issues. This list had been developed from existing service profiles, which identified strengths and gaps in renal service provision. Of the fifteen issues presented to the workshop, the group ranked nine as high priorities. Many of the issues and directions were interrelated and covered a number of areas. The key issues and direction were prioritized and are included in more detail in Section 6.2 Key Directions and Issues.

The second workshop reviewed these priority areas and commenced work on the strategic objectives and Strategic Action Plan. The Action Plan initiatives were completed with consultations occurring between meetings and a further review by the Renal Planning Group. Following agreement by the Renal Planning group this draft Renal Services Plan was distributed to internal and external stakeholders for feedback in November 2006. An overview of the feedback and changes made to the plan are included in Appendix Eight.

The revised Draft Renal Services Plan 2007-2011 was reviewed by the Area Executive Team in December 2006 with comments also included in Appendix Eight. Key comments from the Area Executive included ensuring links to NSW Health directions, prioritisation of service areas and plasmapheresis, renal transplantation and vascular access surgery services. Changes were made in line with this review process.

The workforce planning process was undertaken following the initial review by the Area Executive with the availability of Workforce Planning Unit support. As workforce planning issues and strategies were identified further reviews of the planning documents were undertaken to ensure there was consistency across the plan. The Planning Group undertook a further workshop in February 2007 where prioritisation of initiatives for funding was undertaken and clinical stream development discussions took place. A final version of the Renal Services plan was circulated to the Renal Planning group in February 2007 for further review and revision.

## **8. ETHNICS AFFAIRS PRIORITY STATEMENT**

The Renal Service Plan acknowledges the needs of people from culturally and linguistically diverse backgrounds for equity and access in renal care, culturally and linguistically appropriate services and informed choice of renal treatments.

The Renal Health Plan includes:

- Recognition of the inadequacy of data available on the renal health status of CALD communities.
- Identification of chronic health issues like diabetes in some people from culturally and linguistically diverse (CALD) backgrounds.
- Recognition of the fact that many CALD communities have high elderly populations.
- Need to work collaboratively with culturally and linguistically diverse communities and organisations eg. Multicultural Health Unit including the Health Care Interpreting Service, Northern Settlement Service Pty Ltd and the Ethnic Community Council.
- Cross cultural awareness training for staff so they can provide culturally appropriate care.
- The need to develop education programs that take into consideration the English literacy of participants.

## 9. ABORIGINAL HEALTH IMPACT STATEMENT

The Renal Services Plan recognises the need for improved services for Aboriginal people and communities. Specific strategies have been developed to improve the accessibility and appropriateness of renal health services and the need for closer partnerships with Aboriginal controlled health services.

Current issues identified in the plan include:

- Recognition of the health disadvantage within Aboriginal communities
- Chronic health needs particularly in relation to people with diabetes and cardiovascular disease.
- Access to health services, particularly in rural and remote areas.
- Early identification, screening and treatment of kidney disease.

It is anticipated that over the five years of the plan that additional resources will be available to address the kidney health issues of Aboriginal people. Strategies to improve access and responsiveness of services have been developed, including screening programs to identify Aboriginal people at risk of kidney disease and other chronic health conditions. This strategy includes the addition of Aboriginal Health Education Officers across HNE Health to enable early screening and intervention programs to be developed in conjunction with Aboriginal Medical Service and primary health care providers. It is anticipated that these programs will be available across the area health service over the next five years.

There has been recognition that the development of renal health services for Aboriginal people needs to occur in consultation and partnership with the relevant Aboriginal community controlled medical services and other relevant Aboriginal community organisations. Strategies identified in the plan to address issues include:

- Expanding current screening and early intervention services,
- Developing partnerships with chronic health disease programs eg: Aboriginal Cardiovascular and Diabetes Programs,
- Improving the accessibility and cultural appropriateness of renal health services,
- Developing closer partnerships with Aboriginal controlled health services and other Aboriginal groups and services.

## 10. WORKFORCE PLANNING ISSUES

As part of the development of the Renal Services Plan consideration was given to the workforce implications of the Strategic Directions identified.

*Future Service Directions Impacting on the Workforce:*

### 1. Integration of Renal Clinical services across HNE Health

- Review of staff utilization and resources in implementing and supporting strategies (avoid duplication of staff roles, alignment of roles to strategic direction),
- Clinical Stream management of the workforce,
- Aboriginal health needs and align with HNEH Aboriginal Employment Strategy,
- Support of ED staff in renal management.

### 2. Consolidation of established service models

- Primary vs inpatient models of care and aligned workforce models
- Change in role delineation
- Identification of any service increases, service decreases, new services or deletion of services: Increased plasma exchange therapies, enhanced renal transplantation services, increased donor programs, difficulty maintaining ICU services, increased renal investigations, increased dialysis access surgery
- Expansion of renal services over 5 years, particularly in groups unable to achieve independent dialysis
- Increasing management capability

### 3. Development of an improved model for early intervention

- Capability development required
- Workforce partnerships
- Engagement of existing workforce

### 4. Development of home based dialysis

- Capability development required
- Workforce partnerships
- Engagement of existing workforce

### 5. Collaboration with HNEH and State initiatives

- Integration of clinical service redesign with workforce redesign
- Integration of State-wide strategic direction

## 11. GLOSSARY

**Access:** refers to the creation of a fistula, insertion of a Tenckhoff catheter or subclavian catheter to enable dialysis to take place.

**Automated Peritoneal Dialysis:** the use of an automated machine to warm, deliver and drain the necessary fluid volume over a set number of hours.

**Centre:** interchangeable with Facility or Unit and refers to the building the service is run from.

**Centre Dialysis:** Refers to a unit within a hospital and implies greater input from the renal team and access to tertiary referral services.

**Centre Records:** This refers to data collected within existing clinical units data record systems and collated as part of the service plan development.

**Chronic Kidney Disease:** a condition involving deterioration of renal function which may be progressive but can present suddenly.

**Continuous Ambulatory Peritoneal Dialysis:** involves the exchange of 2-3L of fluid via a surgically inserted abdominal tube, four to five times a day.

**Dialysis:** the process of removing the body's metabolic wastes and excess fluid that would normally be carried out by the kidneys. The two forms of dialysis are haemodialysis and peritoneal dialysis.

**Donor:** Refers to the person donating an organ. A deceased donor is someone who has died but had consented previously to donating his or her organs. Live or living related donor is from someone with a compatible blood group to the receiver who has consented to donating a kidney. Although usually a family member, live donors are not restricted to blood relations.

**End Stage Kidney Disease:** the final stage of renal disease where remaining kidney function is less than 5% and renal replacement therapy is required to sustain life.

**Fistula:** the surgical joining of an artery and a vein usually in the lower arm, to increase circulation through the superficial venous veins to make them larger and stronger allowing easier access for needles in order to perform haemodialysis.

**Haemodialysis:** involves pumping the blood through an external circuit and artificial kidney in order to filter out the waste products before the blood is returned to the body. People on dialysis usually attend treatment three times a week for a minimum of four hours per treatment.

**Home-based Dialysis:** refers to a patient undertaking dialysis in their home with the partial or complete assistance of a helper or carer. Home based dialysis can be either peritoneal or haemo-dialysis.

### **Nocturnal Home Haemodialysis**

Nocturnal home haemodialysis occurs overnight while the patient sleeps. Patients are trained to self-care at home and do not need a carer or family member to assist. Patients will dialyse for 8 hours either every second night or 6 times per week while they sleep.

**Incidence:** the number of new cases per year.

**Peritoneal Dialysis:** a form of dialysis that uses the peritoneal membrane in the abdomen as the filter to remove the wastes and excess fluid that would normally be removed by healthy kidneys.

**Prevalence:** total number of cases at a particular time.

**Relocation:** refers to a patient transferring from their normal place of residence to a regional centre for an indefinite period in order to access treatment.

**Renal Unit:** refers to a facility, which offers a range of renal services other than dialysis. These may include investigations and management of renal disease, surgical intervention and preparation for treatment and transplantation.

**Renal Outreach Service:** Renal Outreach Nursing Service provides specialist nursing care to patients with end stage kidney disease and acts as a resource for generalist nurses, general practitioners, and allied health professional staff involved in the delivery of care to renal patients primarily in the home setting.

**Renal Replacement Therapy:** treatment that replaces the functions of the kidneys and can be haemodialysis, peritoneal dialysis or transplantation.

**Satellite Service/Centre/Unit/Facility:** refers to a facility managed by a parent hospital where people come to access dialysis services. Satellite services usually accommodate more than 4 clients and are staffed. A satellite service can either stand alone or be within an established facility such as a hospital.

**Self-care:** refers to the ability of a client to attend his or her own dialysis treatment without specialist supervision or intervention.

**Transplantation:** the process of removing a functioning kidney from a donor (live or dead person) and placing it in the abdomen of an appropriate recipient.

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## 13. STRATEGIC OBJECTIVES AND STRATEGIC ACTION PLAN

The following pages present HNE Health's Renal Services Strategic Objectives and Strategic Action Plan for the next five years. The Plan details the Strategic Initiatives that will be implemented to achieve the Strategic Objectives.

### **Renal Services Strategic Objectives**

#### **The Renal Services' Vision, Purpose, Key Focus Areas And Strategic Objectives Are Presented As A One-Page Summary.**

The Key Focus Areas are those areas that were considered critical to achieving the Renal Services' Vision. For each Key Focus Area, Strategic Objectives are identified to ensure the Renal Services remain focused on the most important issues and needs.

### **Renal Services Strategic Action Plan**

The Strategic Action Plan identifies performance measure/s for each of the strategic objectives and presents the strategic initiatives (the actions, activities or projects) that will be implemented over the next five years to improve performance, reach targets and achieve key objectives.

Each objective is risk-rated using the HNE Health Risk Matrix (See Appendix Eleven for overview of risk matrix), which is based on the NSW Health Severity Assessment Code (SAC). In rating the strategic objectives the consequences and likelihood of not achieving an objective and the impact on service provision and outcomes for the community were considered. The risk ratings identified for each strategic objective signify the priority placed on achieving each objective and indicate where Renal Services want to be in relation to the objective in five years time. A current risk rating (based on what we are doing now) and a target risk rating (what the risk will be once we have implemented the strategic initiatives) is assessed for each objective.

**VISION: Healthier communities: Excellence in renal healthcare**  
**PURPOSE: Working with our communities to develop and deliver quality renal health services**

**OUR VALUES**

- TEAMWORK
- HONESTY
- RESPECT
- ETHICS
- EXCELLENCE
- CARING
- COURAGE
- COMMITMENT

**Focus Area: Communities, Patients, Families and Carers**  
 To achieve our vision, the key outcomes we must deliver are:

- ❖ Reduced health disadvantage and improved equity of access to services including Aboriginal people
- ❖ Maximise community based care and patient self management
- ❖ Health service experiences that have achieved optimal outcomes and meet or exceed expectations

**Focus Area: External Partners**  
 To deliver the required community outcomes, we need to excel in:

- ❖ Development of partnerships to facilitate common goals in health, education and research
- ❖ Collaboration with partners to achieve integrated care.

**Focus Area: Internal Networking and Processes**  
 To deliver the required community outcomes, we need to excel in:

- ❖ Person-centered care and continuous service improvement
- ❖ Safe and evidence-based renal healthcare
- ❖ Integrated and effective clinical stream
- ❖ Enhanced community support for health promotion, kidney disease prevention and early intervention

**Focus Area: Resource Accountability**  
 To deliver the required community outcomes, we need to excel in:

- ❖ Attracting, prioritizing and allocating resources to best meet health needs
- ❖ Effective management of resources and assets for maximum health benefit.

**Focus Area: Our People, Culture and Capability**  
 (Employees and Contracted)  
 To achieve the desired community outcomes and sustain our ability to change and improve, we need to excel in:

- ❖ Attracting and retaining the required high quality staff
- ❖ Demonstrating innovative renal healthcare through research and education
- ❖ Ensuring a safe and flexible workforce and environment
- ❖ Effective consultation, participation and communication
- ❖ Developing competence, capability, individual accountability and performance

**Abbreviations:**

↓	Decrease by
↑	Increase by
>	Greater than
<	Less than
AMS	Aboriginal Medical Service
CALD	Culturally and Linguistically Diverse
CARI	Caring for Australians with Renal Impairment
CKD	Chronic Kidney Disease
EDTA	Ethylene diamine Tetra-acetic acid disodium salt - Pathology blood tube
EEN	Endorsed enrolled nurse
FTE	Full-time equivalent
GFR	Glomerular filtration rate
GP	General Practitioner
HD	Haemodialysis
HNE	Hunter New England Health
IIMS	Incident Information Management System
JHH	John Hunter Hospital
L	Litre
MI/min	Mils per minute
NGO	Non-Government Organisation
ODRFT	Pathology blood tube
RCA	Root Cause Analysis
URR	Urea Reduction Ratio
Clin Ldr	Clinical Leader
Rnl Coord	Renal Co-ordinator
RM Nth	Renal Manager Northern
NM Com D	Nurse Manager Community Dialysis
Ser Mgr Med	Service Manager Medical JHH
Coord HRRC	Co-ordinator Hunter Renal Resource Centre
Dir Trans	Director Transplantation

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>COMMUNITIES, PATIENTS, FAMILIES AND CARERS</b>							
<b>OBJECTIVE:</b>	To achieve our vision, a key outcome we must delivery is: <b>Reduced health disadvantage and improved equity of access to services, including Aboriginal people</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>C</b>	<b>H</b>
<b>DESTINATION STATEMENT:</b>	<i>People in our communities have confidence in working with us on health service issues and in managing their own health</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>Funding 1,2,3</b>	<b>Priority L,M,H</b>	
Percent of people receiving renal dialysis treatment who are of Aboriginal descent. Percent of people participating in pre-dialysis education following referral to Pre-dialysis Education Program Proportion of people who travel more than one hour for renal dialysis (one way)	↑10%/annum	Annual	<ul style="list-style-type: none"> <li>Establish an In-Centre Dialysis Service at Manning Hospital to assist high dependency renal patients from the Lower Mid North Coast.</li> <li>Increase capacity at the Wansey Centre for Satellite Dialysis services and in-home training provision.</li> <li>Expand and relocate In-Centre Dialysis unit at JHH as per business case</li> <li>Identify a standard approach to equitable service delivery for renal services and address new areas of need e.g. allied health service provision and expansion and new dialysis services, including consideration of Upper Hunter, Moree, Glen Innes and Port Stephens and potential haemodialysis in Multi-Purpose Services.</li> <li>Increase advocacy and education for people of Aboriginal descent, specifically in relation to renal transplants</li> <li>Work collaboratively with Aboriginal and culturally and linguistically diverse communities, medical services and community services/organization</li> <li>Modify the NSW Transport for Health needs assessment tool to incorporate people traveling to renal dialysis.</li> <li>Undertake transport needs assessment with people pre-dialysis and reviewed at 4-8 week intervals.</li> <li>Develop education package for people requiring transport to inform of available options.</li> <li>Engage Community-based transport providers to educate on the needs for people requiring dialysis treatment.</li> <li>Develop processes for appropriate and timely referral of patients to all relevant services eg. Allied health, education, specialists</li> </ul>	Clin Ldr	Dec 07	3	H	
	100%	Annual		NM Com D	Jun 09	3	H	
	< 10%	6 Monthly		Clin Ldr	2010	3	H	
				Clin Ldr	Mar 08	2		
				Dir Trans	Jun 08	1		
				Rnl Co-ord	Jun 08	3	M	
				Rnl Co-ord	Jun 08	1		
				Rnl Co-ord	Jun 08	1		
				Co-ord HRRC	Jun 07	1		
				Rnl Co-ord	Jun 08	1		
		Clin Ldr	Dec 07	1				

Aligns with NSW Health Strategic Directions: 1. Make prevention everyone's business 2. Create better experiences of people using health services 4. Build regional and other partnerships for health. Aligns with NSW Health Draft NSW Renal Dialysis Plan to 2011: KPI 2, KPI 3, KPI 9

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>		<b>COMMUNITIES, PATIENTS, FAMILIES AND CARERS</b>						
<b>OBJECTIVE:</b>		To achieve our vision, a key outcome we must deliver is: <b>Maximise community based care and patient self management</b>					<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>D</b>	<b>K</b>
<b>DESTINATION STATEMENT:</b>		<i>People in our communities are healthier and have fewer health risks</i>						
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>★ Priority L,M,H</b>	
Proportion of patients dialysed at home Number of renal transplants	50%  ↑ 20% /annum (Base-line 21 patients)	Annual  Annual	<ul style="list-style-type: none"> <li>Expand community and outreach capacity to assist patients and carers to manage renal disease as independently as possible.</li> <li>Explore options for enabling respite care for patients, carers and families.</li> <li>Review and develop self-management training programs including peer support programs for people requiring renal dialysis.</li> <li>Enhance the model for transplantation in the Hunter New England area including feasibility of islet transplant</li> <li>Explore the feasibility of innovative community dialysis models including self care models</li> <li>Ensure education programs consider understanding of diverse cultural needs including English language competency and literacy.</li> </ul>	RM Nthn/NM Com D  Clin Ldr  Clin Ldr  Dir Trans  Clin Ldr  Coord HRRC	Dec 07  Dec 07  Mar 09  Jun 08  Mar 10  Dec 08	3  1  3  3  1  1	H    M  M	

Aligns with NSW Health Strategic Directions: 3. Strengthen primary health and continuing care in the community. Aligns with NSW Health Draft NSW Renal Dialysis Plan to 2011: KPI 6

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>COMMUNITIES, PATIENTS, FAMILIES AND CARERS</b>							
<b>OBJECTIVE:</b>	To achieve our vision, a key outcome we must deliver is: <b>Health service experiences that achieve optimal outcomes and meet or exceed expectations.</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>H</b>	<b>I</b>
<b>DESTINATION STATEMENT:</b>	<i>Within our Area, people with the same clinical need access the same type of service, of the same quality in the same timeframe</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>	
Patient Satisfaction Score	↑5% (Over 5 years)	6 monthly	<ul style="list-style-type: none"> <li>Advocate for Renal Dialysis Services to be incorporated into HNE Patient Satisfaction Survey. (including HD)</li> <li>Develop in conjunction with surgery a proposal for enhancement funding for Vascular access services to include employment of vascular surgeons, education and operating room time across entire area</li> <li>Develop and implement a regional vascular access program</li> <li>Extend and explore models of care that include procedural nephrology and private practice partnership for dialysis access</li> <li>Develop a standardised information collection and reporting system including education and ANZDATA</li> </ul>	Clin Ldr	Mar 09	1		
Proportion of eligible patients who receive adequate haemodialysis (URR >65%)	>95%	6 monthly		Clin Ldr	July 07	1		
Proportion of eligible patients who receive adequate peritoneal dialysis	>95%	6 monthly		Clin Ldr	July 07	2		
			Clin Ldr	Mar 08	1			
				Rnl Coord	Mar 08	2		

Aligns with NSW Health Strategic Directions: 2. Create better experiences of people using health services. Aligns with NSW Health Draft NSW Renal Dialysis Plan to 2011: KPI 1, KPI7, KPI 10, KPI 13.

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>EXTERNAL PARTNERS</b>							
<b>OBJECTIVE:</b>	To deliver the required community outcomes, we need to excel in: <b>Development of partnerships to facilitate common goals in health, education and research</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>Q</b>	<b>R</b>
<b>DESTINATION STATEMENT:</b>	<i>Our partnerships deliver benefits to Hunter New England people through shared goals, clearly agreed responsibilities and effective outcomes</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time Frame</b>	<b>◆ Funding 1,2,3</b>	<b>★ Priority L,M,H</b>	
Number of Service agreements or memorandums of understanding with partners in education and research and service delivery	↑ 5% per annum	Annual	<ul style="list-style-type: none"> <li>Achieve and maintain comprehensive consumer partnerships state, national, international and with NGOs eg. Hunter and Northern Kidney Association (HANKA), local water boards and local councils</li> <li>Work in partnership with external health programs that target high risk groups with chronic disease (diabetes, cardiovascular, metabolic disorders, Aboriginal and Culturally and Linguistically Diverse communities)</li> <li>Identify key partners and undertake education with key partners</li> <li>Encourage and support conjoint appointments with Universities</li> </ul>	Rnl Co-ord	Mar 08	1		
				Nth RM	Jun 08	2		
				Clin Ldr	Jun 08	1		
				Clin Ldr	Mar 10	1		

Aligns with NSW Health Strategic Directions: 1. Make prevention everyone's business; 4. Build regional and other partnerships for health



**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>INTERNAL NETWORKING AND PROCESSES</b>							
<b>OBJECTIVE:</b>	To deliver the required community outcomes, we need to excel in: <b>Person-centered care and continuous service improvement</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>D</b>	<b>H</b>
<b>DESTINATION STATEMENT:</b>	<i>We focus on the needs of those who receive our care and regularly evaluate how well we meet those needs</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>	
Patient Satisfaction Score; Patient centered care	↑ 5% (over 5 years) 100%	Annual	<ul style="list-style-type: none"> <li>Demonstrate and respond appropriately to cultural differences by ensuring all staff undertake cultural awareness education</li> <li>Encourage and support all patients to participate in the planning and review of their health care including a needs assessment</li> <li>Offer all patients information and education regarding Respecting Patient Choices / Advanced Care Plan Program</li> <li>Develop strategies to support and educate staff to facilitate the Advance Care Plan Program</li> <li>Develop explicit decision making processes for involving patients in treatment modality options</li> </ul>	Rnl Coord	Dec 08	1		
Percent of complaints resolved within 35 days.		Quarterly		Rnl Coord	Dec 08	1		
		Rnl Coord		Jun 09	1			
		Rnl Coord		Jun 08	2			
		Rnl Coord		Dec 07	1			

Aligns with NSW Health Strategic Direction: 2.Create better experiences of people using health services. Aligns with NSW Health Draft NSW Renal Dialysis Plan to 2011:KPI 8

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>		<b>INTERNAL NETWORKING AND PROCESSES</b>					
<b>OBJECTIVE:</b>		To deliver the required community outcomes, we need to excel in: <b>Safe and evidence-based renal healthcare</b>				<b>Risk Rating</b>	
						<b>Current</b>	<b>Target</b>
						<b>D</b>	<b>K</b>
<b>DESTINATION STATEMENT:</b>		<i>Clinical and support staff have structures and processes to work together to deliver coordinated, consistent healthcare</i>					
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>
Proportion of eligible patients using temporary access at first dialysis (permcath and vascath)	<20%	monthly	<ul style="list-style-type: none"> <li>Renegotiate waiting list priority for dialysis access surgery</li> <li>Develop agreed staffing levels and work loads to ensure safe care.</li> <li>Support enhancements to meet agreed staffing guidelines for dialysis, renal transplantation and plasmapheresis services.</li> <li>Review trends for adverse events</li> <li>Develop a system to identify key adverse events and mechanism for recording IIMS</li> <li>Commence area mortality and morbidity meetings monthly</li> <li>Develop processes for patient safety to be discussed at all staff meetings and action plans developed and initiated</li> <li>Complete and analyse the pilot MRSA Staph aureus Surveillance study for possible area dissemination to all renal services</li> <li>Implement the use of safety fistula needles across the area</li> <li>Improve transplantation outcomes through monitoring and review of new models of practice</li> <li>Develop and implement area wide infection control standards and practices including water quality guidelines</li> <li>Establish and monitor risk register across renal units.</li> <li>Review and implement evidence based programs for Plasmapheresis services.</li> </ul>	Clin Ldr Rnl Coord	Dec 07 Dec 07	1 1	
Number of Vascular access blood stream infections (Rate per 100 patients months)	< 0.8 per 100 patient months	6 Monthly		Clin Ldr Rnl Coord Rnl Coord	Dec 08 Mar 08 Mar 08	3 1 1	H
Rate of peritoneal dialysis catheter infection (peritonitis)	↓5%	Annual		Clin Ldr Clin Ldr	Dec 07 Dec 07	1 1	
Patient survival on dialysis treatment at 1, 3, 5 years.	↑5% (over 5 years)	Annual		Clin Ldr	Dec 07	1	
Patient survival after Renal Transplant at 1, 3, 5 years.	↑5% (over 5 years)	Annual		NM Com D	Jun 08	3	H
Number of plasmapheresis treatments	↑5% /annum	Quarterly		Dir Trans	Jun 08	3	M
				Clin Ldr	Dec 08	3	H
				Rnl Coord Clin Ldr	Jun 08 Jun 08	1 2	
Percent recommendations implemented and reviewed from RCA	100%	Annual		Clin Ldr	Dec 07	1	
				Rnl Coord	Jun 08	2	

Aligns with NSW Health Strategic Direction: 2. Create better experiences of people using health services. Aligns with NSW Health Draft NSW Renal Dialysis Plan to 2011: KPI 4 KPI 5, KPI 14, KPI 15, KPI 16, KPI 17, KPI 18.

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>		<b>INTERNAL NETWORKING AND PROCESSES</b>												
<b>OBJECTIVE:</b>		To deliver the required community outcomes, we need to excel in: <b>Integrated and effective clinical stream</b>					<table border="1"> <tr> <th colspan="2">Risk Rating</th> </tr> <tr> <th>Current</th> <th>Target</th> </tr> <tr> <td style="background-color: orange;">K</td> <td style="background-color: yellow;">R</td> </tr> </table>		Risk Rating		Current	Target	K	R
Risk Rating														
Current	Target													
K	R													
<b>DESTINATION STATEMENT:</b>		<i>We ensure our care is based on best practice and minimises harm</i>												
Measure:	Target	Reporting Timeframe	Initiatives/Actions:	Responsibility	Time frame	◆ Funding 1,2,3	★ Priority L,M,H							
Staff Survey Score: Cooperation within and between teams	↑5% (over 5 years)	Annual	<ul style="list-style-type: none"> <li>Develop renal clinical stream across the area</li> <li>Develop and implement a standardized framework for:                             <ul style="list-style-type: none"> <li>- uniformed data collection system eg. medication card</li> <li>- models of care</li> <li>- policy and procedures</li> <li>- communication and decision-making</li> <li>- education</li> </ul> </li> <li>Ensure all internal service providers (eg. Emergency Dept, ICU, Operating Theatres, Outpatient services) have access to patient data systems</li> <li>Investigate and plan to meet renal IT requirements in compliance with Area IT standards, including IT equipment and support.</li> <li>Interact collaboratively with other clinical streams</li> <li>Support existing processes to engage with chronic care services</li> <li>Develop an area-wide clinical approach to Plasmapheresis Services across HNE Health.</li> </ul>	Clin Ldr Rnl Coord  Rnl Coord  Rnl Coord  Clin Ldr Clin Ldr  Clin Ldr	Mar 08 Jun 08  Dec 10  Jun 08  Jun 08 Dec 08  Jun 08	1 2  2  2  1 1  2								

Aligns with NSW Health Strategic Direction: 3. Strengthen primary health and continuing care in the community

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>INTERNAL NETWORKING AND PROCESSES</b>							
<b>OBJECTIVE:</b>	To deliver the required community outcomes, we need to excel in: <b>Enhanced community support for health promotion, kidney disease prevention and early intervention</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>J</b>	<b>K</b>
<b>DESTINATION STATEMENT:</b>	<i>We embrace all opportunities to prevent disease and promote healthy lifestyle choices</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>♦ Funding 1,2,3</b>	<b>* Priority L,M,H</b>	
Number of disease prevention programs undertaken	↑10% per annum	6 Monthly	<ul style="list-style-type: none"> <li>Develop a comprehensive program for kidney health promotion and initiatives across HNE during Kidney Week</li> <li>Develop in partnership with Population Health and chronic care services health promotion and prevention programs to enable access for people with kidney disease and those people at risk of kidney disease. eg. Referral to Quit Line</li> <li>Collaborate with Aboriginal Medical Services to develop sustainable early intervention programs across area for Aboriginal communities.</li> <li>Develop, implement and review referral pathways for management of CKD (including education programs)</li> <li>Explore options for piloting early screening programs for other high risk groups</li> </ul>	Coord HRRC	Dec 07	3	L	
				RM Nth	Jun 09	2		
				RM Nth	Jun 09	3		M
				Clin Ldr	Mar 08	3		M
				Rnl Coord	Mar 09	1		

Aligns with NSW Health Strategic Direction: 1. Make prevention everyone's business 3. Strengthen primary health and continuing care in the community

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>RESOURCE ACCOUNTABILITY</b>							
<b>OBJECTIVE:</b>	To deliver the required community outcomes, we need to excel in: <b>Attracting, prioritizing and allocating of resources to best meet health needs</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
						<b>D</b>	<b>K</b>	
<b>DESTINATION STATEMENT:</b>	<i>Staff and communities are confident that resources are allocated to meet identified health needs according to agreed priorities</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>	
Percent of high priority initiatives and actions implemented within agreed timeframes	60% per annum	Quarterly	<ul style="list-style-type: none"> <li>Support the representation of HNE renal staff on statewide working parties/advisory groups</li> <li>Implement and monitor the enhancement plan</li> <li>Review overall renal health needs on an annual basis ensuring optimal service provision</li> <li>Support the upgrade/purchase of new technology and treatments In line with best practice evidence.</li> </ul>	Clin Ldr  Rnl Coord Clin Ldr  Clin Ldr	Jun 08 Annual Jun 08 Jun 08 Annual Jun 08 Annual	1  1 1 1		

Aligns with NSW Health Strategic Direction: 5. Make smart choices about the costs and benefits of health services

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>		<b>RESOURCE ACCOUNTABILITY</b>					
<b>OBJECTIVE:</b>		To deliver the required community outcomes, we need to excel in: <b>Effective management of resources and assets for maximum health benefit</b>				<b>Risk Rating</b>	
						<b>Current</b>	<b>Target</b>
						<b>E</b>	<b>N</b>
<b>DESTINATION STATEMENT:</b>		<i>We have systems to ensure that our funding, facilities and other resources support effective health service delivery</i>					
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>
Net cost of service percent variance	0%	Monthly	<ul style="list-style-type: none"> <li>Develop staff skills and understanding of resource accountability through in-service education sessions.</li> <li>Develop and implement a program for the efficient management and replacement of medical and dialysis equipment.                             <ul style="list-style-type: none"> <li>Plasmapheresis machines</li> <li>Haemodialysis and peritoneal dialysis machines</li> <li>Water treatment plants and loops</li> <li>Dialysis chairs</li> </ul> </li> <li>Attract funds to provide                             <ul style="list-style-type: none"> <li>Adequate dialysis machines</li> <li>Adequate dialysis chairs</li> </ul> </li> </ul> <p>Adequate water treatment plant and loops eg. Tamworth, Wansey Centre, Singleton, Muswellbrook and Maitland</p>	Rnl Coord  Rnl Coord  Clin Ldr	Dec 08  Jun 08  Dec 08	1  3  3	H H H M  H M H
Percent asset management and maintenance plans in place	80%	Annual	<ul style="list-style-type: none"> <li>Review and audit facilities to see if they meet appropriate locations and standards incorporating existing statewide Infrastructure Review.</li> <li>Develop Asset Management Plan</li> <li>Identify and provide plan for adequate capital works funding</li> <li>Develop, report and monitor asset inventory and maintenance regime.</li> </ul>	RM Nth  NM Com D  RM Nth NM Com D	Jun 08  Jun 08  Jun 09 Dec 07	2  1 2 1	

Aligns with NSW Health Strategic Directions: 2. Create better experiences of people using health services; Make smart choices about the costs and benefits of health services.

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>OUR PEOPLE, CULTURE AND CAPABILITY</b>						
<b>OBJECTIVE:</b>	<b>Attracting and retaining the required high quality staff</b>					<b>Risk Rating</b>	
						<b>Current</b>	<b>Target</b>
						<b>D</b>	<b>K</b>
<b>DESTINATION STATEMENT:</b>	<i>We have the right people with the right skills, in the right place, at the right time</i>						
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>
Vacancy Rate	3%	Quarterly	<ul style="list-style-type: none"> <li>Promote a management and leadership culture that reflects organisational values and fosters excellent practice.</li> <li>Support strategies for staff recruitment and retention targeting medical officers, rural recruitment, nursing and allied health.</li> <li>Develop and implement a succession plan for senior clinical positions</li> <li>Investigate and develop options for the provision of specialist support services across the area eg. Renal Resource Centre, Aboriginal liaison officer, allied health</li> <li>Revise staffing profiles to ensure appropriate level of skill mix of staff to meet the needs of consumers and communities.</li> <li>Develop processes for professional and financial recognition for renal specialist skills in all disciplines</li> <li>Increase designated renal health positions e.g. nurse practitioner positions Transplantation and Northern</li> </ul>	Clin Ldr Clin Ldr Clin Ldr Rnl Coord Rnl Coord Clin Ldr Rnl Coord	Jun 09 Dec 07 Dec 07 Jun 09 Jun 08 Dec 10 Jun 09	1 3 1 2 2 2 3	H

Aligns with NSW Health Strategic Direction: 6. Build a sustainable health workforce.

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>OUR PEOPLE, CULTURE AND CAPABILITY</b>							
<b>OBJECTIVE:</b>	To achieved the desired outcomes and sustain our ability to change and improve, we need to excel in: <b>Demonstrating innovative renal healthcare through research and education</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>R</b>	<b>V</b>
<b>DESTINATION STATEMENT:</b>	<i>We are recognised nationally and internationally for innovation in clinical, organisational and support services</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>	
Number of quality or research initiatives implemented	↑5% per annum	Annual	<ul style="list-style-type: none"> <li>Encourage and provide opportunities for staff in clinical practice to participate in research opportunities.</li> <li>Develop and review innovative models of care.</li> <li>Support leave to attend conferences and encourage abstract submissions.</li> <li>Develop technological advances and research including clinical studies</li> </ul>	Clin Ldr	Jun 09	3	L	
Number of clinical studies	↑10% (over five years)	Annual		Clin Ldr RM Nth/NM Comm	Jun 09 Jun09	2		
				Clin Ldr	Jun 09 Dec 09	3	L	

Aligns with NSW Health Strategic Direction: 2. Create better experiences of people using health services, 7. Be ready for new risks and opportunities

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>OUR PEOPLE, CULTURE AND CAPABILITY</b>							
<b>OBJECTIVE:</b>	To achieved the desired outcomes and sustain our ability to change and improve, we need to excel in: <b>Ensuring a safe and flexible workforce and environment</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							<b>L</b>	<b>N</b>
<b>DESTINATION STATEMENT:</b>	<i>We actively maintain a safe workplace</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>	
Lost time injury frequency rate	Nil	Monthly	<ul style="list-style-type: none"> <li>Implement best practice in work place health and safety through the monitoring and review of the risk management framework</li> <li>Raise staff awareness of safe service delivery options to maximise a safe working environment eg. Manual handling, Fire safety, CPR, Infection Control</li> <li>Encourage and support flexible workplace agreements</li> </ul>	Rnl Coord  Rnl Coord  Rnl Coord	Jun 09 Annual Jun 08  Jun 08	1  1  1		

Aligns with NSW Health Strategic Direction: 6. Build a sustainable health workforce

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>OUR PEOPLE, CULTURE AND CAPABILITY</b>							
<b>OBJECTIVE:</b>	To achieved the desired outcomes and sustain our ability to change and improve, we need to excel in: <b>Effective consultation, participation and communication</b>						<b>Risk Rating</b>	
							<b>Current</b>	<b>Target</b>
							R	V
<b>DESTINATION STATEMENT:</b>	<i>We have structures and communication systems that effectively involve staff in decision-making and ensure that knowledge is shared</i>							
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>◆ Funding 1,2,3</b>	<b>* Priority L,M,H</b>	
Staff Satisfaction Score Re: Employee engagement	↑5% (over five years)	Bi- annually	<ul style="list-style-type: none"> <li>Develop and utilize telecommunications strategies eg. access to workstations, web, Telehealth and video conferencing and emailing</li> <li>Develop and review effective management, consultation and communication processes for the HNE Renal Services to ensure appropriate input from all services and disciplines within HNE Renal Services.</li> <li>Offer exit interviews for staff that are leaving.</li> <li>Develop staff networks to enable communication, education and peer support.</li> </ul>	Rnl Coord	Jun 08	3	H	
				Rnl Coord	Dec 08	1		
				Rnl Coord	Jun 08	1		
				Rnl Coord	Jun 08	1		

Aligns with NSW Health Strategic Directions: 4. Build regional and other partnerships for health 6. Build a sustainable health workforce

**Renal Services Plan 2007 - 2011**

<b>FOCUS AREA:</b>	<b>OUR PEOPLE, CULTURE AND CAPABILITY</b>						
<b>OBJECTIVE:</b>	<b>Developing competence, capability, individual accountability and performance</b>					<b>Risk Rating</b>	
						<b>Current</b>	<b>Target</b>
						L	V
<b>DESTINATION STATEMENT:</b>	<i>Our staff develop their skills, accept responsibility for their decisions and actions, and are supported to optimise their performance</i>						
<b>Measure:</b>	<b>Target</b>	<b>Reporting Timeframe</b>	<b>Initiatives/Actions:</b>	<b>Responsibility</b>	<b>Time frame</b>	<b>♦ Funding 1,2,3</b>	<b>* Priority L,M,H</b>
Percentage of staff with current performance appraisal	100% (over five years)	Quarterly	<ul style="list-style-type: none"> <li>• Adopt area performance appraisal process including renal specific competencies</li> <li>• Foster training and skill development opportunities to recognise and utilise the skills and experience of renal health staff and provide backfilling relief.</li> <li>• Provide staff access to high quality professional supervision to develop and maintain professional skill base.</li> <li>• Develop professional career pathways and frameworks.</li> <li>• Increase participation in clinical leadership programs and mentor programs.</li> <li>• Develop competency based education and training</li> <li>• Increase participation in mandatory training including cultural awareness training (CALD and Indigenous).</li> <li>• Support and encourage staff with access to study leave and scholarships (including tertiary)</li> </ul>	Rnl Coord	Jun 08	2	
				Rnl Coord	Jun 09	2	
				Rnl Coord	Jun 09	1	
				Rnl Coord	Jun 09	1	
				Rnl Coord	Jun 09	1	
				Clin Ldr Rnl Coord	Jun 09 Jun 08	2	
				Clin Ldr	Dec 08	1	

Aligns with NSW Health Strategic Directions: 6. Build a sustainable health workforce.

## 14. APPENDICIES

### Appendix One - Renal Services Planning Group

#### Membership

The planning group was representative of the range of multidisciplinary health professionals providing primary to tertiary care in rural and urban settings. The membership was:

- Michael Di Rienzo, Director of Operations Acute Networks (Chair)
- Leanne Cutmore, Aboriginal Health Officer, Moree Health Service
- Fergus Fitzsimons, General Manager Acute Services, Tamworth/Armidale
- Alastair Gillies, Nephrologist, Head of Dep't, JHH
- Adrian Hibberd, Director of Transplantation, JHH
- Michael Jameson, President, Hunter and Northern Kidney Association
- Lesley Salem, Nurse Practitioner, Nephrology Dep't JHH
- Stephen May, Nephrologist, Director of Renal Services, Northern,
- Jenny Niddrie, Hunter Renal Resource Centre
- Carmel Peek, Service Manager, Dept of Medicine, JHH
- Jill Telfer, Nurse Educator, Renal Services, Northern
- Paulett Barnes, Dietitian, Northern
- Jane Kerr, Northern Area CVD Coordinator
- Paul Townsend, Acting Director of Nursing, Manning Base Hospital
- Debbie Jagers, Area Co-ordinator, Clinical Networks

#### Plan Development Team

The Plan Development Team oversaw the development of the Renal Services Plan and were also members of the Renal Planning Group. They were:

- Executive Sponsor, Michael Di Rienzo, Director of Operations Acute Networks
- Plan Leader, Sally Bristow, Renal Manager, Northern, Jill Telfer Nurse Educator (January - March 2007)
- Plan Leader, Sally Milson-Hawke, Nurse Manager, Community Dialysis Services
- Matt Dougherty, Planning Officer

## Appendix Two - Key Stakeholders

### Internal Stakeholders

Key clinicians from the following services were consulted:

- Urology services - Dr Steven Clarke/ Dr John Fisher, Dr Somali
- Vascular surgery – Dr Arvind Desphande
- Intensive Care – Dr Ken Havill, Dr C Trethewy / Dr Phillip Hungerford, David White
- Diabetes – Dr Julie Lowe
- Cardiology – Professor Peter Fletcher, Dr G Hibbard, Dr Alex Levendel
- Chronic Disease – Caroline Bailey, Viki Brummell/Jane Kerr
- Diagnostic Imaging – Michael Symmonds/Dr Barry Soans/Dr Paul Thomas, Brad Hansen
- Pathology – Mr Bruce Tually, Neil Horton
- Haematology – Dr Michael Seldon / Dr Arno Enno
- Infection Control – John Ferguson/Sandy Berenger, Helen O’Hara
- General surgical – Professor Stephen Deane/Todd McEwan
- Anaesthetics – Dr Peter Farrell
- OperatingTheatres / Recovery – Carol Dorrington
- Emergency Departments across area – Caroline Hullick, John Kennedy, Ron Hawksford, Nick Ryan
- General Medicine – Dr G Tyler, Dr Chris Levi, Dr Gershu Paul, Dr Peter Finlayson
- Pharmacy – Helen Dowling, Trudi Martin
- Information Technology – Paul Crosby
- 

Other Relevant Services/ Clinicians consulted:

- Patient Support Services – Jenny Carter
- Maitland Hospital – Sandra Platt
- Muswellbrook Hospital - Wendy Horden
- Singleton Hospital - Wendy Mason-Jones
- Moree Hospital – David Quirk, Sharon Nash
- Inverell – Lyn Shands, Stephen Simpson
- Taree Hospital – Tim Mooney/Louise Saville/Dr Dan Connor/Dr P Patel
- Port Macquarie Hospital – Dr Mohan Vattakad/Sharon Gouk
- Tamworth Hospital – Fergus Fitzsimmons, Chris Coombs
- Armidale Hospital – Ms Donna Withnell
- Area Facility Management Service – Mark Austin
- Rehabilitation providers – Dr De Gabrielle, Anna Keys, Ian O’Dea
- Director of Nursing (GNS) – Chris Kewley

### Associated Stakeholders

- Director of Clinical Operations – Nigel Lyons
- Director of Nursing and Midwifery – Jennie West
- Director of Workforce Development – David Dixon
- Director of Corporate Services – Tracey McCosker
- Director of Population Health, Planning – Kim Browne
- Director of Clinical Governance – Kim Hill
- Director of Communication and Stakeholder Engagement –Allison Maxwell
- Director of Operations Acute Networks– Michael Dirienzo
- Director of operations – Primary and Community Networks – Scott McLachlan
- Acute and Non-Acute Network Managers – Cluster Managers

- Allied Health Forum – David Rhodes, Fiona Ord, Deanne Harris, Trudy Wheeldon, Paul Whiting
- Senior Nurses Forum
- Multicultural Health Service
- Aboriginal Partnership Group

#### **EXTERNAL STAKEHOLDERS**

- Statewide Services, NSW Health – Alison Latta, Kathy Meleady
- Hunter and Northern Kidney Association (HANKA) – Michael Jameson
- New England Renal Support Association – Dennis Bucknell (c- Tiffany Coote)
- North Coast Area Health Service - Jane Milz
- Lake Macquarie Private Hospital – Mr Roger Snell
- Ambulance – Steve McPherson, Tim Collins
- University of Newcastle – Professor Michael Hensley/Michael Hazelton
- Mayo Healthcare Group Taree - Mr T Jennison CEO

#### **DIVISION OF GENERAL PRACTICE**

Divisions of General Practice

Delys Brady, Director Integration and Partnerships

- Hunter Urban Division
- Hunter Rural Division
- Barwon Division
- New England Division
- North West Slopes Division

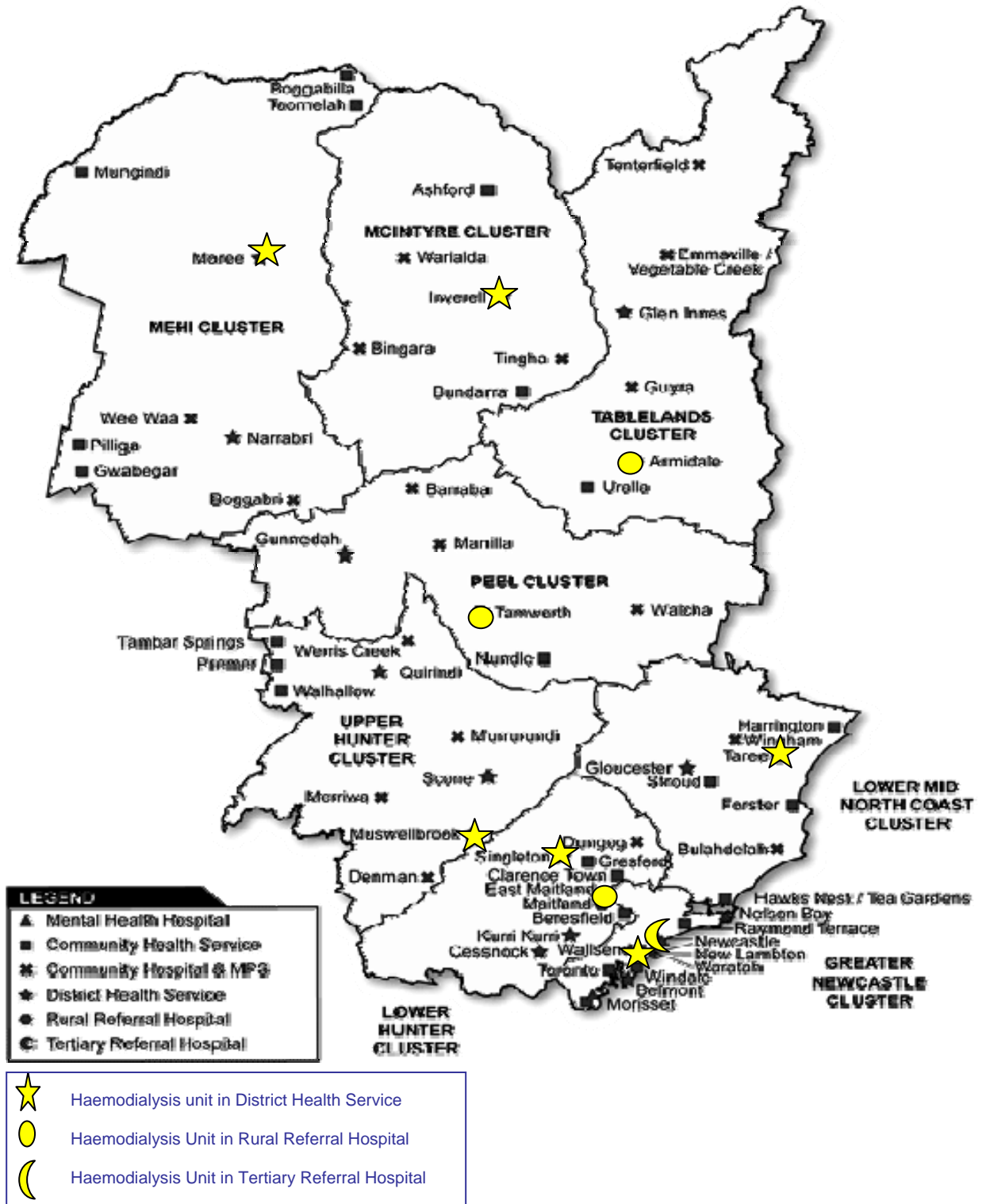
## **Renal Health Services Planning Development Meetings**

Held at Gloucester Golf Club 20 and 27 October 2006

Michael Dirienzo  
Leanne Cutmore  
Fergus Fitzsimmons  
Alastair Gillies  
Adrian Hibberd  
Michael Jameson  
Lesley Salem  
Stephen May  
Jennifer Niddrie  
Carmel Peek  
Jill Telfer  
Paulett Barnes  
Jane Kerr  
Alison Colvill  
Sally Bristow  
Sally Milson Hawke  
Matt Dougherty  
Debbie Jagers  
Kaz Knudson  
Leanne O'Grady  
Angela Green  
Lorraine Thornton/Andrew Hanson  
Della Yarnold  
Sue Carter  
Jenny Jennings

### Appendix Three - HNE Health Renal Services Map

The location of Haemodialysis services across the Hunter New England Health Service has been illustrated in the following cluster map.



## Appendix Four - Current Renal Services: Challenges/ Achievements

Unit	Service	Challenges/ Achievements
<b>Armidale Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Rural Referral – Hospital (acute network)</li> <li>- Managed through the renal services (northern)</li> <li>- 6 chairs, open 6 days per week</li> <li>- 2 staff per shift (RN, EEN), staff rotate through the unit</li> <li>- 24hr medical support (CMO), Generalist physicians</li> <li>- All patients admitted under Dr S May</li> <li>- Renal clinical monthly</li> </ul>	<ul style="list-style-type: none"> <li>- Currently 7 patients (capacity for 12)</li> <li>- Aboriginal patients complex social issues</li> <li>- Redevelopment in August 2006</li> <li>- Eligibility list to work in unit</li> <li>- Small community (staff and patients part of same community)</li> </ul>
<b>Inverell Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Inverell District Hospital (primary and community networks)</li> <li>- Managed through renal services (northern)</li> <li>- 4 chairs, open 3 days per week; 1 shift</li> <li>- 2 staff per shift (RN, EEN), staff rotate through the unit</li> <li>- No medical support on site, GPs provide on call service to hospital</li> <li>- All patients admitted under Dr S May</li> <li>- Renal clinic monthly</li> </ul>	<ul style="list-style-type: none"> <li>- Geographical Isolation- Limited (or no) medical support on site</li> <li>- Unit at capacity (4 patients, inefficient unit)</li> <li>- Accommodating the increased complexity of patients within a community environment</li> <li>- Workforce- recruitment and retention of staff to Inverell</li> </ul>
<b>John Hunter Hospital Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Tertiary Teaching Hospital (acute network)</li> <li>- Managed through the Nephrology Department and Division of Medicine JHH,</li> <li>- Haemodialysis for patients requiring medical and nursing support during dialysis. acute dialysis services, plasmapheresis services</li> <li>- 10 chairs, open 7 days per week, 3 shifts per day (7am to 2am)</li> <li>- Staffing – Nurse Unit Manager (0.5FTE non-clinical), 1 nurse (RN, EEN) per 3 patients – 1 of these staff members is the team leader</li> <li>- 24hr medical support, Nephrologists physicians</li> <li>- All patients admitted under Nephrologists</li> </ul>	<ul style="list-style-type: none"> <li>- Space- Current location is overcrowded and compromises both patient and staff safety</li> <li>- Overtime- 21/8 = 87 hours 14/8 = 68 hours</li> <li>- Workforce – Medical and nursing staff</li> <li>- Operational hours –unsafe, minimal medical support, sickest inpatients</li> <li>- Transport issues for after hours service</li> <li>- Vascular surgery waiting lists</li> </ul>
<b>Tamworth Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Rural Referral Hospital (acute network)</li> <li>- Managed through the Tamworth Rural Referral Hospital and renal services (northern)</li> <li>- 11 chairs, open 6 days per week; 2 shifts per day</li> <li>- Staffing – Nurse Unit Manager (non-clinical), 1 nurse (RN, EEN) per 3 patients</li> <li>- 24hr medical support, Nephrologists</li> <li>- All patients admitted under Dr S May or staff specialist</li> <li>- Private Rooms for clinic appointments (Dr May rooms)</li> </ul>	<ul style="list-style-type: none"> <li>- Patient mix – deals with sickest inpatients and outpatients plus well renal patients requiring treatment in one setting</li> <li>- Ongoing transport issues with some patients traveling long distances</li> <li>- Increasing dependency levels with ageing patient population and increased co-morbidities</li> <li>- Space – current location was not designed for current patient load, particularly patients in beds, inadequate storage facilities</li> </ul>

Unit	Service	Challenges/ Achievements
		<ul style="list-style-type: none"> <li>- Increased age and comorbidities of patients.</li> <li>- Social issues relating to aboriginality</li> <li>- Vascular access waiting list and no vascular surgeon</li> </ul>
<b>Maitland Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Maitland Rural Referral Hospital (acute network)</li> <li>- Managed through the Nephrology Department and Division of Medicine JHH</li> <li>- 10 chairs, open 6 days per week; 2 shifts per day</li> <li>- Staffing - Nurse Unit Manager 1(0.2 FTE non-clinical), 1 nurse (RN, EEN) per 5 patients</li> <li>- Medical support on site, in an emergency</li> <li>- All patients admitted under nephrologists</li> </ul>	<ul style="list-style-type: none"> <li>- Workforce issues ie. &lt; admin hours</li> <li>- Age of patients ie. dependency level</li> <li>- Manual handling ie. chairs</li> </ul>
<b>John Hunter Hospital Renal Ward</b>	<ul style="list-style-type: none"> <li>- Within Tertiary Teaching Hospital</li> <li>- Managed through the Nephrology Department and Division of Medicine JHH</li> <li>- 16 bed unit (acute care) + outliers</li> <li>- Manage acute peritoneal dialysis</li> <li>- Staffing - Nurse Unit Manager (1.0FTE non-clinical), 1 nurse (RN, , EEN, ENs) per 4 patients + team leader (rotating position)</li> <li>- 24hr medical support, Nephrologists physicians</li> <li>- All patients admitted under Nephrologists</li> </ul>	<ul style="list-style-type: none"> <li>- Workforce issues</li> <li>- Managing outliers</li> <li>- Managing length of stay ie. discharge planning</li> </ul>
<b>Muswellbrook Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Muswellbrook District Hospital (primary and community networks)</li> <li>- Managed through Muswellbrook Hospital and the Nephrology Department, Division of Medicine JHH</li> <li>- 3 chairs, open 3 days per week; 1 shift (currently an extra shift 3 days a week- 1 person)</li> <li>- 1 staff per shift (RN), staff rotate through the unit</li> <li>- No medical support on site, GPs provide on call service to hospital</li> <li>- All patients admitted under Nephrologists</li> </ul>	<ul style="list-style-type: none"> <li>- Workforce issues eg. Staffing 11 hour shifts x 3 times per week</li> <li>- Size of unit ? Too small</li> <li>- Staff and patient safety issues, eg. 1 staff member + age and need of patients</li> </ul>
<b>Singleton Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Singleton District Hospital (<i>primary and community networks</i>)</li> <li>- Managed through Singleton Hospital and the Nephrology Department, - Division of Medicine JHH</li> <li>- 4 chairs, open 3 days per week; 1 shift</li> <li>- 1 staff per shift (RN), staff rotate through the unit</li> <li>- No medical support on site, GPs provide on-call service to hospital</li> <li>- All patients admitted under Nephrologist</li> </ul>	<ul style="list-style-type: none"> <li>- Workforce issues ie.1 staff member</li> <li>- Staff and patient safety issues</li> <li>- Age and needs of patients ie. dependency level</li> </ul>

Unit	Service	Challenges/ Achievements
<b>Moree Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Moree District Hospital (<i>primary and community networks</i>)</li> <li>- Managed through the renal services (<i>northern</i>)</li> <li>- 6 chairs, open 3 days per week; 1 shift</li> <li>- 2 staff per shift (<i>RN, EEN</i>), staff rotate through the unit</li> <li>- No medical support on site, GPs provide on call service to hospital</li> <li>- All patients admitted under Dr Steve May</li> <li>- Renal clinic monthly</li> </ul>	<ul style="list-style-type: none"> <li>- Geographical isolation- Strain on resources (health professionals, expense related to distance, traveling, access</li> <li>- 20% local population is Aboriginal</li> <li>- Accommodating the increased complexity of patients within a community environment</li> <li>- Workforce- recruitment and retention</li> <li>- Unit location – also utilized by Recovery/Theatres, requires unit days to fit around theatre schedule</li> </ul>
<b>Nita Reed – Taree Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Community Setting (primary and community network)</li> <li>- Managed through Taree community health service</li> <li>- 8 chairs, open 6 days per week; 1shift</li> <li>- 2 staff per shift (<i>RN,</i>)</li> <li>- medical support via ambulance and Generalist physicians</li> <li>- All patients admitted under Nephrologists/ Physician</li> <li>- Renal clinic- Dr Carney</li> </ul>	<ul style="list-style-type: none"> <li>- No acute dialysis beds at Manning Base Hospital</li> <li>- Building upgrade ie. Inadequate / infection control issues</li> <li>- Manual handling ie. chairs</li> </ul>
<b>Wansey Centre Renal Unit</b>	<ul style="list-style-type: none"> <li>- Within Community Setting (<i>acute network</i>)</li> <li>- Managed through the Nephrology Department, Division of Medicine JHH</li> <li>- 12 chairs, open 6 days per week; 2 shifts per day</li> <li>- 10 home training chairs, open 6 days per week, 1 shift per day</li> <li>- 1 staff member per 6 patients (<i>RN, EEN</i>)</li> <li>- No medical support</li> <li>- All patients admitted under Nephrologist</li> </ul>	<ul style="list-style-type: none"> <li>- Workforce issues ie. extra 3 staff to cover CDx overflow</li> <li>- Dialysis machine ie. excessive hours / age</li> <li>- Manual handling issues ie. chairs and patient dependency</li> </ul>
<b>Home Training Unit</b>	<ul style="list-style-type: none"> <li>- Within Community Setting (acute network)</li> <li>- Managed through the Nephrology Department, Division of Medicine JHH</li> <li>- Provides the majority of HDx and CAPD dialysis training for HNE Health</li> <li>- Haemodialysis – 8 chairs, open 4 days per week</li> <li>- Peritoneal Dialysis- 4 chairs, open 5 days a week</li> <li>- 1staff member per 2 patients (RN)</li> <li>- No medical support - Patients admitted under Nephrologist</li> </ul>	<ul style="list-style-type: none"> <li>- Workforce issues ie. CDx overflow</li> <li>- Quantity versus Quality ie. ? Leading to psycho-social issues</li> <li>- Training time compromised for nocturnal haemodialysis</li> </ul>
	<ul style="list-style-type: none"> <li>- Tertiary Teaching hospitals</li> <li>- Primarily referrals to JHH</li> <li>- Live donor- 10 transplants this year (4 northern HNE patients)</li> <li>- Deceased donors – 8 this year</li> <li>- Mission- to aid in the full rehabilitation of patients with ESRD through renal</li> </ul>	<ul style="list-style-type: none"> <li>- Transplantability assessment</li> <li>- More face to face interaction across the area</li> <li>- Information technology</li> <li>- Transport issues for staff</li> <li>- Increasing live donor transplant dates to fortnightly</li> </ul>

Unit	Service	Challenges/ Achievements
<b>Transplant Unit</b>	<p>transplantation. To assist patients attain optimal health while contending with the illness and disability of renal disease</p> <ul style="list-style-type: none"> <li>- Inpatient and out patient services</li> <li>- 4 bedded unit- renal transplants and light surgical</li> <li>- Westmead (kidney, pancreas)</li> <li>- Transplant staff</li> <li>- NUM (0.5 FTE), 2 CNCs and 1 CNS (JHH)</li> <li>- CNS (Northern renal services)</li> </ul>	<ul style="list-style-type: none"> <li>- Transplantation of highly sensitized recipients</li> </ul>
<p><b>Technical Services Wansey Centre</b></p> <p><b>Tamworth</b></p> <p><b>Merged Services</b></p>	<ul style="list-style-type: none"> <li>- Within community setting (acute network)</li> <li>- Managed through the Nephrology Department, Division of Medicine JHH</li> <li>- Provide technical support and training for all home patients and all Southern Dialysis Units</li> <li>- Provide technical support to private dialysis units under contract through Gambro</li> <li>- Provide technical support to North Coast Area Health service under contract as required</li> <li>- 4 staff (senior electronic technician, 3 electronic technician)</li> <li>- 24 hour on call support for renal units and home patients</li> <li>- Managed maintenance support for dialysis equipment / service including ROs and pre-treatment in the above mentioned areas</li> <li>- Within Rural Referral hospital</li> <li>- Managed through engineering and maintenance</li> <li>- 2 staff (senior electronic technician, electronic technician)</li> <li>- 24 hour on call support for renal units and home patients</li> <li>- Managed maintenance support for dialysis equipment / service in the northern area</li> <li>- Two locations</li> <li>- Managed through medical / renal</li> <li>- 6 staff (2 senior electronic technicians, 4 electronic technicians)</li> <li>- 24 hour on call support for renal units and home patients</li> <li>- Managed maintenance support for dialysis equipment / service in HNEAHS</li> </ul>	<ul style="list-style-type: none"> <li>- Constant stream of revenue from contracts</li> <li>- Increased cost of goods and services due to age of equipment</li> <li>- Proper allocated budget to allow of merging Northern and Southern Technical Departments</li> <li>- Shortage of vehicles</li> <li>- Common work practices already achieved by both technical departments will be enhanced by using common database</li> <li>- Water quality management</li> <li>- Annual leave relief</li> <li>- To merge with renal technicians in the southern area</li> <li>- To move from engineering to medical management</li> <li>- To be provided with permanently allocated vehicle</li> <li>- To merge procedures operational systems</li> <li>- Vehicles issues</li> <li>- More efficient use of staff</li> </ul>

## Appendix Five – Renal Medicine – Role Delineation

This table identifies the role delineation for renal services provided by HNE Health facilities. It also indicates the level of support services required in order to meet the indicated service level.

Level	Description	Minimum Level Of Support Services							
		Path	Phar	Diag Imag	NMed	Anaes	ICU	CCU	Op/s
1-2	As for General Medicine	As for appropriate level in General Medicine							
3	As for Level 3 General Medicine plus renal patients managed by General Physician. May have self care dialysis centre with patients under the care of larger renal unit.	3	3	3	-	2	3	3	2
4	As Level 3 with management of patients by General Physician with interest in nephrology. Nephrologist consultation available. Has Medical Officer <sup>(1)</sup> on site 24 hours. Has NUM <sup>(1)</sup> and experienced RNs <sup>(1)</sup> . Has self care renal dialysis centre with formal link to larger renal unit.	4	4	4	-	4	4	4	3
5	As Level 4 plus Medical Registrar <sup>(1)</sup> on call 24 hours. Specialist Renal Physician. Part-time Unit Director or Coordinator. All types of dialysis available including treatment of patients requiring haemodialysis (two or more patients treated on average at any one time). Renal biopsies performed. Registered nursing at or above 6 hours/patient/day (1:4) desirable. Access to CNC <sup>(1)</sup> is desirable. May have teaching and research role.	5	5	5	5	4	5	4	4
6	As Level 5 plus Medical Registrar <sup>(1)</sup> on site 24 hours. Has Nephrology Department. Formal networking with renal transplantation centre. Has Nephrology Registrar <sup>(1)</sup> . Experienced RNs <sup>(1)</sup> on most shifts. Has teaching and research role.	6	5	6	5	5	6	4	4

<sup>25</sup>NSW Department of Health, (2002), *Guide to the Role Delineation of Health Services, Third Edition 2002, Statewide Services Development Branch.*

<sup>26</sup>NSW Department of Health, (2004), *Rural Companion Guide to the Role Delineation of Health Services, First Edition 2004, Statewide Services Development Branch.*

## Appendix Six – Kidney function – clinical action plan

A draft National Framework for the Management of Chronic Kidney Disease (CKD) has been developed. The framework is for the prevention and management of CKD and involves five progressive stages of treatment and management. Renal Services tend to manage patients in Stages Four and Five.

EGFR ml/min/1.73m <sup>2</sup>	Description	Clinical action plan
≥ 60	No kidney damage or stage 1 CKD (kidney damage* with normal kidney function) Or Stage 2 CKD (kidney damage* with mild decreased kidney function)	Further investigation for CKD may be indicated in those at increased risk <ul style="list-style-type: none"> <li>• Assessment of proteinuria</li> <li>• Urinalysis</li> <li>• Blood pressure</li> </ul> Cardiovascular risk reduction (blood pressure, lipids, blood glucose, smoking, obesity, physical activity)
30-59	Stage 3 CKD: Moderate decrease in kidney function	As above, plus: <ul style="list-style-type: none"> <li>• Monitor eGFR 3 monthly</li> <li>• Avoid nephrotoxic drugs</li> <li>• Prescribe antiproteinuria drugs (angiotensin converting enzyme inhibitors and/or angiotensin receptor blockers) if appropriate</li> <li>• Address anaemia, acidosis and hyperparathyroidism</li> <li>• Ensure drug dosages appropriate for level of kidney function</li> </ul> Consider referral to Nephrologist
15-29	Stage 4 CKD: Severe decreased kidney function	As above plus referral to Nephrologist is usually indicated for preparation for dialysis (including access surgery, education) or transplantations
< 15	Stage 5 CKD: end stage kidney failure	As above plus referral to Nephrologist

Reference: <sup>27</sup>Kidney Check Australia Taskforce (2006), *Kidney Health Australia*, cited at [www.kidney.org.au/assets/documents/eGFR\\_card%20final.pdf](http://www.kidney.org.au/assets/documents/eGFR_card%20final.pdf)

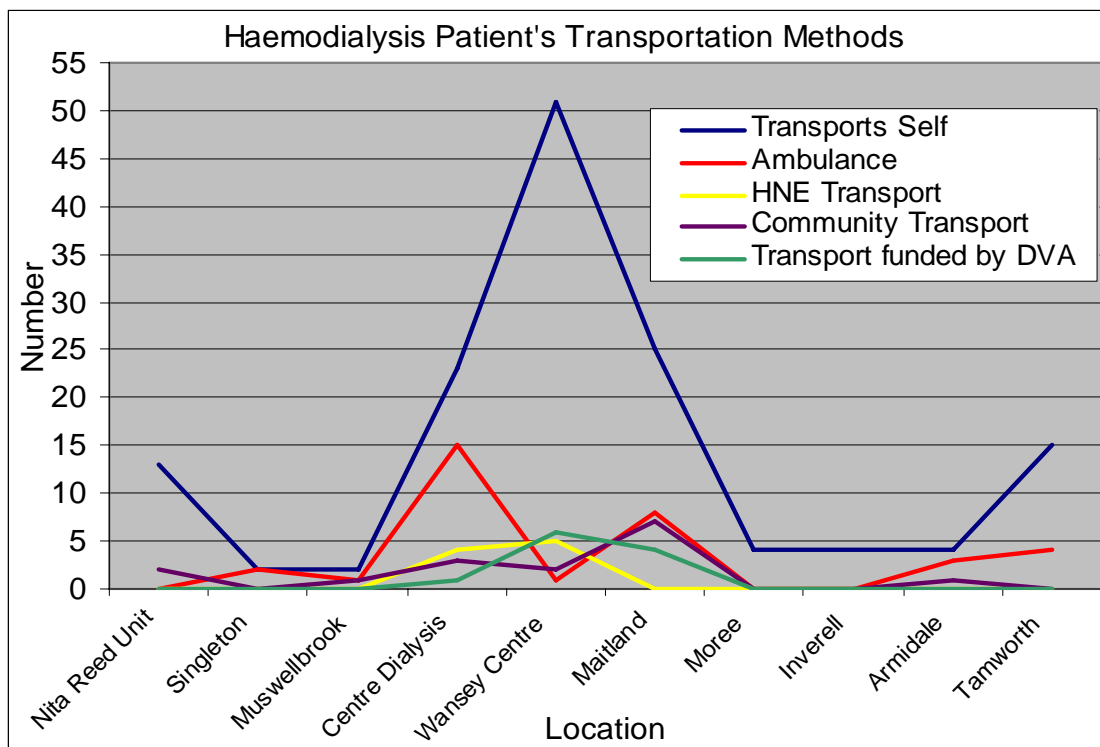
## Appendix Seven - Transport Issues

HNEAHS covers a significant geographic area (over 130,000 square kilometres or 16% of the area of NSW) spanning almost twelve hundred kilometres from north to south, and over eight hundred kilometres from east to west. The area includes many small rural and remote communities as well as populous regional centres. The availability of and access to health-related transport are major issues for the people of the Hunter New England area. A recent Hunter New England (HNE) Health Renal Transport Plan was undertaken for non-emergency health related transport (NEHRT) for patients with End Stage Renal Disease (ESRD) who reside in the Hunter New England area and require maintenance haemodialysis. An analysis of people’s transport modes are outlined in the Figure 17 below.

Extensive consultation as part of the development of the renal transport plan identified major issues in the provision of transport for this group of people included:

- Costs incurred by patients
- Access to transport services
- Area wide Health Transport coordination and communication for renal patients
- Patient assessment for transport needs based on health criteria
- Rostering for dialysis and matching transport to dialysis times
- Need for more diverse options for transport
- Community perception/ expectation of free transport
- Discrimination/ stigmatism against renal patients (chronic patients).

**Figure 19: People’s Transportation methods by Service Unit**



Some key strategies to address these issues identified in the plan included:

- Development of a transport needs assessment tool for renal patients
- Development of a HNEAHS Transport Directory
- Development of an education package for community based transport providers
- Development of a Transport education package for patients
- Quarantining a portion of Area Transport funds for renal patient transport
- Development of an escalation process for transport crisis management
- Establishment of a Renal Transport Coordinator position (funded by NSW Health)
- Development of an audit tool to evaluate customer satisfaction

Key recommendations of the HNE Renal Transport plan included:

- That an agreed percentage of funding for non-emergency health related transport be quarantined for allocation to renal patients.
- That HNE Transport Units manage budgets for renal dialysis transport and develop service level agreements with other transport providers.
- That a position to co-ordinate Renal Transport be established and funded recurrently.
- That NSW Health and NSW Ambulance Service develop a modified eligibility criteria for patient transport services that considers the increasing age and acuity level of the renal patient population.
- That a geographical funding model for NSW Ambulance Services providing services to rural health areas is developed and the population based funding model for high-density population areas is maintained.
- That IPTAAS funding is reconsidered to include a weekly mileage subsidy as opposed to a daily mileage subsidy, e.g. some patients travel up to 300 kms per week to attend dialysis ( three times per week) and currently are ineligible for IPTASS.
- That the Ministry of Transport considers including renal dialysis as an eligibility criteria for the Taxi Transport Subsidy Scheme.

## Appendix Eight: - Aboriginal Health Impact Statement

Title of Policy, Program or Strategy - Hunter New England Renal Services Plan 2007-2011

**Have all items of the checklist been reviewed and answered?**

Yes

**Will this policy, program or strategy significantly affect the health\* of Aboriginal people? (the checklist may assist you to answer this question)**

Yes

***If so, how:***

The Service plan recognises the need for improved services for Aboriginal people and communities. Specific strategies have been developed to improve the accessibility and appropriateness of renal health services and the need for closer partnerships with Aboriginal controlled health services.

**Is this policy, program or strategy likely to lead to a change in the nature or level of resources or health services available for Aboriginal health?**

Yes

***If so, specify:***

It is anticipated that over the five years of the plan that additional resources will be available to address kidney health issues for Aboriginal people. Strategies to improve access and responsiveness of services have been developed, including screening programs to identify Aboriginal people at risk of kidney disease and other chronic health conditions. This strategy includes the addition of Aboriginal Health Education Officers and it is anticipated that these programs will be available across the area health services over the next five years.

### Statement

The health needs and interests of Aboriginal people have been considered, and where relevant, incorporated and appropriately addressed in the development of this health policy, program or strategy.

*Head of Unit name:* Michael Di Rienzo

*Unit name:* Hunter New England Health, Renal Services

**1. Has there been appropriate representation of Aboriginal stakeholders in the development of the policy, program or strategy?**

Yes. There has been an Aboriginal health representative on the Renal Planning Group for the Renal Services Plan.

**2. Have Aboriginal stakeholders been involved from the early stages of policy, program or strategy development?**

Yes

**Please provide a brief description**

An expression of interest was sent to Aboriginal Health calling for representatives from HNE Aboriginal Health workers to be on the planning committee.

The Director of Aboriginal Health was involved in discussions regarding the formation of the Planning Committee for the Renal Services Plan and a number of Aboriginal Health Officers were involved in the planning committee and consultation workshops.

**3. Have consultation/negotiation processes occurred with Aboriginal stakeholders?**

Yes

There has been input from the Director of Aboriginal Health services, consultations with Aboriginal health services staff. The Aboriginal Medical Services (AMSs) were not directly consulted due to a short consultation period.

**4. Have these processes been effective?**

Yes

*Explain:*

Recommendations for addressing Aboriginal health issues have been compiled for the health services plan and key issues identified and documented into the planning process.

**5. Have links been made with relevant existing mainstream and/or Aboriginal-specific policies, programs and/or strategies?**

Yes

**Explain:**

Links have been made to the:

- NSW Aboriginal Health Strategic Plan
- Ensuring Progress in Aboriginal Health in NSW
- NSW Aboriginal Chronic Care Program
- National Service Standards for Renal Dialysis and Transplant Services

**6. Has the policy, program or strategy been endorsed by the NSW Aboriginal Health Partnership/Local Aboriginal Health Partnership where required?****Comments:**

N/A

**Contents of the Policy, Program or Strategy****7. Does the policy, program or strategy clearly identify the effects it will have on Aboriginal health outcomes and health services?**

Yes

**Comments:**

The Services plan recognises the need for improvements to renal health services for Aboriginal people across the Hunter New England region. There is also recognition of the need for additional services for Aboriginal people and communities to be developed in partnership with Aboriginal community controlled medical services and other Aboriginal groups and services.

Current issues identified in the plan include

- Recognition of the health disadvantage within Aboriginal communities
- Chronic health needs particularly in relationship with diabetes and cardiovascular disease
- Access to health services, particularly in rural and remote area
- Early identification, screening and treatment of kidney disease

**8. Have these effects been adequately addressed in the policy, program or strategy?**

Yes

*Explain:*

There has been recognition that the development of renal health services for Aboriginal people needs to occur in consultation and partnership with the relevant Aboriginal community controlled medical services and other relevant Aboriginal community organisations.

Strategies identified in the plan to address the issues include

- Expansion of current screening and early intervention services
- Developing partnerships with chronic health disease programs eg: Aboriginal Cardiovascular and Diabetes Programs
- Improving the accessibility and appropriateness of renal health services
- Developing closer partnerships with Aboriginal controlled health services and other Aboriginal groups and services

9. **Are the identified effects on Aboriginal health outcomes and health services sufficiently different for Aboriginal people (compared to the general population) to warrant the development of a separate policy, program or strategy?**

No

*Explain:*

The Hunter New England Renal Services Plan outlines the broad direction for renal health services in the region. Aboriginal people are able to access renal services that are appropriate to their needs through existing health services. The plan recognises that there is a need for specific strategies to identify Aboriginal people with chronic health conditions and provide culturally appropriate health services to ensure their access to appropriate care and treatment.

In addition, it is recognised that the health and wellbeing of Aboriginal people is dependent on the historical, physical, cultural and social factors and that the kidney health needs of Aboriginal people need to be addressed as part of strategies to address local community health issues and in particular the chronic health issues facing Aboriginal communities. This has been recognised in the HNE Chronic Diseases Plan and needs to be included as part of the Hunter New England Aboriginal Health Services Plan.

#### Implementation and Evaluation of the Policy, Program or Strategy

10. **Will implementation of the policy, program or strategy be supported by an adequate allocation of resources specifically for its Aboriginal health aspects?**

**Describe**

The plan recognises the need for additional staffing and resources to meet the needs of Aboriginal people and communities. There is recognition of the need to work closely with community controlled Aboriginal health services and chronic diseases services.

11. **Will the policy, program or strategy be implemented in partnership with Aboriginal stakeholders?**

Yes

**Briefly describe the intended implementation process**

The development of initiatives in the Service Plan is dependent on partnerships with Aboriginal stakeholders across the region. Partnerships will need to be developed with front line health clinicians for Aboriginal clients, particularly AMSs.

12. **Does an evaluation plan exist for this policy, program or strategy?**

Yes

The Service plan will be monitored on an ongoing basis as part of the Balanced Scorecard approach. Measures have been identified to monitor progress on an ongoing basis.

13. **Has it been developed in conjunction with Aboriginal stakeholders?**

**Briefly describe Aboriginal stakeholder involvement in the evaluation plan**

N/A

## Appendix Nine – Alignment of Renal Services Plan to NSW Health Directions

NSW Health Strategic Directions	NSW Health Strategic Objectives
1. Make prevention everyone's business	<p>1.1 Support individuals and the community in achieving and maintaining health through a whole-of-government approach, effective engagement with health care teams and the community, and the use of evidence-based research and data.</p> <p>1.2 Identify and apply incentives and levers to promote the health of the community from both within and outside the health system (eg: legislation, regulation, pricing, health impact assessments of policy).</p>
2. Create better experiences of people using health services	<p>2.1 Implement models of care that improve access, safety and predictability for health consumers and that provide an integrated journey through the health system, with an initial focus on older people, those who have cancer or poor mental health, or those who are in need of ambulance services, emergency admission or elective surgery</p> <p>2.2 Ensure continuous improvements in the health consumer experience and in the quality of health services by using information and evidence from consumer feedback and health care quality reporting systems</p> <p>2.3 Facilitate the improved transfer of health consumer data and information across the continuum of care, including the use of a core dataset</p>
3. Strengthen primary health and continuing care in the community	<p>3.1 Improve the health care provided to the general community and vulnerable communities and reduce demand on inpatient services through better integration of primary health, continuing care and emergency services</p> <p>3.2 Expand early intervention programs</p> <p>3.3 Expand supported self-management in the care of people with chronic health conditions including mental illness</p>
4. Build regional and other partnerships for health	<p>4.1 Lead regional planning and implementation for the health and wellbeing of people across agencies and levels of government, as well as non-government organisations, with an initial focus on aged care, mental health, child health and Aboriginal health</p> <p>4.2 Effectively engage providers and consumers of health services, and other members of the community, in the development of policies, plans and initiatives for the provision of health services</p>
5. Make smart choices about the costs and benefits of health services	<p>5.1 Develop a Health Investment Strategic Framework which includes principles to support investment and divestment decisions</p> <p>5.2 Align clinical resource allocation with identified investment priorities</p> <p>5.3 Align corporate resource allocation with identified investment priorities</p>
6. Build a sustainable health workforce	<p>6.1 Ensure NSW Health is an employer of choice</p> <p>6.2 Ensure the health workforce is aligned with the health needs of the community and NSW Health's Strategic Directions– 'right person, right skills, right place, right time</p> <p>6.3 Strengthen staff capability to provide patient-focussed care through a focus on workplace and professional cultures and through improving staff support</p>
7. Be ready for new risks and opportunities	<p>7.1 Position NSW Health for the Council of Australian Governments' health reform and productivity agendas and other emerging health reforms</p> <p>7.2 Promote closer alignment of teaching and research with NSW Health's strategic directions</p> <p>7.3 Build NSW Health's capacity in environmental scanning and risk management</p>

## NSW Health Directions

<b>HNE Health Balance Scorecard Objectives Mapped to the NSW Renal Services Plan 2007-2011</b>				
<b>HNE Renal Service Objectives</b>		<b>Draft NSW Renal Dialysis Plan to 2011</b>		<b>NSW Health Strategic Directions</b>
Reduced health disadvantage and improved equity of access to services including Aboriginal people	CPFC 1	2. Adequate patient preparation for dialysis 4. The patient experience	KPI 2 KPI 3 KPI 9	1.1, 2.1, 4.1
Maximised community based care and patient self management	CPFC 2	2. Adequate patient preparation for dialysis	KPI 6	3.1, 3.3
Health service experiences that have achieved optimal outcomes and meet or exceed expectations	CPFC 3	1. Appropriate pre-dialysis planning 3. Satisfactory vascular access 5. Adequacy of dialysis	KPI 1 KPI 7 KPI 10 KPI 13	2.1, 2.2, 2.3
Development of partnerships to facilitate common goals in health, education and research	EP 1			1.1, 1.2, 4.1, 4.2
Collaboration with partners to achieve integrated care	EP 2			4.1, 4.2
Person-centered care and continuous service improvement	INP 1	4. The patient experience	KPI 8	2.1, 2.2, 2.3
Safe and evidence-based renal healthcare	INP 2	2. Adequate patient preparation for dialysis 6. Dialysis complications  7. Patient survival	KPI 4 KPI 5 KPI 14 KPI 15 KPI 16 KPI 17 KPI 18	2.1, 2.2
Integrated and effective clinical streams	INP 3			3.1
Enhanced community support for health promotion, kidney disease prevention and early intervention	INP 4			1.1, 1.2, 3.2
Attracting, prioritizing and allocating resources to best meet health needs	RA 1			5.1, 5.2
Effective management of resources and assets for maximum health benefit.	RA 2			2.3, 5.1, 5.2
Attracting and retaining the required high quality staff	OPCC 1			6.1, 6.2, 6.3
Demonstrating innovative renal healthcare through research and education	OPCC 2			2.1, 7.1, 7.2
Ensuring a safe and flexible workforce and environment	OPCC 3			6.1, 6.3
Effective consultation, participation and communication	OPCC 4			4.2, 6.3
Developing competence, capability. Individual accountability and performance	OPCC 5			6.3

**Appendix Ten - HNE Health Risk Matrix**

CONSEQUENCE \ LIKELIHOOD	Serious	Major	Moderate	Minor	Minimum
Frequent	A	B	J	P	S
Likely	C	D	K	Q	T
Possible	E	H	L	R	U
Unlikely	F	I	N	V	X
Rare	G	M	O	W	Y

Probability	Definition
Frequent	Is expected to occur again either immediately or within a short period of time (likely to occur most weeks or months)
Likely	Will probably occur in most circumstances (several times a year)
Possible	Possibly will recur – might occur at some time (may happen every 1 to 2 years)
Unlikely	Possibly will recur – could occur at some time in 2 to 5 years
Rare	Unlikely to recur – may occur only in exceptional circumstances (may happen every 5 to 30 years)

**LIKELIHOOD TABLE**

RISK ESCALATOR/ACTION REQUIRED
<p><b>Extreme Risk Escalate risk to Chief Executive</b>  <b>SAC1</b> immediate action required – Reportable Incident Brief (RIB) for all SAC 1 incidents must be forwarded to the DoH within 24 hours. A Privileged Root Cause Analysis (RCA) investigation must be undertaken for all Clinical SAC 1 incidents with a report being submitted to the DoH.</p> <p><b>High Risk Escalate risk to Director</b>  <b>SAC2</b> need to notify senior management. Detailed investigation required. Ongoing monitoring of trended aggregated incident data may also identify and prioritise issues requiring a practice improvement project.</p> <p><b>Medium Risk Escalate risk to Service or Hospital Manager</b>  <b>SAC3</b> management responsibility must be specified – Aggregate data then undertake a practice improvement project. <b>Exception</b> – all financial losses must be reported to senior management</p> <p><b>Low Risk Escalate risk to immediate supervisor</b>  <b>SAC4</b> manage by routine procedures – Aggregate data then undertake a practice improvement project</p> <p>NB:                      RIB reports are completed for SAC 2, 3 or 4 incidents if there is the potential for media interest or they require direct notification under legislative reporting or policy directives.</p>

**ACTION REQUIRED TABLE**

**CONSEQUENCES TABLE**

	<b>Serious</b>	<b>Major</b>	<b>Moderate</b>	<b>Minor</b>	<b>Minimum</b>
<b>CLINICAL CONSEQUENCE</b>	<p>Patients with <b>Death</b> unrelated to the natural course of the illness of the illness and differing from the immediate expected outcome of the patient management or:</p> <p><b>Suspected suicide</b>  <b>Suspected homicide</b>  <b>National Sentinel Events</b></p> <ul style="list-style-type: none"> <li>-Procedures involving the wrong patient or body part</li> <li>-Suspected suicide in hospital</li> <li>-Retained instruments</li> <li>-Unintended material requiring surgical removal</li> <li>-Medication error involving patient death</li> <li>-Intravascular gas embolism</li> <li>-Haemolytic blood transfusion</li> <li>-Maternal death associated with labour and delivery</li> <li>-Infant discharged to the wrong family</li> </ul>	<p>Patients suffering a <b>major permanent loss of function (sensory, motor, physiologic or psychological)</b> unrelated to the natural course of the illness and differing from the expected outcome of patient management or any of the following:</p> <ul style="list-style-type: none"> <li>• Suffering significant disfigurement as a result of the incident</li> <li>• Patient at significant risk due to being absent against medical advice</li> <li>• Threatened or actual physical or verbal assault of patient requiring external or police intervention</li> </ul>	<p>Patients with <b>Permanent reduction in bodily functioning (sensory, motor, physiologic, or psychological)</b> unrelated to the natural course of the illness and differing from the expected outcome of patient management or any of the following:</p> <ul style="list-style-type: none"> <li>• Increased length of stay as a result of the incident</li> <li>• Surgical intervention required as a result of the incident</li> </ul>	<p>Patients requiring Increased level of care including:</p> <ul style="list-style-type: none"> <li>• Review and evaluation</li> <li>• Additional investigations</li> <li>• Referral to another clinician</li> </ul>	<p>Patients with <b>No injury or increased level of care or length of stay</b></p>
	<b>CORPORATE CONSEQUENCE</b>	<p><b>Community:</b> Childhood vaccination coverage of target groups fall below levels where epidemics can occur. Inadequate planning and preparation for the Avian Influenza Pandemic. Failure to reduce the risk of Chlamydia transmission in the community. Failure to reduce the gap in health and well being between Aboriginal and Non-Aboriginal people.</p>	<p><b>Community:</b>                      Failure to reduce childhood obesity rates. Inadequate compliance with Smoke Free Environment Act and Tobacco Regulations in terms of Public Health Act. Failure to use Population Health information in agency decision making. Breakdown in organisational capacity to identify, assess and respond to Aboriginal Health priorities.</p>	<p><b>Community:</b>                      Failure to influence main stream managers to take responsibility for integrated service delivery to the Aboriginal Population which results in core business issues not being incorporated into appropriate operational committees and expert working groups.</p>	<p><b>Community:</b>                      Heightened Community Concern, Cluster Manager review leading to service improvement.</p>
<p><b>Reputation and Partnerships:</b> Loss of Reputation or Image. External Investigation or Ministerial Inquiry</p>		<p><b>Reputation and Partnerships:</b> Public Outrage, Media Outcry. NSW Health Inquiry. Failure to meet health service standards and loss of accreditation.</p>	<p><b>Reputation and Partnerships:</b> Loss of Consumer Confidence. CE Internal audit or review. Regulatory Breach or High Priority Improvement Notice.</p>	<p><b>Reputation and Partnerships:</b> Heightened Consumer Concern, Review or assessment that identifies system deficits that need /rectification.</p>	<p><b>Community and Partnerships:</b> Consumer annoyance or not related to safety, quality or clinical outcomes</p>
<p><b>Staff:</b> Death of staff member related to work incident, or suicide, or hospitalisation of 3 or more staff</p>		<p><b>Staff:</b> Permanent injury to staff member, hospitalisation of 2 staff, or lost time or restricted duty or illness for 2 or more staff or pending or actual WorkCover prosecution, or threatened or actual physical or verbal assault of staff requiring external or police intervention</p>	<p><b>Staff:</b> Medical expenses, lost time or restricted duties or injury / illness for 1 or more staff</p>	<p><b>Staff:</b> First aid treatment only with no lost time or restricted duties</p>	<p><b>Staff:</b> No injury or review required</p>

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