

Report:

NSW Renal Nursing Education Survey, 2008

Prepared by the Workforce, Education & Training Nursing Sub-Group

GMCT Renal Services Network

EXECUTIVE SUMMARY

This survey was undertaken by the Workforce, Education & Training (WET) Nursing Sub-Group of the Greater Metropolitan Clinical Taskforce Renal Services Network (RSN). In response to concerns that there are insufficient education programs for those wishing to undertake further clinical studies, the group undertook a review of education programs available to NSW nurses. This revealed a wide range of options were, in fact, available. A survey was then undertaken of all renal nurses in NSW to identify whether the available programs meet their needs, and to identify key barriers and enabling factors for undertaking further studies. The Survey had 382 respondents (estimated 48% response rate). The analysis of the survey focused more on registered nurses (RNs) and endorsed enrolled nurses (ENs), than on RNs working in more senior positions.

Of the RN respondents, 44% were considering undertaking further education in the next 5-10 years, and 97% of these felt the list of available courses met their study needs. Of the EN respondents, 53% were considering undertaking further education in the next 5-10 years, and 79% felt the single course available would meet their study needs. Since the release of the Renal Nursing Education Survey in October 2008, the only available course for ENs has been put on-hold. The survey identifies a real need for access to such EN programs, and efforts should be made to make these available.

Nurses working beyond the metropolitan centres are at least as interested in undertaking further studies as their metropolitan colleagues. On-line education has assisted non-metropolitan nurses to undertake further studies, however the only EN course in NSW has been offered face-to-face in Sydney, and is not accessible for those living long distances from Sydney.

The results from the Survey have led to the following recommendations:

- To work with NSW TAFE and with NSW Health Nursing and Midwifery Office (NaMO) to re-establish a suitable course for ENs.
- To work with NaMO to provide scholarship programs for ENs to undertake advanced courses, and encourage EN study leave programs in Area Health Services similar to those available for RNs.
- To circulate this report to all renal units in NSW, and encourage greater support for renal nurses undertaking further education.
- To raise the issue of EN renal courses with leaders in nursing education in NSW and other states, and to identify strategies for establishing access to EN training for nurses outside the Sydney area.

1. Introduction

It is estimated¹ that numbers of dialysis patients in NSW are likely to increase each year at a rate of around 5%. In a climate of worldwide nursing shortages, this cumulative increase raised concerns within the Renal Services Network about the ability of the workforce in NSW to meet predicted demand.

A workshop was held in 2005 where renal nurses identified their concerns with current and future staffing shortages and workload in haemodialysis units. These problems will increase intolerably over the next 10 years due to the expected increase in demand for haemodialysis services - and the workshop participants proposed a range of strategies to manage the problem.² The focus of the strategies was

- a) to change the way haemodialysis care is provided, to make better use of resources, and
- b) to encourage recruitment and retention of nursing staff by assisting career development for registered nurses (RNs) and endorsed enrolled nurses (ENs) in renal nursing. A part of this strategy was to support education opportunities for nurses seeking a career path in renal nursing.

In 2007, Dr Shelley Tranter undertook a review of all formal education programs available to NSW nurses. There were nine programs available for registered nurses to gain further qualifications, and one program available for enrolled nurses. The Workforce, Education & Training (WET) Nursing Sub-Group of the GMCT Renal Services Network wanted to determine whether these available programs meet the needs for nurses seeking further education, and also to find out what else nurses require to encourage them to undertake further education.

A survey was undertaken in nursing staff in all renal units in NSW, in October 2008, that aimed to identify:

- The level of demand for post-grad RN training and for EN training in NSW, and
- Gaps in education resources for career development in renal nursing, and barriers to obtaining further education.

2. Method

A small working group of the Renal Services Network's WET Nursing Sub-Group developed a survey which was circulated to all renal units and dialysis centres in NSW in October 2008 (See Appendix II). The list of all formal renal education programs available to NSW nurses was circulated with the survey. Prior to releasing the survey, the survey instrument was tested on nurses at St George Hospital and slightly modified to improve the reliability and validity of the questions.

In effort to achieve a good response rate, members of the project team undertook to identify a key nurse in each location who would be willing to drive the survey locally. In order to identify the potential total respondents, the contact persons for each renal unit were asked to provide the numbers of nurses working in their unit who were asked to complete the survey – and were encouraged to achieve a good response rate. Also the survey was widely promoted in the GMCT Newsletter and NSW Nurse Educators Group, so all would be aware of the purpose and potential use of the survey. Renal nurses working in the private sector were also invited to participate.

Responses were collected by a contact person for each site and posted to the Renal Services Network Manager by 24 December 2008, for data entry and analysis.

¹ Gibberd, R and Martin A, *NSW Renal Dialysis Projections: Working paper for Renal Dialysis Projections Reference Group*, Health Services Research Group, University of Newcastle, February 2004

² Chiarella, M and Westgarth, F *Report from the Models of Care Workshop for Haemodialysis Nurses*, NSW Health & Greater Metropolitan Clinical Taskforce, December 2005

3. Results

Response Rate

Responses were received from 382 renal nurses from public and private services.

For the purpose of this report, the respondents have been grouped into three sub-groups (See Table 1.):

- Registered nurses (RNs), who provide the bulk of patient care
- Endorsed enrolled nurses (ENs), and
- Senior nurses, ie. those registered nurses employed in more senior positions that involve education and management, as well as clinical nurse specialists and clinical nurse consultants.

TABLE 1: Responses according to Nursing Sub-Groups

Category of Respondent	Responses	Percentage
Registered Nurses	237	62%
(Endorsed) Enrolled nurses	45	12%
Senior Nurses	98	26%
Total (incl. 2 missing values)	382	100%

It was anticipated that a high proportion of the “senior nurses” would have already engaged in their further education – and this assumption proved true.

Of the respondents, 86% were identified as dialysis nurses (N=328/382). The Australian and New Zealand Dialysis Workforce Survey³ (ANZDWS) reports there are 603 registered nurses and 82 endorsed enrolled nurses working in dialysis units in NSW. Based on these figures, the response rate for the Renal Services Network’s education survey was approximately 48%.

Demographics of Response Cohort

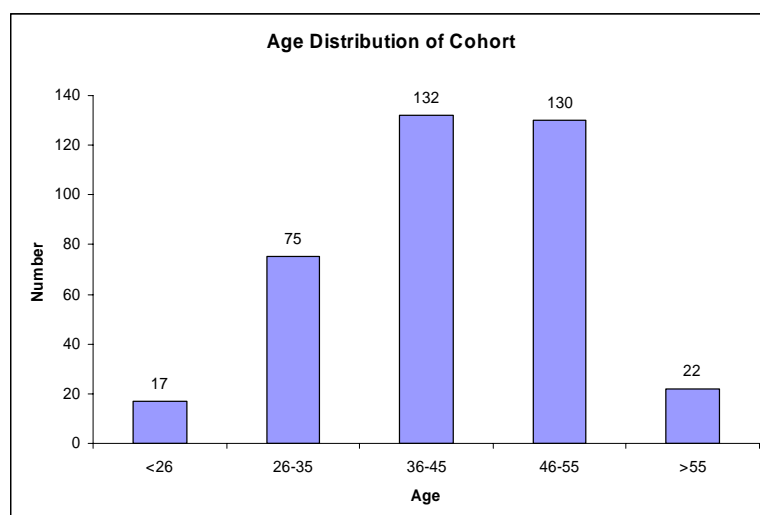
Characteristics of the respondents were identified in terms of a) gender; b) age, and c) workplace location. We were unable to compare these with the ANZWS, because that survey used different criteria for its data collection

a) The survey respondents were 12% males (N=44/373) and 82% females (N=329/373).

b) The age distribution of respondents is shown in Figure 1. Respondents were grouped into age-categories of: 25 years or less (4.5%), 26 to 35 years (20%), 36 to 45 years (35%), 46 to 55 years (35%), and 56 years and over (6%).

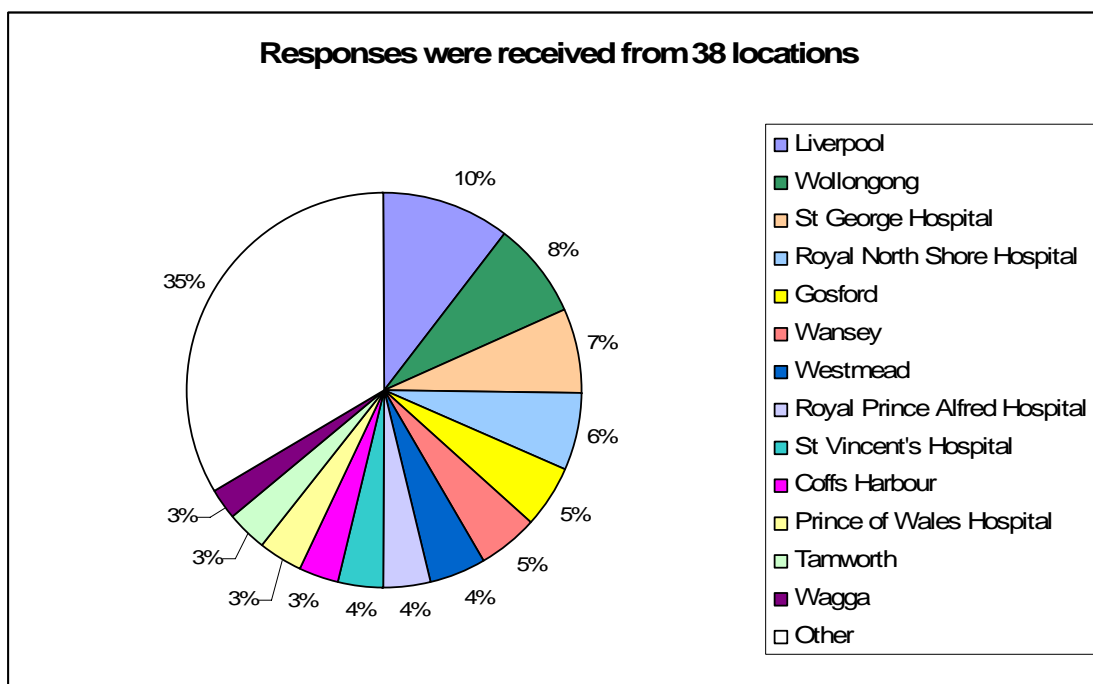
c) Responses were received from 38 workplace locations. The full list of locations and response rates is provided in Appendix I. The response rates varied for different locations, and some sites were under-represented. Of the total cohort, 65% of the responses (N=254/382) came from 13 of the facilities (See Figure 2).

Figure 1: Age distribution for the cohort



³ Bennett PN, McNeill L & Polaschek N. 2009. *The Australian and New Zealand Dialysis Workforce Survey*. Melbourne. Renal Society of Australasia.

Figure 2: Location of respondents, identifying those with response from ten or more nurses.



For the analysis of this report, the sites have been sub-grouped into Metropolitan and non-Metropolitan locations, as this reflects ease of access to tertiary referral hospitals. Metropolitan areas have been defined as Sydney Basin, Newcastle, Wollongong, and the Central Coast. The remaining facilities have been described as non-Metropolitan. On this basis, 65% of the respondents were from metropolitan locations, and 35% were from non-Metropolitan locations (See Table 2.)

TABLE 2: Distribution of survey respondents, by nursing position and by workplace location

Location:	(E)EN	% of EN resps	RN	% of RN resps	Senior	% of Senior Nurse resps	Total	% of all resps
Metropolitan	23	51%	152	64%	71	72%	248	65%
Non-Metropolitan	22	49%	85	36%	27	28%	134	35%
Grand Total ⁴	45		237		98		382	

Only 6% of the respondents were ward staff, and only eleven of the 237 RN respondents (5%) worked in the wards. This indicates underrepresentation in the survey responses from this group of renal nurses.

Prevalence of nurses with renal specialty qualifications

52% of all the respondents (N=198/382) had completed further education or were currently undertaking further education. As expected, a high proportion of the senior nursing group, 76% (N=74/98) had completed or were currently undertaking further education. Of these senior nurse respondents, 49% had a Graduate Certificate, 7% had a Graduate Diploma and 12% had their Masters Degree.

TABLE 3: Types of courses favoured by RNs

Qualification	Total	Percent
Grad. Certificate	78	33%
Grad. Diploma	12	5%
Advanced Diploma	6	3%
Masters	1	
Other	9	4%
No higher qualification stated	128	54%

⁴ 2 Missing values

Of the **RN sub-group, 39%** had completed further education (N=93/237). The types of qualifications, and frequencies are listed above in Table 3. The Graduate Certificate appeared to be the most desirable of higher qualifications for RNs.

Of the **EN sub-group, 20%** said they had completed further education (N=9/45). These EN respondents mostly had an Advanced Diploma (N=8/45).

Only a small proportion of the respondents, 8%, were currently undertaking further education (N=29/382). Six of these had already completed other post-graduate qualifications.

Future demand for renal nursing specialty education

Of the total cohort, 40% were considering undertaking further education in renal nursing over the next 5-10 years. It was noted that 5% had already done other post-graduate education (N=17/382). Review of sub-groups found that 44% of RNs and 53% of ENs were considering undertaking further education over the next 5-10 years (See Table 4.)

TABLE 4: Proportion of each nursing sub-group considering further studies in the next 5-10 years⁵.

Sub-Group	Total Respondents	Considering further studies	Percent	95% Confidence Interval
RN Respondents	237	105	44%	38%-51%
EN Respondents	45	24	53%	38%-68%
Senior Nurses	98	24	25%	16%-34%
TOTAL	382	154	40%	35%-45%

The proportion of renal nurses without further education and who were not seeking to commence further education in the next 5-10 years was low for both RNs and ENs (11% and 13%, respectively).

Adequacy of currently available renal specialty post-graduate courses

All respondents who were considering undertaking further studies were asked to review the attached list of available courses. Of those wishing to study further, **91.7% were satisfied by the courses on offer** (95%CI: 87.1% – 96.4%). This compared with a slightly lower level of satisfaction in those not wishing to study further (85.6% (95%CI: 80.3% - 91.0%)), however the difference was found to be not statistically significant, and overall it can be assumed that the range of available courses meets the needs of the renal nurses.

Of the RNs considering undertaking further studies and who responded to this question, **97% felt the attached list of available courses met their study needs** (N=88/91). Unfortunately, 13% of the group of RNs considering undertaking further studies did not respond to this question (N=15/106). The following comments were provided from those few RNs who felt the available courses do not meet their needs:

Does not describe course contents - interested in renal public health issues

More face to face teaching required

No course covering Peritoneal Dialysis

For the twenty-four ENs considering undertaking further studies, 79% of those who responded (N=15/19) felt the attached list of available courses meets their study needs. There were 5 of this group who did not respond to this question (22%, N=5/24). Comments provided from several of the ENs who claimed the available courses do not meet their needs followed a similar pattern: What they require is

a) renal courses for ENs, and b) encouragement to undertake further studies.

One EN responded that there are no courses available for rural ENs.

It was noted that 81% of the senior nurses felt that the attached list of courses met their needs.

⁵ Numbers do not tally exactly, due to some missing values in responses

Enabling factors for further education

The respondents were asked about the importance of a range of issues, to support them undertaking further studies. The responses from the sub-group planning to undertake further studies (N=154) identified the following (See Table 5.):

- Access to funds and scholarships is very important for all groups. Approximately 90% of each sub-group said this was important or essential, however 70% of the ENs (N=17/24) replied this aspect was "Essential" to enable them to undertake further studies. For RN's and Senior nurses, 50% and 54% believed access to this funding support was "Essential".
- Approval for Study Leave is very important for all groups. Approximately 88% of each group said this was important or essential, with 78% of the senior nurses stating that this aspect was essential to enable them to undertake further studies.
- Opportunity for promotion/career development ? 79% of respondents replied that career opportunities & career structure are "very important" to "essential" to enable them to undertake further studies in renal nursing. This opinion was more marked in the EN group, of whom 60% believe the career structure to be "essential" for leading them to undertake further studies
- Access to a mentor to assist them in their development? 69% of respondents replied that having a mentor is "very important" to "essential" to enable them to undertake further studies in renal nursing. The ENs and senior nurses felt more strongly about the importance of a mentor (78% and 74%, respectively) than did the RN group.
- The response was variable regarding computer skills. There was no clear response that would guide strategy development.

TABLE 5: Importance of enabling factors: "very important" to "essential" for those considering undertaking further studies

Enabling Factor:	ENs	RNs	Senior Nurses	All nurses
Access to funds / scholarships	92% (22/24)	87% (90/104)	92% (22/24)	88% (134/152)
Improved computer skills	61% (14/23)	46% (47/103)	48% (11/23)	48% (72/149)
Approval for study leave	87% (20/23)	86% (89/103)	96% (22/23)	88% (131/149)
Having a mentor	78% (18/23)	66% (68/103)	74% (17/23)	69%(103/149)
Career opportunities / structure	83% (19/23)	76% (78/103)	88% (21/24)	79% (118/150)

Barriers for renal nurses who consider undertaking further education

A range of barriers were listed in the survey, covering the following issues:

- Organizational: Lack of support/encouragement from organization/executive; study leave refused; permission to attend course refused
- Local workplace: Lack of support; encouragement from manager; workplace culture
- Home/self: Finances; time; childcare commitments.

Respondents were asked to identify the extent to which these were barriers in their own situation. For many of the issues there was a relatively even spread of responses across all categories, indicating no strong trend. The main issues considered to be barriers are listed in Table 6.

TABLE 6: Perceived barriers, for those considering undertaking further studies

Potential Barrier:	ENs	RNs	Senior Nurses	All nurses
Lack of recognition of achievement of higher studies	52% (12/23)	23% (23/101)	46% (11/24)	31% (46/149)
Financial	90% (18/20)	65% (64/99)	78% (18/23)	71% (101/43)
Time to study	65% (13/20)	69% (68/99)	74% (17/23)	69% (99/143)

Lack of encouragement to undertake further studies, was identified as a barrier for 30% of ENs who were considering undertaking further education, but not so for the other nurses.

Location

There were approximately twice as many respondents working in metropolitan locations (N=248) as those working in non-metropolitan locations (N=134). A further stratification of the response data by location (metropolitan versus non-metropolitan) was performed. Overall, the difference in renal nurses' application to further studies was not significant (ns), whether working in metropolitan or non-metropolitan environments, and the results are provided in Table 7.

Table 7: Comparison of involvement in further studies, by location sub-group

Status of Studies	Metro	% of Metro (95%CI)	NON-Metro	% of Non-Metro (95%CI)	Comparison
Completed	113	46% (39%-52%)	61	46% (37%-54%)	ns
Current	15	6% (3% – 10%)	14	10% (6% – 17%)	ns
Considering	96	39% (33% – 46%)	57	43% (34% – 51%)	ns
Total Respondents	248	65% of Total 382	134	35% of Total 382	

Similar patterns were reflected within the subgroups of ENs, RNs and for those working in the more senior positions, leading to the conclusion that location of workplace (whether metropolitan or non-metropolitan) is not a determinant of whether renal nurses are seeking to undertake further studies. The further analysis by nursing position of respondents considering undertaking further education over the next 5-10 years is shown in Table 8.

TABLE 8: Distribution of renal nurses considering undertaking further education over the next 5-10 years

Position	Metropolitan Workplace		Non-Metropolitan Workplace		All Respondents	
	Considering Further Educ'n	% of nursing position (95%CI)	Considering Further Educ'n	% of nursing position (95%CI)	Considering Further Educ'n	% of nursing position (95%CI)
(E)EN	11	48% (27%-64%)	13	59% (34%-79%)	24	53% (38%-68%)
RN	69	45% (37%-54%)	36	42% (32%-54%)	105	44% (38%-51%)
Senior	16	23% (14%-34%)	8	30% (14%-50%)	24	25% (16%-34%)
TOTAL (%)	96		57		153	

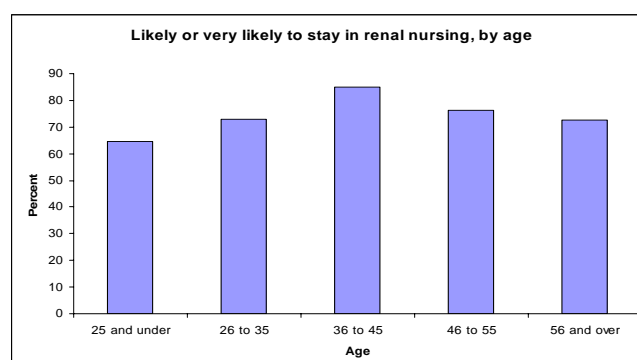
Comparison between renal ward staff and dialysis staff

On review of the study intentions of ward nurses compared to dialysis nurses, 43% of dialysis RNs and 64% of ward RNs were considering undertaking further studies, however this comparative difference is not significant due to the small sample size of ward RNs (N=11). Likewise, 67% of RNs working in both dialysis and ward settings (N=6/9) were considering undertaking further studies. The numbers of EN respondents working on wards were too small to make significant comparison with dialysis ENs.

Retention in renal nursing:

Respondents were asked how likely they thought that they would still be working in renal nursing in NSW in the next 5 to 10 years' time. Overall, **78%** (95%CI: 74% – 82%) of the cohort felt that it was likely or very likely that they would still be working in renal nursing in NSW in 5 to 10 years time. This rate did not differ significantly with age (χ^2 16, $df=23.23$; $P=0.027$), and the proportion of those thinking it was likely or highly likely that they would stay in renal nursing is shown in Figure 3.

Figure 3: Those likely to still be in renal nursing in NSW in 5-10 years time, split by age category



Those likely or very likely to stay in renal nursing demonstrated an inverse relationship between age and intention to undertake further studies, where the younger agegroups were more likely to be considering undertaking further studies (χ^2 4 df =23.2; $P = 0.0001$). The proportion who felt they might change to a different discipline in nursing was very small, 5.5%

There was no association detected between those who had completed further education or were currently undertaking further education, and likelihood of remaining in renal nursing in the next 5-10 years.

4. Discussion

The survey appeared to have a very good response, however it was found to be less than 50% of all NSW renal nurses. Generalisation from these results to all renal nurses in NSW should be handled with caution. If there is response bias in these results, it is likely to be biased toward those nurses who are interested in further studies (whether past, current or future) who would be willing to take the time to do the survey. On viewing the response rate sorted by location, there is notable under-representation from some of the larger renal units (See Appendix I). On the other hand, several sites had greater than 90% response rate, and this response would fully represent those sites. The information has not been analysed by specified workplace, as the numbers become small at some sites and may not be representative. It was also noted that participation by ward nurses was low, and we believe this group is underrepresented in this survey.

The respondents' level of interest and participation in further education was found to be very high, and unrelated to whether the nurse works in a metropolitan or non-metropolitan location. It was noted that 78% of senior nurses and 39% of RNs had already undertaken further education. Also, 44% of RNs and 53% of ENs who responded to this survey are interested in undertaking further studies in renal specialty courses. The proportion of renal nurses without further education and who were not seeking to commence further education in the next 5-10 years was low for senior nurses, RNs and ENs (8%, 12% and 13%, respectively). These findings indicate that there is a high level of demand for formal education programs for senior nurses, RNs and ENs employed in renal units. This report will focus on the needs of the RNs and ENs, as development of these nursing positions will form the basis of the future renal workforce.

A key requirement of this survey was to determine whether the currently available education programs meet the needs for renal nurses seeking further education. Of the RNs considering undertaking further studies 97% of respondents to this question felt the available courses do meet their study needs. This has informed the WET Nursing Sub-Group that there is no need at this time to develop additional post-graduate courses for RNs.

The situation is more complex for the 53% of ENs considering further studies. It is apparent they want further education, but there are limited courses available. There was only one course listed for EN further education however, since the release of the survey, that TAFE program has become unavailable, awaiting VTAB accreditation. It would appear that that EN program would have suited the ENs, if available. Developing the role of ENs in renal nursing is important for workforce planning, yet there is currently no specialty course available to them.

The structured course for ENs that was developed by TAFE and was piloted in 2007, was found to be well-received by those that enrolled in the program and was found to be effective for ENs in the clinical environment. However the course was run in partnership with a dialysis company, and was unacceptably expensive for ENs without sponsorship. Another problem is that this TAFE program would only be available at Meadowbank in Sydney, and the development of EN roles in further locations is very important to the future of renal services across NSW. There are opportunities arising for EN learning modules available for ENs from Deacon University and by Newcastle University. Costs and accessibility of EN courses should be investigated by the WET Sub-Group in effort to re-establish an EN program.

Another aspect of this survey was to assess enabling factors and barriers to undertaking further studies. The following were noted to be important in assisting nurses to embark on further studies:

- Access to funds and scholarships.
- Approval for Study Leave.
- Opportunity for promotion/career development – especially for ENs.
- Access to a mentor to assist in career development. This item was more strongly supported by the senior nurses than the other groups. It is assumed that the senior nurses are more likely to have experienced the benefit of a mentor in the development of their own career.

The main barriers noted were:

- Lack of recognition of achievement of higher studies
- Financial
- Time to study, and
- (More so for ENs) lack of encouragement to undertake further studies.

Discussion of these items in the Nursing WET Sub-Group will lead to development of several statewide strategies to assist renal nurses to engage in further studies. Also, some of these issues may be addressed at the local level in renal units which are seeking to encourage uptake of further studies.

Staff retention is a critical component of workforce planning. The survey results indicate high levels of loyalty for nurses currently working in renal units.

5. Recommendations

The following recommendations are made for the RSN WET Nursing Sub-Group, from analysis of these survey results:

- To work with NSW TAFE and with NSW Health Nursing and Midwifery Office (NaMO) to re-establish a suitable course for ENs.
- To work with NaMO to provide scholarship programs for ENs to undertake advanced courses, and encourage EN study leave programs in Area Health Services similar to those available for RNs.
- To circulate this Report to all renal units in NSW, and encourage greater support for renal nurses undertaking further education.
- To raise the issue of EN renal courses with leaders in nursing education in NSW and other states, and to identify strategies for establishing access to EN training for nurses outside the Sydney area.

6. Conclusion

The information learned from this survey of renal nurses has been valuable in identifying the level of demand for post-graduate RN education and for EN education in NSW, and to determine gaps in education resources for career development in renal nursing, and barriers to obtaining further education. The information from this survey will be used to assist the workplan of the RSN WET Nursing Sub-Group.

The key results of the survey are that the current range of post-graduate renal courses meets the needs of RNs in NSW, but the needs of the ENs are not met. There is a high level of interest from ENs in undertaking further studies. Also renal nurses working outside metropolitan areas are just as likely, if not more so, to engage in further studies as long as they have access to these programs.

The RSN WET Nursing Sub-Group is very grateful to all the nurses who provided their responses in this survey, and to the 'champions' at the various sites who worked so hard to get a high response from their staff.

Appendix I

Responses: List of locations

<i>Work Location</i>	<i>Responses</i>	<i>% of Responses</i>
Liverpool	40	10.5%
Wollongong	30	7.9%
St George Hospital	27	7.1%
Royal North Shore Hospital	24	6.3%
Gosford/Central Coast	19	5.0%
Wansey & John Hunter	19	5.0%
Westmead	17	4.5%
Royal Prince Alfred Hospital	15	3.9%
St Vincent's	14	3.7%
Coffs Harbour	13	3.4%
Prince of Wales Hospital	13	3.4%
Tamworth	13	3.4%
Wagga	10	2.6%
Lismore	9	2.4%
Nepean	9	2.4%
Port Macquarie	9	2.4%
Orange	8	2.1%
Sydney Adventist	8	2.1%
Taree	7	1.8%
Armidale	6	1.6%
Dubbo	6	1.6%
Lindfield	6	1.6%
Maitland	6	1.6%
Moruya	6	1.6%
Tweed Heads	6	1.6%
Grafton	5	1.3%
Griffith	5	1.3%
Ballina	4	1.0%
Fairfield	4	1.0%
Goulburn	4	1.0%
Moree	4	1.0%
Bega	3	0.8%
Blacktown	3	0.8%
Muswellbrook	3	0.8%
Shoalhaven	3	0.8%
Inverell	2	0.5%
Diaverum	1	0.3%
Manning	1	0.3%
Grand Total	382	100%

