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2010

# What emergency nurses consider the reasons possible primary care patients present to an Emergency Department for treatment

Rebekkah Middleton  
*University of Wollongong*

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What emergency nurses consider the reasons  
possible primary care patients present to an  
Emergency Department for treatment

A thesis submitted in (partial) fulfilment of the requirements for the award  
of the degree

**Master of Nursing (Research)**

**from**

**University of Wollongong**

by

Rebekkah Middleton, BN

Faculty of Health & Behavioural Science

2010

I, Rebekkah Jane Middleton, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Master of Nursing (Research), in the School of Nursing, Midwifery & Indigenous Health in the Faculty of Health & Behavioural Sciences, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

Rebekkah Jane Middleton

1 July 2010

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## **Abstract**

**Objective:** This thesis examines the opinions of emergency nurses towards the possible primary care patient. It aims to explore what emergency nurses consider the reasons possible primary care patients present to an Emergency Department for treatment. This thesis also compares these nursing perceptions to those of patients.

**Background:** Literature speaks of health professionals' opinions towards patients who present to an Emergency Department who could potentially be seen by a General Practitioner or Medical Centre. This patient population are termed 'possible primary care patients' in this research. There is no literature that discusses nurses specifically and how nurses view the intention of this group of patients for presentation to an Emergency Department. With this in mind and with an interest in Emergency Departments and in particular emergency nurses, the researcher chose to focus on the beliefs of emergency nurses working in Emergency Departments within the former Illawarra Health Service towards primary care patients. For the purpose of the research, the patient population being examined were the possible primary care patients identified by the following criteria: any patient given a triage category 4 or 5 who self-presents, is not a planned return visit, and is unlikely to be admitted according to the Triage nurse assessing the patient.

**Methods:** Nursing staff working in the five Emergency Departments within the former Illawarra Area Health Service were given questionnaires to ascertain their perceptions of the reasons possible primary care patients present to an Emergency Department for care. Data were also collected about their department, sex, age, position held in the department, and length of time the nursing staff member had been working in an Emergency Department. These data were analysed to determine any differences in perception based on these variables.

**Findings:** Four key themes emerged from the data analysis. These were: despite demography, nurses generally considered free service provision to be the leading reason that possible primary care patients choose an Emergency Department for care; nurses holding positions of advanced practice or management did not consider cost to be an overwhelming factor for possible primary care patients when choosing

to come to an Emergency Department when compared with nurses working as Registered Nurse (RN) or Enrolled Nurse (EN); rural nurses consider access to General Practitioners to be lacking; and nurses and patients have polar views of why possible primary care patients come to an Emergency Department for service delivery.

**Conclusions:** Emergency nurses consistently believe that possible primary care patients choose to present to an Emergency Department because it is a free service. This agreement occurs despite various demographic differences.

There were evidenced differences regarding reasons for presentation to an Emergency Department between nurses and presenting patients. Nurses focused on free delivery of medical care and lack of access to General Practitioner services. Patients however focused on the urgency of their illness/injury believing it needed immediate care.

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# Chapter 1 – Introduction

## Background

The number of attendances to Australia's Emergency Departments is increasing. In May 2003 Morris Iemma, the (then) NSW Minister for Health, revealed that in 2001/2002 attendances at NSW public hospital emergency departments had hit a record high of more than 2 million people. This represented a 10% increase from the 1.8 million attendances the year before (NSW Health, 2003).

Mr Iemma claimed a causative factor for this increase was the number of patients attending the Emergency Department for cases that would be more appropriately dealt with by a General Practitioner. This factor is also frequently assumed by health professionals, that is, overcrowding in the Emergency Department is due to the general public attending the Emergency Department with conditions that are not urgent and do not require specific hospital treatment, but could be treated by a General Practitioner or in a Medical Centre. This assumption infers that the general public are misusing Emergency Departments, and in increasing numbers.

This corresponds with a recurring theme in the literature concerning Emergency Departments that states the general public "misuses" this facility (Marks, Steinfort and Barnett 2003). This theory of misuse originates from the popular opinion amongst many health professionals that numerous visits made to the emergency department are made for problems that do not require urgent attention (Gill, Reese and Diamond, 1996). In other words, members of the general public are attending the emergency department with conditions that are neither accidents nor emergencies and do not require specific hospital treatment (Murphy, 1998).

The literature speaks of health professionals opinions towards this patient population attending the Emergency Department for treatment (Afilalo et al 2004; Fatovich 2002; Guttman, Nelson & Zimmerman 2001; Murphy 1998; Sanders 2000), but there is no literature discussing nurses specifically and how they view the intention of this group of patients when considering presenting to an Emergency Department. With this in mind and with an interest in Emergency Departments and in particular

emergency nurses, the researcher chose to focus on the beliefs of emergency nurses working in Emergency Departments within the former Illawarra Health Service towards primary care patients.

This thesis examines the opinions of emergency nurses towards the possible primary care patient. It aims to explore what emergency nurses consider the main reasons possible primary care patients present to an Emergency Department for treatment. This thesis also compares these nursing perceptions to those of patients (termed possible primary care throughout this thesis).

For the purpose of this research, the definition of what constitutes the possible primary care patient was defined using criteria that assisted in categorising these patients when presenting to the Emergency Departments. The criteria was:

- Patients classified into category 4 or 5 of the Australasian Triage Scale by the triage nurse on duty
- Not arriving to the Emergency Department by ambulance
- Patients who were self-referred
- Patients who were presenting for a new episode of care
- Patients who were not expected to be admitted (according to the assessment of staff in the Emergency Department).

Based on these criteria, the definition of a possible primary care patient is any patient given a triage category 4 or 5 who self-presents, is not a planned return visit, and is unlikely to be admitted according to the Triage nurse assessing the patient.

(This definition is listed in Appendix 1 as a quick reference for the reader).

This research interest originated from a personal interest in emergency nurses beliefs towards primary care patients. The researcher had earlier been involved in research conducted by the University of Wollongong's Centre for Health Service Development where primary care patients were surveyed regarding the reasons for their presentation to an Emergency Department within the former Illawarra Health Service. Being involved in this research (in this thesis referred to as the "Parent

study”) led me to consider my own views of this patient population. As an experienced emergency nurse, I wanted to determine why my colleagues thought primary care patients attended an Emergency Department for care. Anecdotally I was aware of negative attitudes towards this patient population. I wanted to investigate what nursing staff working in the Emergency Departments within the former Illawarra Health Service thought were the reasons possible primary care patients presented to the Emergency Department. As I was involved in the Parent study I also had the opportunity to compare and contrast these nurses views with the reasons patients gave for their presentations to the Emergency Department.

Given this interest, and involvement in a Parent Study, I began to consider research that would address the following aims:

1. What do nursing staff consider the reasons possible primary care patients present to Emergency Departments?
2. How do nurses’ beliefs about the reason primary care patients present to an Emergency Department compare with the reasons patients themselves gave for their presentations, gleaned from the Parent Study?

## **Overview of the thesis**

This introductory chapter presents an outline of the overall thesis, which includes the following chapters: background, literature review, methodology, findings, discussion, conclusion and recommendations. Chapter two provides the background to this study. It gives an overview of the parent study and its findings. Chapter two then shows how this study is linked to the Parent Study but is a separate arm with its own merit and niche. It will then outline the aims of the current study and what the study criteria for what constitutes a possible primary care patient are. Chapter two will describe the context of the study, provide an overview of the Emergency Departments in the former Illawarra Health Service and conclude with an exploration of the significance of the study.

Chapter three outlines what is already known about this topic of emergency nurses beliefs as to why possible primary care patients choose an Emergency Department for treatment in preference to a General Practitioner or Medical Centre. Chapter

three situates my study in relation to the literature and provides details through the literature as to why the study is important.

Chapter three provides details of the search process used within the literature review. It identifies key themes found through searching the literature that are pertinent to this research. The chapter describes how literature has examined what constitutes a primary care patient. It highlights the differing perceptions between patients and health professionals perceptions views of what constitutes “appropriate” presentations to emergency departments. It then explores how primary care patients are viewed by health professionals, and what primary care patients consider to be the reasons they choose to come to an Emergency Department for care rather than another service in the community such as a General Practitioner or Medical Centre.

Chapter three demonstrates how primary care patients are perceived as ‘inappropriate’ by health professionals. The review demonstrates a gap in literature pertaining to nurses, particularly nurses working in Emergency Departments, and their views of primary care patients who they come into contact with as part of everyday business.

Chapter four describes the study design of the research. The chapter focuses on how the aims of the research were met through the methodology and methods. The participants and their recruitment are outlined. The questionnaire used for the data gathering is discussed. This chapter also examines data analysis, ethical considerations and issues of rigour and validity.

Chapter five details the research findings. Key themes and significant findings that emerged from the data are discussed. This chapter shows that although a number of demographic variables were examined, one overwhelming theme emerged irrespective of who the participants were or where they worked.

Chapter six discusses the key findings and looks at potential reasons for these findings. It particularly focuses on the fact that there are some interesting differences between the subgroups that were examined, but overall one theme stands out consistently by all groups – nurses working in Emergency Departments consider

possible primary care patients want free service delivery. It also considers how the patients' responses generally reflect the literature, but nurses' responses didn't. It would seem that nurses are at odds with the patients studied (in the Parent Study) and with patients generally (as discovered through the literature review). The implications of this to clinical practice is discussed.

The final chapter, seven, concludes with an overview of the research and what this thesis adds to nursing research. Recommendations are made that particularly focus on clinical practice issues and future nursing research. The chapter reflects on the findings in light of how they may influence changes in clinical practice. It considers what nurses need to be informed of to ensure they meet the needs of the possible primary care patient population that continue to attend Emergency Departments.

Chapter seven recommends further nursing research that may extend the findings from this research. Limitations of the research are discussed in relation to bias and wider applicability of the research.

## **Chapter 2 – Background**

This chapter will briefly outline the parent research study and the results found through it. It will then show how the current research is linked to this Parent Study, but is a separate arm with its own merit and niche.

Emergency Departments are busy places seeing large numbers of patients with a broad range of injury and illness. In recent years they have struggled with 'overcrowding' which has often been associated with, even blamed on, 'inappropriate' patients coming for treatment who could potentially be seen in another environment such as a general practice surgery or a Medical Centre. There have even been periodic campaigns like 'Save Emergency Departments for Emergencies' (NSW Health 2008), which have attempted to address such associations and decrease the number of non-urgent patients presenting to Emergency Departments. Internationally, this inference has been studied to determine accuracy, but it is not well researched in Australia.

The former Illawarra Health Service and the Centre for Health Service Development at the University of Wollongong undertook a collaborative research project in 2004 that examined why patients with primary care needs attend Emergency Departments. By determining why this patient population choose an Emergency Department rather than a General Practitioner or Medical Centre, this study attempted to understand the patients' reasons for accessing the Emergency Department as opposed to primary care services and then to look at the implications this has for Emergency Departments. This chapter will provide an overview of this study as it is the parent research of the study being written up in this thesis.

### **Parent Study**

The Parent Study was a large, funded research project conducted through the Centre for Health Services Development (CHSD) located at the University of Wollongong. The research was funded by the Australian Health Ministers' Advisory Council. The rationale for the project was to ascertain why Emergency Department numbers are increasing and how the role of the Emergency Department is changing.

I was involved in one arm of this study that focused on why patients with apparently less urgent conditions (possible primary care patients) present to Emergency Departments, by asking patients 'Why did you come to the Emergency Department today rather than to a General Practitioner or Medical Centre'?. The other arm of the study looked into whether the availability of primary care services (such as General Practitioners and Medical Centres) influences the number and type of patients who attend Emergency Departments. A brief overview of the Parent Study will follow.

### *Parent Study context*

The study was conducted within the former Illawarra Area Health Service, now known as the Southern Hospitals Network of South Eastern Sydney Illawarra Health. This is an area from Helensburgh to Milton spanning approximately 200 kilometres. The Illawarra region covers different population densities and service provisions. This diversity provided useful information about population and available services as factors that can affect metropolitan and semi-rural populations.

### *Parent Study Literature review*

A comprehensive and rigorous literature review was conducted to ascertain possible definitions of primary care patients and to determine the most common reasons cited for primary care patients (however defined) attending Emergency Departments. A draft questionnaire was developed and piloted, then refined for clarity. I developed this questionnaire in conjunction with a senior research fellow.

The questionnaire listed the 19 reasons most commonly given by primary care patients (however defined) in published studies for coming to an Emergency Department. This questionnaire was refined to improve clarity after pilot testing with 30 patients.

### *Parent Study Approach*

The Parent Study involved questionnaires to examine patient perceptions about the role of Emergency Departments and determine why people with primary care needs choose to attend an Emergency Department or a General Practitioner. The target

population was the set of possible primary care patients presenting to Emergency Departments in the former Illawarra Health Service between 14 January and 14 July 2004.

Working as a nurse researcher, I visited each Emergency Department on numerous occasions and worked with Triage staff in identifying patients who met the criteria outlined in Appendix 1. The visits were sporadic spanning all times of the day and night and all days of the week. Patients fitting the criteria of 'possible primary care' were selected for the study at random times when the research nurse visited each site. This covered all hours apart from 2am to 4am for all five Emergency Departments involved in the research.

The nurse researcher approached all patients meeting the definition to participate in the research study during the specified dates mentioned above. Questionnaires were administered in the waiting room after patients had been triaged and were waiting to be seen.

Patients were asked 'Why did you come to the Emergency Department today rather than a General Practitioner or Medical Centre?' Respondents were asked to indicate for each of the 20 questions whether their reason(s) for presenting to the Emergency Department was a 'very important reason', a 'moderately important reason', or 'not a reason' (see Appendix 2 for Parent Study patient questionnaire). The sample consisted of 397 patients (response rate of 99%=397/400) recruited from the five Emergency Departments in the former Illawarra Health Service between 14 January and 14 July 2004. The patients were given the questionnaire to complete after they were provided with an explanation of the study and consent was obtained. If they required assistance, the research nurse (myself) would read the questions to the patient and record their response for them.

#### *Parent Study Questionnaire validity*

The questionnaire used in this parent research applied a fixed ordering of the available reasons the respondents could choose and rate as holding a level of importance to them in choosing the Emergency Department for care. Respondents could nominate the degree of importance ('very important' or 'moderately important')



or declare no importance ('not a reason'). The research team considered that question order had the potential to cause systematic positive or negative effects on responses to questions in batteries such as this questionnaire. This effect is well known to survey researchers who label it 'anchoring' (Siminski 2006). The concept of anchoring was considered in relation to this questionnaire. Scale anchoring is often seen in ordinal scales such as the one used within the questionnaire ('very important', 'moderately important', 'not important'). This effect is evident since the respondent is unsure where the boundaries lie between categories and hence 'anchor' or regulate the scale according to other stimuli or influences that comes to mind whilst completing the questionnaire. These stimuli can be prejudiced by previous questions (Siminski 2006).

The research team therefore decided to test for bias by performing an additional 48 questionnaires where the items were randomly ordered. This was an important component of the research methodology for the Parent Study to show that bias occurring as a result of fixed order questionnaires was not evident in this study. The secondary questionnaires were conducted between 23 September and 11 November 2004. The results showed no apparent difference between the initial fixed order questionnaires and the secondary random item questionnaires, thereby showing that anchoring did not occur within the Parent Study (Siminski 2006).

### *Parent Study Results*

The results of the Parent Study questionnaire was calculated according to responses and also by variations within sub-populations defined by region, time of presentation, illness/injury and other characteristics. The major findings from the Parent research was that possible primary care patients who completed the questionnaire identified three key reasons why they chose to come to an Emergency Department rather than a General Practitioner or Medical Centre. These were:

- "My health problem required immediate attention and was too urgent to wait to see a GP or Medical Centre" with 67% of respondents stating this was a 'very important' reason;

- “I am able to see the doctor and have any tests or x-rays all done in the same place at the ED”, chosen by 51% of respondents as a ‘very important’ reason; and
- “My health problem was too serious or complex to see a GP or Medical Centre, including after hours”, chosen by 38% of respondents as ‘very important’ (Siminski et al 2005, p.3).

Following these reasons identified by the primary care patients who completed the Parent Study questionnaire, all other reasons were selected much less frequently. See Appendix 3 for full result summary. The Parent Study has been published in various journals, listed in Appendix 4.

#### *Link to current research*

With myself as the researcher being part of the large Parent Study, I decided to perform a separate study that emerged from the Parent Study. Since I was regularly visiting the Emergency Departments to perform the patient questionnaire, I was able to speak to staff members, answer any questions about the study and generate an interest in the pending results. This naturally allowed me to engage the emergency nurses into the research I was about to undertake concerning nurses beliefs. I wanted to know the answer to the question: “What do nursing staff consider the reasons possible primary care patients present to Emergency Departments”?

The purpose of the adjunct study I undertook was to examine nursing staffs’ beliefs about why they thought these possible primary care patients attended an Emergency Department rather than a General Practitioner or Medical Centre. This was to be examined demographically. Further examination of whether there was any correlation between the possible primary care patients’ stated reasons for attending an Emergency Department rather than a General Practitioner or Medical Centre and the emergency nurses responses would also be explored.

This overview of the Parent Study provides a background to my study as the researcher. The methodology for the current research will be described in Chapter 4 Methodology.

## **Current Research**

As the researcher, I decided to ask nursing staff in Emergency Departments primarily because I was an emergency nurse and had an anecdotal assumption (from more than ten years working in Emergency Departments) that nurses can be judgemental and have bias associated with particular patient presentations that attend Emergency Departments. This implication, combined with literature suggesting health care professional's beliefs regarding primary care are often negative, concerned me in terms of how these beliefs may affect patient care.

I had frequently been in discussions or heard nursing staff discuss particular types of patient presentations that come to the Emergency Department. The outcomes of these discussions were (generally) that nursing staff consider patients that could potentially see their General Practitioner as inappropriate presentations who are abusing the health system. I wanted to ascertain what emergency nurses really believed and so set about to perform my research.

The hypothesis for this study is that Emergency Department nursing staff generally have negative perceptions of patients who attend the Emergency Department for potential primary care issues. In order to investigate this, nursing staff from Emergency Departments within the former Illawarra Health Service were asked to answer the question, "Why do you think possible primary care presentations come to the emergency department rather than a general practitioner or Medical Centre?"

Based on the Parent Study, I decided to adopt the definition of "possible primary care patient". The definition was developed through a thorough literature review and analysis. Much literature is limited in its definition of the primary care patient and so there is difficulty in understanding who forms this population. Literature is unable to be accurately compared due to the variations in definition used. Using this same definition as the Parent Study would also enable consistency when comparing the two studies.

The definition used when discussing a possible primary care patient throughout this research thesis is the following: any patient given a triage category 4 or 5 who self-

presents, is not a planned return visit, and is unlikely to be admitted according to the Triage nurse assessing the patient (see Appendix 1).

## **Triage**

To accurately understand this definition the reader must be clear about what triage is and about the categories of the Australasian Triage Scale.

Throughout Australia and New Zealand, the Australasian Triage Scale (ATS) is used in hospital based emergency settings, that is Emergency Departments, to rate clinical urgency. It assists patients be seen in a timely manner that is appropriate for their clinical condition (Australasian College of Emergency Medicine (ACEM) 2006). Triage is performed by an experienced Registered Nurse (RN) who has undergone specific training in the application of the ATS to patients as they present to Emergency Departments. The key question the triage nurse must consider when applying the ATS to a patient is: "This patient should wait for medical assessment and treatment no longer than..." (ACEM 2006, p.1).

The ATS has five categories that may be allocated, with corresponding times for each category that the patient must be seen within. These range from categories one through to five, with one being the most urgent (see Appendix 5 for description of categories and times). The times linked to each category (time to treatment) refers to the maximum amount of time a patient should wait for assessment and treatment (ACEM 2005). The Australasian College of Emergency Medicine has outlined clinical descriptors for each ATS based on both research and expert consensus. These are provided as examples and are stated as being indicative only by the College (ACEM 2005). For the purpose of this research they provide clarity for the reader of what types of patients fit ATS 4 and ATS 5. The Australasian Triage Descriptors outlined by ACEM are found in Appendix 6.

As has been identified earlier, the definition of the possible primary care patient included patients who were allocated a triage category four or five, along with other descriptors.

## **Overview of Emergency Departments within study**

Within the former Illawarra Health Service, now known as the Southern Hospitals Network (SHN) of South Eastern Sydney and Illawarra Area Health Service (SESIAHS), there are five Emergency Departments. These range in size and function and service various populations from metropolitan to rural.

The research was conducted in the five Emergency Departments that service the former Illawarra Area Health Service. Permission was sought to name the departments involved. Each Emergency Department is committed to research and sees value in naming themselves for the purpose of this research.

In view of this permission, relevant information about each Emergency Department is listed below as they were at the time of the research:

- Wollongong Emergency Department: The largest Emergency Department, serving a metropolitan area. It is a major referral hospital and is classed as a level 5/6 (see Appendix 7 and 8 for descriptions of Emergency Department service levels), seeing approximately 42 000 patient presentations annually, having 25 beds and 65 full time equivalent Registered Nursing staff. There were no Enrolled Nurses working in this department. The department is serviced by Emergency Physicians and is classed as a teaching department. This means that there is a range of medical officers from interns to permanent staff specialists.
- Shellharbour Emergency Department: This department is located 25km south of Wollongong Emergency Department so remains in the metropolitan region. Shellharbour is classed as a level 3 Emergency Department and is part of a district hospital, hence is referred to as a regional department. Wollongong Emergency Department is the main referral centre and hence Shellharbour Emergency Department generally sees a less acute population and far less presentations annually – 20 000. It had 15 beds and employed 26 nursing staff, 23 Registered Nurses (RN) and 3 Enrolled Nurses (EN). This department is serviced primarily by casual medical officers who are senior and have been working in Emergency Departments for many years.

- Bulli Emergency Department: This Emergency Department is located 15km north of Wollongong Emergency Department. It is classed as a level 2 Emergency Department and sees a patient population of 10 000 annually. Bulli Hospital is a small community style hospital with a largely geriatric service. It is on ambulance bypass and only sees walk in patients that in the main require low levels of care. This department has 4 beds and 7 nursing staff members, 5 RNs and 2 ENs. Bulli is serviced by one casual medical officer during the hours of 0800 to 1800. Following these times, a medical officer covers the entire hospital which includes patients presenting to the Emergency Department. Bulli Emergency Department is classed as a regional department.
- Shoalhaven Emergency Department: Shoalhaven Emergency Department is part of a regional hospital and services a semi-rural population. It is part of the rural directorate and so is classed as a rural department. It is 80km south of Wollongong Emergency Department and is a level 4 department. The department sees approximately 28000 presentations annually. There are 19 beds in the Emergency Department and 40 full time equivalent nursing staff employed; all RNs. Casual medical officers service this department in a similar manner to Shellharbour Emergency Department.
- Milton Emergency Department. This is a level 2 rural Emergency Department in a community hospital with no medical officer on site. It sees approximately 10 000 presentations annually, with large seasonal variance. This Emergency Department has 5 beds and employs 9 nursing staff, all RNs. ENs come from the ward to work in the department when workload becomes overwhelming, however there are no ENs employed to work in the Emergency Department. The department is located 80km south of Shoalhaven Emergency Department. Local General Practitioners service the Emergency Department in an 'on call' manner.

Given these descriptions it is evident there was one major metropolitan Emergency Department, two regional and 2 rural Emergency Departments. At the time of the study, there were 127 nurses employed in the Emergency Departments within the former Illawarra Area Health Service. Shoalhaven Emergency Department moved to

larger premises towards the end of the study and consequently employed another 10 full time equivalent RN positions. Wollongong ED underwent some clinical redesign and had to increase their staffing levels by 10 full time equivalent RN positions during the course of the study.

This overview of the Emergency Departments within the former Illawarra Health Service provides the reader with an overview of the types of departments and populations serviced by the departments. This outlines the context in which the research study was conducted in.

## **Conclusion**

In order to understand the current research in this thesis, it is important to have an overview of the Parent Study from which the original idea stemmed. This guides the reader to appreciate where the definition of the possible primary care patient originated. It also demonstrates the researchers work in the Parent Study and hence the ability to share that definition as well as the questionnaire. Since the researcher was part of the original design and analysis of literature to formulate the questionnaire it is appropriate that she use a modified version to maintain consistency when approaching emergency nurses. By mentioning the Parent Study, it will also enable comparison of my results with that of the Parent Study. A key element of the extension of the Parent Study to the current one is that the nurses and patients were the same population over the course of the data collection.

To explore the beliefs and perceptions of emergency nurses, a literature review was carried out, as discussed further in the following chapter. Very little research exists specifically on the perceptions of emergency nurses towards the primary care patient population. Supporting literature around the impact of this patient population on Emergency Departments and health professionals generally exists, but there is a distinct lack of literature addressing emergency nurses. This will now be explored to determine a gap in the literature that supports my research.

## **Chapter 3 – Literature Review**

To gather the required information to answer the question “What do nursing staff consider the reasons possible primary care patients present to Emergency Departments”, I first had to determine what literature said about nurses’ beliefs as to why possible primary care patients attend an Emergency Department. Having looked into a broad range of literature relating to the research question, I found very little attention has been given to nurses’ beliefs in the literature, particularly emergency nurses’ beliefs. There was minimal literature around nurses’ beliefs surrounding patients, let alone primary care patients. In order to understand the significance of the research question and be able to interpret nurses’ beliefs, I have explored the literature to enable discussion of elements related to the research question. The outcome of the search was the following themes:

1. lack of definition between health professionals of what constitutes an ‘inappropriate’ or non-urgent patient;
2. health professionals’ perceptions of primary care in the Emergency Department;
3. variance between patient and health professionals views of ‘appropriate’ presentation to an Emergency Department;
4. the impact of health professionals perceptions on patients; and
5. alternatives to providing care for primary care presentations.

The process leading to these themes will now be examined.

### **Work already done**

Chapter 2 Background outlined the Parent Study and the impetus for this current research. So it is known that a recent project was undertaken to ascertain why patients with primary care needs attend Emergency Departments. But what do nurses caring for those patients think are the reasons these patients attend an Emergency Department rather than a General Practitioner or Medical Centre? A review of the literature was performed to gather information of work already done concerning primary care patients and the health care professionals providing the care to this patient group.



## **Literature Review Introduction**

There is a common misconception that the workload of Emergency Departments comprises dramatic trauma resuscitations plus a large population of low acuity patients who wait hours in the waiting room for 'General Practitioner-type' care. In fact, in most urban Emergency Departments, the 'bread and butter' business is the assessment and care of patients triaged to categories three and four (see Appendix 5 for triage category explanations) - mainly medical patients who require evaluation (which may require diagnostic services), initial acute treatment and consideration for hospital admission or coordination of community follow-up (EDIS data 2004-2005; Hider 2001, p.158). In the past, there was little choice for people with injuries and other such medical problems but to present to a hospital Emergency Department, or for General Practitioners to refer such patients on. However, over the past decade, the range of services available to patients in the community has become much broader. It is unclear why people with potential primary care medical conditions go to either one or the other service.

There has been much discussion regarding the appropriateness of many Emergency Department attendances, often underpinned by the idea that if somehow services could be better organised, or patients better educated about the role of Emergency Departments, then Emergency Department use would more closely match the acute role that such departments were designed for. The Australasian College for Emergency Medicine (ACEM) has argued against this stating that the profile of patients seen in general practice and Emergency Departments are very different, that the workload generated by 'General Practitioner type patients' in Emergency Departments is low and that the major issues regarding Emergency Department workload are those of access block and ambulance diversion (ACEM 2004).

Studies that have investigated patients presenting to Emergency Departments who perhaps could have been managed elsewhere have used a variety of terms such as 'inappropriate', 'general practice', 'non-urgent' and 'primary care'. Despite the lack of agreement on how to define these presentations there are many common elements and these were used to inform the definition of primary care for this research.

Much attention has been given to 'primary care', 'non-urgent' or 'inappropriate' presentations to Emergency Departments. Anecdotally there is an assumption that 'inappropriate' attendances are common to Emergency Departments and contribute to the ever increasing problem of overcrowding and access block (Coleman, Irons & Nicholl 2001; Dent et al 2003; Gill 1994; Gray 2002; McCabe 2001; Peatling 2002; Richardson 1999). Overcrowding in the Emergency Department is the biggest obstacle to the delivery of timely and adequate emergency care. Overcrowding in Emergency Departments is a major concern in developed countries. This is an international problem; it is not unique to Australia (Derlet & Richards 2000; Fatovich 2002). Inappropriate use of the Emergency Department by people with nonurgent problems has been suggested in many studies internationally as a probable contributor to Emergency Department overcrowding and to increased health care costs (Baker, Stevens & Brook 1994; Cairns, Garrison & Keane 1998; Derlet & Nishio 1990; Kellerman 1994; Lowe & Bindman 1997; Lowe et al 1994; Vertesi 2004).

It is a frequent belief by health professionals, the community and politicians that many of the presentations coming to Emergency Departments in Australia could be managed by a General Practitioner (Sprivulis 2003). In May 2003 Morris Iemma, the (then) NSW Minister for Health, revealed that in 2001/2002 attendances at NSW public hospital emergency departments had hit a record high of more than 2 million people. This represented a 10% increase from the 1.8 million attendances the year before (NSW Health 2003). He argued that a contributing factor for this increase is the number of patients attending the Emergency Department for cases that would be far more appropriately handled by a General Practitioner (Gray 2002).

Much political contention exists concerning 'primary care' presentations to Emergency Departments. Contributing to this is the fact that within the Australian public health care system General Practice is a federal responsibility, whereas hospitals are managed by the States and Territories. This conflict occurs despite the number of primary care Emergency Department presentations being small comparative to General Practice presentations (a ratio of 1:33 in the former Illawarra Areas Health Service in 2003-04). The former Illawarra Area Health Service area incorporates the local government areas of Wollongong, Shellharbour, Kiama and

Shoalhaven. Since January 1<sup>st</sup> 2005, this area ceased to exist as a Health Service, being incorporated into South Eastern Sydney & Illawarra Area Health Service (Australian Government Department of Health and Ageing 2005). This would indicate that Mr lemma was wrong regarding his perceptions and allegations concerning potential primary care patient presentations.

The literature covering health professionals attitudes towards 'inappropriate' Emergency Department attendances indicates that there is a philosophy of 'blaming the patient', with a strong bias towards determining appropriateness from a medical perspective, rather than from the perspective of patients (Fatovich 2002; Marks, Steinfort & Barnett 2003; Gill, Reese & Diamond 1996). This evidence arises from overseas and so it is not clear whether it applies in Australia.

My objective was to consider the accuracy regarding differences between staff and patients at the 'shop front'. This occurred by surveying nursing staff working in Emergency Departments regarding the reasons they think possible primary care cases choose to present to Emergency Department and comparing their responses with those previously reported by patients.

Therefore, this review examines literature surrounding the topic of (possible) primary care presentations attending Emergency Departments and the health professional's perception of possible primary care presentations to Emergency Departments. The prefix 'possible' is used to suggest that not all patients presenting with these criteria could be appropriately cared for in a General Practice setting.

## **Inclusion Criteria**

Inclusion criteria were used to decide which literature would be included in the review. In choosing relevant literature to be included, they must demonstrate they are dealing directly with health professionals' perceptions of or attitudes towards primary care (or alternate terms) patients presenting to Emergency Departments and reasons why these occur.

The inclusion criteria encompassed the following:

1. *Types of participants:* health professionals' working in Emergency Departments (adult or paediatric).
2. *Types of outcome measures:* lack of definition of 'inappropriate' or non-urgent patient between health professionals'; health professionals' perceptions of primary care in the Emergency Department; variance between health professionals and patients regarding 'appropriate' presentations; the impact of attitudes on patients; and alternatives to the Emergency Department.
3. *Types of studies:* All literature concerning the terms and regarding the research topic, published and unpublished (where possible), was searched for. Papers of varying methodologies that addressed the outcome measures above. Although this provided some dated studies, their continuing pertinence is evident from the similarity of their underlying philosophies, and the correlation of their results with studies conducted more recently. Studies were not included or excluded on the basis of their validity.

## **Search Strategy**

The search focused on studies in any language up until and including 2005 as this was when the Parent Study began to publish their results. I wanted to review literature that had been published prior to this so that no overt bias could influence this review. In order to acquire relevant literature pertaining to this topic, the search strategy was adapted to suit the requirements of each database. The title combinations employed were based on content analysis of preliminary reading.

Search terms and descriptors included:

- Emergency department\*
- Accident and emergency department\*
- Inappropriate attend\*
- General practitioner\*
- General practitioner patient\*
- Primary care
- Primary care patient\*
- Nonurgent
- Low acuity
- Primary care presentation\*
- Medical Centre\*
- Health professional\*
- Emergency staff
- Nurs\*
- Emergency physician
- Medical officer
- Perception\*
- Attitude\*

Boolean terms were used to group these terms above. Due to the large number of terms, these have been listed in Appendix 9, along with combinations of search terms.

Databases searched were: CIAP; CINAHL (Cumulative Index to Nursing and Allied Health Literature); Cochrane; EBMR- (all EBM reviews: Cochrane, DSR-ACP Journal Club, DARE and CCTR); Meditext; Medline; Nursing and Health Sciences; Proquest 5000; Google Scholar; Synergy; Australasian Medical Index; and Pubmed. These databases were used due to their health focus.

The literature was comprehensively searched to identify all literature on the chosen topic. The search included electronic databases (above), hand-searching of journals related to the research question and searching for 'grey' literature, such as conference proceedings, discussion papers, and research theses. This was to limit publication bias where only studies with statistically significant results are submitted to journals for publication (Easterbrook et al 1991; Magarey 2001). Four loosely relevant theses were found. One conference presentation was connected.

Since it is predicted that approximately half the relevant articles will be identified by electronic searching (Magarey 2001:378; Sindhu & Dickson 1997:215), hand-searching was also performed. Searching literature included checking the references from papers to make certain any other contributory papers that may have been missed in the initial search were found and checked and also to find articles that were commonly referenced and used by many authors as key research papers.

Reliability was improved by including two other resources to assist with literature sourcing (Droogan & Song 1996). The researcher met with the librarians from the University of Wollongong and Wollongong Hospital Libraries and discussed search terms and literature sources. Each expert confirmed the search terms and assisted in the literature search.

Each search individually located numerous numbers, some in excess of 15000 articles. A combination of these terms was put together to reveal smaller more manageable searches (Appendix 9). Once the results were reviewed for relevance, the database was changed using the same search history. This ensured stability throughout the search providing precision in the search.

The articles that were identified in the search were checked for relevance to the definition of either 'primary care' ('general practice'), 'low acuity', 'nonurgent', 'inappropriate presentation' or any health professional attitude or perception of these terms by title and at abstract level. Evaluation of the studies occurred to ascertain their relevance to the research question. They were examined in light of their study participants, intervention(s), outcomes and study designs. This ensured the selected literature targeted the research question.

Foreign language literature was included in the search. The inclusion of these articles was to eliminate this form of potential bias (Lipp 1997:15; Magarey 2001:378). One Spanish study and one Danish study emerged in the search.

## **Objective of the Review**

The objective of this review:

To present the best available current literature and research on health professionals' perceptions of potential primary care patients presenting to Emergency Departments and to extract the main themes and findings of all relevant literature.

## **Search Results**

A search of the literature showed that research has been undertaken in the 70's, 80's and early 90's but there is limited current information available. It was noted in several articles that there is scarce research performed concerning health professionals' and their perceptions of the non-urgent presentation to an Emergency Department (Dale & Williams 1999; Guttman, Nelson & Zimmerman 2001).

Up to 650 titles were displayed. Each abstract was reviewed individually. In total, 122 pieces of literature researched or made reference to 'inappropriate' attenders in Emergency Departments. All were retrieved. Ten specifically studied health professional attitudes to 'inappropriate' Emergency Department attenders and 12 studies principally investigated 'inappropriate' patients' perceptions. 68 looked more generally at 'inappropriateness', the characteristics of all Emergency Department attendances, including minor injury presentations, and methods of reducing these

attendances. The number of items of 'grey' literature found was five. 27 articles were found to have no relevance upon reading. Therefore the total reviewed is 95.

These papers were examined and themed revealing five consistent categories:

- lack of definition between health professionals of what constitutes an 'inappropriate' or non-urgent patient;
- health professionals' perceptions of primary care in the Emergency Department;
- variance between patient and health professionals views of 'appropriate' presentation to an Emergency Department;
- the impact of health professionals perceptions on patients; and
- alternatives to providing care for primary care presentations.

All of the literature that were research studies were conducted in tertiary Emergency Departments. These included Emergency Departments that receive high level referrals and see over 50 000 presentations per year. For example, Boudreaux et al (2000) identify an Emergency Department that sees 85 000 presentations annually. Articles reviewed were predominantly from the United States, the United Kingdom, or Europe. No recent research or literature has emerged from Australia. No Australian research regarding health professional views and attitudes towards primary care patients has been undertaken. The sampling periods ranged from one week to six months. The methodologies included questionnaire survey, qualitative survey with semi structured interviews, prospective observational study, and medical record review.

Since 2005, very little additional literature has transpired concerning primary care patients and health professionals, and nothing concerning nurses, which are not connected with the Parent Study.

The five identified themes will now be discussed individually.



## **Theme 1: Lack of definition regarding the ‘inappropriate’ or non-urgent patient**

Health professionals, particularly nursing staff, commonly refer to possible primary care patients as ‘inappropriate’ in practice. It is therefore important to identify which attendances at an Emergency Department are classified as ‘inappropriate’ and what ‘inappropriate’ means. From the literature reviewed, there is currently no definitive and valid definition of what a possible primary care presentation constitutes, or even of what an ‘appropriate’ Emergency Department visit is. Nothing consistent and validated has transpired in literature in the last 40 years, in this regard.

In relation to such discrepancy in definition between health professionals, the following key elements were identified and will be considered here:

- There is no accepted or consistent definition of what a primary care patient is, or of what an ‘appropriate’ patient is
- Definitions vary as greatly as the number of articles that contain them
- Bezzina et al’s (2005) work is the most thorough but still has some shortcomings in definition
- Considering these factors it is unreasonable to expect patients to self-diagnose and present to the ‘appropriate’ facility

The professional consensus, from literature, on what to call an emergency and where to treat it relies heavily on implicit and subjective judgements. Murphy (1998) considers that this may be a reflection of training, speciality and beliefs rather than of scientific certainty. Therefore it is not surprising that there is enormous variability regarding the proportion of visits judged as ‘inappropriate’.

Generally speaking, ‘inappropriate’ attendances are described in literature as those patients visiting an Emergency Department for treatment that would have been more suited for primary care. This definition of ‘primary care’ is much debated and it seems that whether or not one can be described as a primary care patient is dependent on many factors. Given such variability, the choice of ‘possible primary care patients’ is the term used throughout this review to encompass the broad variance between articles.

A summary of the 'classifications' of primary care Emergency Department patients and 'inappropriate' presentations described in the literature is given in Table 1. This table is listed to assist in identifying the large number of variations in definition of what constitutes an 'inappropriate' presentation to an Emergency Department. It highlights the discrepancies between individuals and also those that occur geographically between countries. Some systems relied on the judgement of a clinician (Andersen & Gaudry 1984), while others were applied retrospectively (rather than prospectively) (Sempere-Selva et al. 2001).

In general, most authors were not very precise in terms of how patients were assigned to classes. Nonetheless, there does appear to be a core set of commonly used criteria across the literature, namely one or more of the following:

- triage category;
- whether or not a visit was planned (e.g. as a return visit);
- whether the patient was self-referred or referred by a General Practitioner;
- whether or not the person was admitted;
- whether or not the person required hospital-specific diagnostic facilities.

Despite set criteria or loose definitions, the triage decision and care classification (urgent or possible primary care) is influenced by the patient's symptoms on their arrival to the Emergency Department. So the question emerges concerning whether patients can reasonably be expected to make informed decisions regarding their symptoms of where they need to go for treatment.

**Table 1: Definitions of primary care patient / ‘inappropriate’ patient presentations in Emergency Department**

Country	Study	Definition used by author(s)
Australia	Andersen & Gaudry 1984	Unclear – assumed knowledge of primary care
	Bezzina et al 2005	Lack of acuity and/or urgency (Triage category 4 or 5) Self-presentation (not referred) Care deliverable by GP No need for admission
	Cooper, Simpson & Hanson 2003	Triage categories 4 and 5
	Dent et al 2003	Defined <u>appropriate</u> presentations as: <ul style="list-style-type: none"> <li>• Referred by another source</li> <li>• Triage category 1, 2, 3</li> <li>• Needing 4 or more hours observation</li> <li>• Require admission</li> <li>• After hours (2200 – 0700)</li> </ul> All other presentations were considered ‘inappropriate’
	Forero et al 1994	Minor complaints/injuries classed by medical officer as “ambulatory not severe enough to require Emergency Department”
	Marks, Steinfert & Barnett 2003	No definition provided
	Sprivulis 2003	A patient that a General Practitioner would not refer to an Emergency Department
	Vietch, Wallace & Doolan 1999	Type of care normally delivered in general practice, excludes major trauma, and intensive emergency situations in which an individual cannot make decisions
UK	Campbell 1994	All self-referred patients to ED
	Coleman, Irons & Nicholl 2001	Triage category 4, 5 Self-referred Discharged home Retrospectively – minor treatment and no investigations

Dale et al. 1995	Self-referred, non-emergency problems, acute symptoms unlikely to require admission or urgent assessment, and non-urgent complications of chronic conditions
Green & Dale 1990	Professional judgement based on - Without serious illness or injury Patients age, social status, pain level, social problems evident, seen previously by General Practitioner, duration of problem all factors
Hull et al. 1998	Retrospective classification, based on mode of arrival, associated investigations, treatment and outcomes
Lowy, Kohler & Nicholl 1994	Low triage category Self-referred Retrospectively – able to see a General Practitioner Not admitted
Murphy 1998	No accepted practical definition of 'inappropriate' or 'emergency'
Murphy et al. 1999	Triage categories 3 and 4 Not referred by General Practitioner
Myers 1982	Subjective opinion by researchers of acuity and/or urgency
Rajpar, Smith & Cooke 1999	Patients with non-emergency problems, and triaged not to require treatment within two hours
Sanders 2000	No standard definition, 3 themes emerged: <ul style="list-style-type: none"> <li>• Non-accident or emergency</li> <li>• Symptoms longer than 24 hours</li> <li>• Investigations or treatment normally requiring General Practitioner or nursing services</li> </ul>
Walsh 1993	Questions the term 'inappropriate', stating patients have legitimate reasons for presenting
Williams 1984	Condition that could be treated by General Practitioner Refutes time criterion
Wise 1997	Condition that could be treated by General Practitioner
Worth & Hurst 1989	Condition that could be treated by General Practitioner

Canada	Afilalo et al 2004	Triage category 5
	Boushy & Dubrinsky 1999	Not brought in by ambulance Over 16 years of age Low triage category
	Vertesi 2004	Triage category 4 and 5
USA	Asplin 2001	Professional judgement by medical and nursing staff
	Brown et al 2000	Enabled patients to choose from a list of presentations and define 'emergency' conditions that require same day medical care
	Diesburg-Stanwood et al 2004	Triage category 4, 5 Medical and/or nursing opinion of urgency and acuity
	Gill, Reese & Diamond 1996	Professional judgement by medical and nursing staff
	Gill & Riley 1996	Patients who can wait safely for several hours or more for evaluation as determined by triage nurse
	Grumbach, Keane & Bindman 1993	Triage score of 4 (using 4 point system) Pain level Duration of symptoms
	Guttman, Nelson & Zimmerman 2001	Professional judgement by medical and nursing staff
	Jeffery 1979	Patients that had broken the 'rules' <ul style="list-style-type: none"> <li>• Responsible for own illness</li> <li>• Uncooperative with medical intervention</li> <li>• Able to perform normal living activities</li> </ul>
	Lowe & Bindman 1996	Professional judgement by medical and nursing staff Retrospective review of the medical record
	Lowe et al 1993	Low self-assessment, happy to see alternative service Triage assessment Retrospective analysis of presentation and treatment provided

	O'Brien et al 1996	Low triage category No explicit procedures performed Emergency physician considered suitable for General Practitioner care
	Richardson & Hwang 2001	No valid and reliable definition
	Roth 1972	Subjectively based on staff beliefs and society norms
	Sempere-Selva et al 2001	Self-referred, Non-admission, GP treatable Appropriateness defined using a protocol of clinical factors
	Washington et al 2000	Patient symptoms at triage fit within clinically detailed guidelines
Netherlands	Rieffe et al 1999	Uses a classification scheme based on clinical conditions Self-referred Minor complaints
Sweden	Krakau & Hassler 1999	Doctor recorded appropriate level of care, and urgency. Determined whether GP treatable
France	Lang et al 1997	Not recent symptoms or recent and minor symptoms No feeling of emergency by the patient Not requiring technical equipment for treatment or diagnosis
Portugal	Pereira et al 2001	Defines <u>appropriate</u> as: <ul style="list-style-type: none"> <li>• Transfer in</li> <li>• Death in department</li> <li>• Requires admission</li> <li>• Requires diagnostic tests and treatment</li> </ul> All other patients considered inappropriate
New Zealand	Hider, Helliwell & Ardagh 2001	Unwilling to define for NZ population

In these 46 articles, it is evident that there is no clear and universal method of defining what represents this group of possible primary care presentations that come to Emergency Departments. The literature in this review noted the difficulty in defining what is an 'inappropriate' patient or a 'primary care/non-urgent' presentation.

A variety of methodologies were used in the literature reviewed. Irrespective of how a study or review was performed, no common, valid definition of 'appropriate' presentations emerged.

Despite the lack of definition between health professionals that is evident, some themes do emerge from this array of articles. These are outlined below.

1. Lack of clarity regarding the term 'appropriate' when referring to patients coming to an Emergency Department. Twenty two (22) articles discussed the difficulty of defining 'appropriate'. This occurred predominantly in literature from the USA (Richardson & Hwang 2001), Australia (Marks, Steinfort & Barnett 2003) and Canada (Vertesi 2004), but no reason emerged to identify why this may be so. Literature from the UK only reported this difficulty in 5 of 15 articles. These UK studies and reviews were more specific in their criteria of what constituted a possible primary care patient than the others, for example, Coleman, Irons & Nicholl (2001) who clearly, but retrospectively, identify patients with triage category 4 or 5, who self-refer and are discharged home. A number of UK authors use the criterion of being able to be treated by a General Practitioner to define possible primary care patients (Lowy, Kohler & Nicholl 1994; Williams 1984; Wise 1997; Worth & Hurst 1989). These are all based on professional judgement which is prone to subjectivity.
2. Disagreement among health professionals about what constitutes 'appropriate'. Variations in attempts to define 'appropriate' occurred in some literature. The definitions were generally opinion based and had no evidence to support why they had been chosen. Consequently variations occur as each author has their own opinion they are purporting. Definitions ranged from presentations that could be seen by a General Practitioner (Dale & Williams 1999, p.40), to self-referred and over sixteen years of age (judging the patient to be an adult) (Boushy & Dubrinsky 1999), to acute symptoms not likely to require admission or urgent assessment (Dale et al 1995), to professional judgement (Guttman, Nelson & Zimmerman 2001, p.162). Some, like Grumbach, Keane & Bindman (1993) stated appropriateness was determined by professional judgement of clinicians at the patient's presentation. This is frustrating as it does not allow consensus to occur between clinicians. It also

disallows valid comparison to be made between departments nationally or internationally. Further, it discounts 'inappropriate attenders' making decisions correctly and safely.

Professional judgement was considered the sole requirement for determining appropriateness by six authors. This is subjective and was demonstrated as such by Forero et al (1994) who considered appropriateness as a patient being ambulatory and "not severe enough to require Emergency Department" to be a suitable definition. This subjectivity is ridiculous. This is further illustrated by Myers (1982) and Diesburg-Stanwood et al (2004) who allow 'appropriate' to be defined by the clinician's opinion of the patient's acuity. These examples show how practitioner's professional judgement is very subjective in this area. This again highlights that patients cannot be expected to make valid and safe decisions about where to go for treatment when there is no evidence based material outlining information relevant to patients and decisions they may make concerning treatment options.

Professional judgement can vary between health professionals even when they have the same training, as demonstrated in Gill, Reese & Diamond's (1996) article, for example, nurses with identical training. Agreement between health professionals occurred only in relation to the need for patient education related to appropriate use of the Emergency Department (although what constitutes appropriate was not defined) (Green & Dale 1990, p.160). Green & Dale (1990) wrote one of very few articles outlining emergency nurses' views. They argue that the lack of agreement regarding what constitutes 'inappropriate' may be a result of emergency nurses' experience in relation to patients presenting to the Emergency Department with apparently minor conditions who are later found to have serious problems when investigated (Green & Dale 1990, p.160). Guttman, Nelson & Zimmerman (2001) agree with this possible difficulty in defining an appropriate visit to an Emergency Department. They found in their study, through the use of semi-structured interviews with senior Emergency Department medical officers and nurses, that differing views and approaches to 'inappropriate' patients reflect conflicting ideologies that health professionals hold. That is, some health



professionals are more tolerant of possible primary care patients and deem that they have a right to be seen in the Emergency Department, whereas others are clearly disparaging of such presentations, seeing them as a waste of time and interfering with true workloads (Guttman, Nelson & Zimmerman 2001, p.174).

3. There is no accepted practical definition of what an 'emergency' presentation is. International literature has shown this to be true amongst nursing and medical staff and between various levels of experience and training. Many experts, patients and emergency department personnel have commented on the definition but nothing has been documented as determining appropriateness when applied to specific patients (Afilalo et al 2004; Lowe et al 1993; McCabe 2001; Washington et al 2000). In all the studies examined there was inconclusiveness in relation to what constitutes a true emergency. Previous study results of inappropriate/possible primary care presentations were reported by Afilalo et al (2004) and Bezzina et al (2005). These were noted to range from 5-89%. Hence how many patients are appropriate? There was poor methodology in a number of studies when ascertaining what is 'appropriate', many relying on health professional judgement (Asplin 2001; Green & Dale 1990; Guttman, Nelson & Zimmerman 2001; Lowe & Bindman 1996) or on triage category (Diesburg-Stanwood et al 2004; Grumbach, Keane & Bindman 1993; Vertesi 2004). This is unsuitable as health professional judgement varies (as evidenced in point 2) and triage category is an indicator of the maximum time a patient can safely wait for medical assessment and treatment (Australian Government Department of Health and Ageing 2005), not a determinant of appropriateness. Sprivulis (2003) agrees stating that urgency is a measure of timeliness in which medical attention should occur rather than a measure of acuity; therefore the low categories do not necessarily indicate low acuity patients or mean that they are less appropriate.

Considering these three issues that emerged from the literature regarding lack of definition between health professionals of what constitutes an 'inappropriate' patient, it is evident that there is no accepted definition of what an 'appropriate' patient is and for this reason 'inappropriate' definitions are inconsistent and vary greatly.

From these themes, there is an assumption that patients should make informed decisions about their health requirements. The question needs to be addressed regarding how reasonable it is to expect lay persons to decide if they meet any of the identified criteria from the literature, particularly since health professionals can't agree on what constitutes inappropriate or appropriate attendance at an Emergency Department. Two problems emerge from this:

1. General Practitioners see varying levels of acuity according to their skills. Patients cannot be expected to know medical skill level of various General Practitioners and hence decide who to see for different ailments or injuries;
2. Patients are not in a position to make decisions for themselves about 'appropriateness' for various settings; they act according to their perception of their condition at the time.

From the literature reviewed regarding lack of definition between health professionals of what constitutes an inappropriate patient, the most sound ones to emerge (in relation to rigour and validity) were those by the following authors – 1. Lowe & Bindman (1997), 2. Washington et al (2000) and 3. Bezzina et al (2005). These will be discussed in further detail now.

1. Lowe & Bindman (1996) used a global approach with patient questionnaire, triage assessment and retrospective review of the medical record to ascertain 'appropriate' presentations. This enabled them to see inconsistencies between clinicians in their views of 'appropriateness'. This study, conducted in the USA, was more rigorous than others reviewed due to the comparison of results obtained from the three approaches used. 596 patients were included in the study – completing a questionnaire and having their triage form and medical record examined retrospectively. From these aspects, seven appropriateness criteria were developed – two each from the patient questionnaire and the triage form, and three from the chart review. The criteria established whether the patient thought the visit was appropriate, what the triage category given to the patient was, and whether the patient was admitted to hospital, had procedures performed or would have deteriorated if not seen within 24 hours (as determined by an emergency physician). This criteria attempted to be objective and utilised senior nursing and medical staff to

review the triage and medical notes. So the study included both prospective and retrospective components in an attempt to determine an 'appropriate' Emergency Department presentation. It found using these criteria that 63-80% of Emergency Department patient visits were appropriate (95% confidence interval). The authors admit bias may be present due to imprecise or unreliable methods for measuring the appropriateness criteria they used (Lowe & Bindman 1996, p.135). Despite establishing criteria for determining appropriateness of Emergency Department visits, the study had poor agreement amongst its criteria, that is, it had poor inter-rater reliability. This was possibly due to the inconsistency between individuals reviewing the notes regarding their beliefs of appropriateness.

This study was conducted in a single Emergency Department and so has little comparability for other departments. The data was collected in 1990 and hence the number and types of patients presenting to Emergency Departments have changed significantly in that period.

2. Washington et al (2000), in another US study, developed explicit, standardised, deferred-care criteria that could be used by emergency nurses at triage. Deferred care referred to patient presentations that could be seen the following day according to a panel of emergency physicians, interns and General Practitioners (two panels consisting of 8 and 9 members). The panels reviewed a list of 313 clinical scenarios to determine whether next-day care could safely occur. A 2 round modified Delphi process was used to perform the reviews. The process of determining the criteria for deferral of care was rigorous in review of criteria and in use of appropriately trained medical officers. The modified Delphi process was based on a tested model that incorporated expert clinical judgement with synthesis of relevant literature to make medical decisions. The first round preceded and the second round met to discuss any areas of uncertainty or disagreement amongst panel members. Medical safety was defined as the patient not having preventable morbidity from deferral of care. This definition was used by the panels to rate the scenarios using a 9 point scale (adapted from a previously published appropriateness scale) where 9 indicates a high degree of safety in delaying care by one day to a non-emergency setting, 5 means safety of deferred care is uncertain, and 1 indicates it is very unsafe to delay care by one day.

All 313 detailed scenarios for next day care in non-emergency settings were determined and agreed upon in relation to criteria and safety by the panels. It is not indicated how many scenarios were agreed upon. Deferred care guidelines resulted from this process, that is, listed patient conditions and presentations that could safely wait for medical care/treatment for up to one week.

Experienced triage nurses (minimum of one year in an Emergency Department) were trained in the use of the deferred care guidelines over 8 hours prior to their implementation. This strategy of education was supported by an emergency physician who could assist and evaluate patients if required. This implementation approach ensured all triage nurses were familiar with the guidelines and hence consistency in the approach to and results of 1187 ambulatory patients occurred.

The guidelines were limited to abdominal pain, musculoskeletal symptoms and respiratory infections in an Emergency Department for Veteran Affairs patients. This was a specific population the study looked at and hence the criteria developed may not necessarily be transferable to other patient populations since Veteran Affairs patients commonly have many comorbid conditions, which were considered when the criteria for deferral of care were defined.

The study found unanimous agreement on lists of complaint-specific criteria in presenting Veteran Affairs patients. The criteria when applied to patients would enable consideration for safe deferred care (Washington et al 2000). The authors advocate these criteria for use by other Emergency Departments. It is questionable whether this would be appropriate, it would need to be piloted by another site with a different population to replicate and validate the tool for a wider audience. The study was conducted in a single department and so is not necessarily able to be generalised to other departments, nationally or internationally.

3. Bezzina et al (2005) performed a systematic review of 34 papers which contained a proposed definition or comment on the definition for possible primary care patients in Emergency Departments. The definition proposed was based on their findings in the literature. This was a structured systematic review with clear methods allowing

reproduction of the search. The process of searching outlined a thorough method which encompassed large volumes of literature. The only database used however was Medline. The authors acknowledge significant variations between the literature which reflect differences in application of terminology (Bezzina et al 2005, p.474). From the literature, the authors condensed the information to provide a representative definition which they assert can be used retrospectively or prospectively. This definition is a patient who:

- Has low urgency and/or acuity – represented by triage categories 4 and 5 in the Australasian Triage Scale
- Is self-referred
- Has presented for a new episode of care
- Is unlikely to be admitted according to the Triage Nurse; or ultimately is not admitted

(Bezzina et al 2005, p.474).

This review was replicable and transparent. It used sound methodology and despite the literature reviewed being predominantly international, managed to bring together a definition that could be used prospectively or retrospectively in any Emergency Department setting.

Bezzina et al (2005) acknowledge that the concept of what is an appropriate Emergency Department visit and what constitutes a possible primary care presentation is lacking in agreement between health professionals and thus remains undefined.

Bezzina et al (2005) is a literature review as opposed to the study settings of Lowe & Bindman (1996) and Washington et al (2000). It stands out as the best definition as it offers a clear definition which the other articles don't. This article stands out as best because it has a clear definition that emerges which specifies what is required to define a possible primary care patient. The authors acknowledge that emergency medicine is a generalist profession where there are no obvious boundaries with other clinical specialties (Bezzina et al 2005, p.476). They also note that variability between systems nationally and internationally are unavoidable.

The patient is considered briefly within the discussion as having circumstances and factors that influence their decision to attend an Emergency Department for treatment, and hence make them appropriate. This is not expanded but could have been considered in conjunction with the definition provided to test the validity of the definition provided from the literature reviewed.

The article by Bezzina et al (2005) is written from a medical perspective. This is reinforced by the use of the Medline database only. It would be more rounded using other databases to support the literature gathered from Medline.

Given the potential variability that may occur, the authors do not commit to their definition as being valid and useful for comparison nationally or internationally. They consider too many patient, department and staff inconsistencies to stand by the definition. The researcher believes this definition is useful and able to be used for comparison when considering possible primary care patients. This definition had become available as part of the parent study research process and was later published by Bezzina et al (2005). The definition given by Bezzina et al (2005) is what the researcher used to define possible primary care patients for the emergency nurses completing the questionnaire as she believed it to be the best, most valid definition found throughout any literature searching.

## **Theme 1 Summary and Conclusion**

In summary, it is evident that there are diverse and varied classifications of what constitute both 'appropriate' and 'inappropriate' presentations to Emergency Departments. Although some authors have used specific criteria for classification, there is no consistency amongst authors that emerges through literature internationally. There is no common definition identified in the literature reviewed. This is clearly a vexed issue with little concrete material concerning appropriateness. If clinicians and researchers cannot agree on what constitutes appropriate or inappropriate attendance at an Emergency Department, then patients (and their relatives) cannot be expected to determine the correct place to present.

Bezzina et al (2005) drew the threads of definition together from the literature in a clear way. Hence the researcher used the definition adapted by Bezzina et al (2005) in the questionnaire given to staff indicating to them what constituted a possible primary care patient. This definition was used as it was deemed to be the most thorough method used to develop a definition of what represents a possible primary care patient.

## **Theme 2: Health professionals' perceptions of possible primary care patients in the Emergency Department**

Health professionals' perceptions of possible primary care patients presenting to Emergency Departments, often labelled non-urgent or 'inappropriate', have remained relatively negative through the literature over the years. This second theme identified through the literature will examine health professionals as a whole as there are few pieces of literature that discuss various groups of health professionals separately. Within this theme are two sub themes regarding health professionals' perceptions of (or attitudes towards) possible primary care patients presenting to Emergency Departments. These are 'evidence of negative attitudes' and 'the implications of negative attitudes towards possible primary care patients'. Once these have been considered, another sub theme surfaces which asks the question of 'how reasonable is it to have a negative perception of possible primary care patients'. This is a key element to reflect upon as it can be applied to the study being reported regarding nursing responses to possible primary care patients.

Throughout the literature most health professionals are identified as having fairly negative attitudes towards possible primary care presentations to the Emergency Department, labelling them as 'inappropriate' (Sanders 2000, p.1098), 'minor' (Guttman, Nelson & Zimmerman 2001, p.162), 'trivial' (Dale & Williams 1999, p.39), 'users' (Jeffery 1979, p.90), 'bad' (Dingwall & Murray 1983, p.131), 'annoying' (Crouch & Dale 1994, p.289) or 'rubbish' (Dingwall & Murray 1983, p.131). It is significant that such negative attitudes are documented throughout the literature and will now be discussed.

### **Evidence of negative attitudes**

The literature began to discuss the concept that possible primary care presentations were 'inappropriate' in the 1980's (Guttman, Nelson & Zimmerman 2001; Sanders 2000). With cost recorded as the main consideration, this group of attendees were then targeted with a view of removing them from Emergency Departments, hence reducing the costs associated with seeing this group of patients. Strategies were implemented to discourage these 'inappropriate' patients presenting to Emergency



Departments, including public education advertising the use of General Practitioners and the value of consistent care that they are able to provide.

Possible primary care patients are labelled as inappropriate users (or misusers) by health professionals who claim to equate appropriateness with urgency strictly from a medical point of view (Afilalo et al 2004, p.1302). Some health professionals view medically non-urgent presentations to the Emergency Department as unwanted, but ever-present, and perceive them as an insult to the Emergency Departments mission (Guttman, Nelson & Zimmerman 2001, p.166). This shift of blame to the patient who presents with a possible primary care problem has been attributed to the perception that these patients are responsible for their own illnesses and/or injuries as far back as 1979 (Jeffery 1979). Jeffery (1979) asserted that patients are responsible since they either do not want to get better, they engage in activities of high risk for injury/illness, or they do not cooperate with current treatments. Jeffery (1979) did not offer any evidence to support his assertions, his article was opinion based. It does however reinforce the anecdotal assumption behind my research being reported. It is unclear whether the author was a nurse or even a health professional with any experience in the Emergency Department. Considering the lack of evidence and detail regarding personal qualifications, this article holds no validity and cannot be taken into consideration as anything more than personal speculation by the author. It is very much an historical piece of literature that comments on the state of patient presentations and Emergency Departments in the 1970's. Given the enormous changes that have occurred in the last decade to Emergency Department workloads and models of care, it is difficult to compare this work with modern Emergency Departments.

The use of the Emergency Department as a source of primary care delivery (irrespective of the proportion) is portrayed through the literature as a real issue. It is an issue because, in an environment characterised by urgency, anything not fitting this criteria implies wasted time. This is time that perhaps could have been better used to help someone else with a more acute problem (Malone 1998).

At this point it is relevant to refer to the point identified in theme 1 which identified that there is a lack of an accepted definition of what constitutes a possible primary

care patient. It was evident in that literature that different measures of what is appropriate are used internationally and can lead to discrepancies in grouping possible primary care patients. Comparison for Australian purposes is very difficult when most of the articles were from the United Kingdom and the United States (which uses a markedly different system and is driven financially).

Hence, health professional's negative attitudes towards this population reported in the literature cannot be viewed with any consistency. Once a valid and constant definition of what constitutes possible primary care patients is determined, the evidence of negative attitudes towards this population could be considered and used reliably. This point substantiates the need for research using a common definition of possible primary care patients to be targeted at health professionals to enable valid reporting of attitudes and perceptions. This is significant for the study being reported here.

In summary, negative attitudes by health professionals are commonly portrayed through history in the literature. But these attitudes cannot be compared in any way until a common definition of what constitutes possible primary care patients is accepted and used by health professionals. Considering that negative attitudes pervade health concerning this patient population, it is pertinent to discuss how these may affect possible primary care patients who come to an Emergency Department. This will now be examined.

### **Implications of negative attitudes towards possible primary care patients**

Sanders (2000) performed a systematic review of literature to critically examine past research into health professionals' perspectives and attitudes towards 'inappropriate' presentations to Accident and Emergency departments in the United Kingdom. The review only included British studies. It was a thorough and reliable review; however it is limited in its wider application since it has significance for the United Kingdom only, due to the inclusion criteria. From her review of 50 papers, Sanders (2000) found that medical bias and 'blaming the patient' was a part of the health professionals culture (Sanders 2000, p.1102). This was evidenced by health professionals' passing judgement on the medical 'appropriateness' of the presenting condition from a qualified perspective and not considering the patients reason for

attending. Sanders (2000) implied that this may inadvertently lead to a lowering of service standards (Sanders 2000, p.1102).

Guttman, Nelson & Zimmerman (2001) interviewed 26 health professionals (16 medical officers and 10 nursing staff) using a semi-structured interview regarding assessment, appropriateness of patient visits and communication styles with various presentations. The study focused on paediatric presentations to two urban Emergency Departments in the United States. All staff interviewed worked only in the Emergency Department. The authors state it was difficult to conduct the interviews, with frequent interruptions during the process due to such things as phone calls for staff, requests for assistance with patients and by other staff for other clinical or ancillary support. Using a grounded theory approach, the authors coded the data and found three themes emerged. They labelled these themes as Emergency Department use ideologies since they appeared to represent “deep seated beliefs regarding what was right and how things should operate” (Guttman, Nelson & Zimmerman 2001, p.164).

Guttman, Nelson & Zimmerman (2001) found that the dominant position held by most of the health professionals interviewed was one of negativity. They also found that whatever the position held by health professionals towards possible primary care patients impacted on the communication style they used with patients (Guttman, Nelson & Zimmerman 2001, p.173). Hence some patients were treated respectfully whilst many were not. This study was valid and reproducible but was restrictive in that it only considered a paediatric population, which included parents of the paediatric patients. The ideologies that emerged should be examined further in a mixed setting to establish if they are consistent across age boundaries.

Most reports in the literature reviewed referred to negative attitudes towards possible primary care presentations by health professionals. This was often marked by negative behaviour demonstrated by less sympathy, increased irritation, negativity, bias and lower motivation to help this patient population (Crouch & Dale 1994, pp.289, 295). It was also reported that this group of possible primary care patients contributed to lower health provider morale as they contribute to an increased workload not deemed relevant to the service being offered (Howard et al 2005, p.430). This decreased morale could affect possible primary care patients as health

professionals stigmatize this group which may potentially lead to a lower level of care provision.

The literature reviewed here was generally subjective and used varied data collection tools, ranging from questionnaire to systematic review to retrospective review of notes. This made it difficult to obtain any consistent data regarding what health professionals' consider 'inappropriate' and how they feel about such patients.

However, from the literature examined, negative attitudes towards possible primary care patients are consistently linked with blaming patients for time wasting, poor communication with patients, and likely lower levels of care provision. So if this is occurring, it should be asked if this attitude towards possible primary care patients is acceptable for health professionals. This question will be looked at now.

### **How reasonable is it to have a negative attitude toward possible primary care patients?**

In a range of studies, varying proportions of presentations were classified as non-urgent by health professionals, varying from 5-89% (Bezzina et al 2005; Coleman, Irons & Nicholl 2001). This enormous range is due to, and shows, the lack of definition for what represents a possible primary care presentation to an Emergency Department. It also displays that perception of possible primary care presentations to Emergency Departments is individual. Furthermore, to describe a patient's attendance at an Emergency Department as 'inappropriate' is quite controversial as it is argued by many health professionals that the facility should represent a primary community resource for both urgent and non-urgent complaints (Oates, Heslop & Boord, 1997).

The 1992 Australian National Health Strategy reported that many patients who present to an Emergency Department would be better managed in other medical settings such as general practice (Bolton, Mira & Sprogis 2000, p.133). Many papers support this view, however it is important to note that urgency of care is difficult to define. According to the Australasian College of Emergency Medicine (2004), urgency refers to the need for time-critical intervention and is not equal to severity. Patients triaged to lower acuity categories may be safe to wait longer for assessment

and treatment but may still require hospital admission. Therefore no generalisation can be made regarding triage categories and possible primary care patients.

From the literature reviewed here it is evident that some health professionals consider it reasonable to have a negative attitude towards possible primary care patients coming to Emergency Departments. From a duty of care perspective this must be questioned. Nurses have an obligation to care for all patients that come for medical treatment (ANMC<sup>1&2</sup> 2008). Therefore the question asked 'how reasonable is it to have a negative attitude toward possible primary care patients?' can be answered with a certain 'not reasonable at all' response when considering the components of a nurses Code of Professional Conduct and Code of Ethics that they abide to for registration or enrolment in NSW (ANMC<sup>1&2</sup> 2008). The question cannot be answered from the literature reviewed but only from a moral and legal perspective.

## **Theme 2 Summary and Conclusion**

A major feature to emerge from this review is the 'blame the patient' attitude displayed by health professionals. The common theme amongst health professionals' working in Emergency Departments was that they judged primary care presentations from a service/care provider perspective rather than from the perspective of the patient/parent presenting for care (Sanders 2000, p.1102).

The literature reviewed highlighted that health professionals working in Emergency Departments are mostly critical of patients that use the Emergency Department for nonurgent care. Health professionals throughout the literature are portrayed as having poor perceptions of possible primary care presentations coming to Emergency Departments. They are generally represented as considering primary care to be inappropriate in Emergency Departments.

This review has established that more research is required to clearly define the perceptions and attitudes of health professionals' toward the possible primary care patient presenting to an Emergency Department. The health professional must understand what is appropriate first and so a congruence of definition is required. This will then enable valid comparisons to be made between Emergency Departments.

Since the literature reviewed was predominantly international, it highlighted that little Australian work had been performed to identify health professionals' attitudes and perceptions towards possible primary care patients. This is positive for the research being reported here as it clearly identifies a gap in this information for the Australian context.

### **Theme 3: Variance between patient and health professionals' views of 'appropriate' presentation to an Emergency Department**

Patients and health professionals are shown to have differences in their perceptions of what constitutes appropriate presentations to Emergency Departments. In this section, patients' views will be examined, followed by health professionals' views as identified through the literature.

#### **Patient's views**

Patients reasons for attending Emergency Departments for primary care (however defined) are many and varied, although some common themes are evident in the literature, including availability of Emergency Department services (Gill & Riley 1996; Rieffe et al 1997), severity of the problem (Boushy & Dubrinsky 1999; Northington, Brice & Zou 2005), convenience (Anderson & Gaudry 1984; Sempere-Selva et al 2001; Thomson, Kohli & Brookes 1995), wanting a second opinion (Northington, Brice & Zou 2005; Rieffe et al 1999), needing services not available in general practice, such as radiography (Coleman, Irons & Nicholl 2001; Cooper, Simpson & Hanson 2003; Hider, Helliwell & Ardagh 2001) and that hospitals provide better care (Anderson & Gaudry 1984; Walsh 1995). The choice of the patient to visit the Emergency Department may be based on more than one motive (Rieffe et al 1999, p.219; Shah, Shah & Behbehani 1996, p.1314). Of these 12 studies, 7 surveyed patients regarding their perceptions. The remaining 5 performed retrospective notes review with Emergency Department staff. From the literature cited here, only two were Australian. These are Cooper, Simpson & Hanson (2003) and Anderson & Gaudry (1984). Considering Anderson & Gaudry (1984) is an old article, it may not have the same impact for patients today as it did 20 years ago in relation to hospitals providing better care. Cooper, Simpson & Hanson (2003) focused their study on parental reasons for taking their child(ren) to a mixed Emergency Department where adult and paediatric services are co-located. The study was performed in an Emergency Department servicing a diverse multicultural region where the authors claim a large proportion of the population are non-English speaking. This study was prospective and included all children who presented to a mixed Emergency Department over two months. The questionnaire tool used was available in the five

most commonly spoken languages so was able to be completed by a good cross section of the population under review. Questionnaires were given to parents of children presenting to the Emergency Department. A large study population was included (769) and 83% responded, 17% were non-English speaking respondents. Reliable analysis methods were used (SPSS and SAS) to compare independent variables. The analysis demonstrated the major finding of proximity as the key for parents of sick children coming to an Emergency Department. Following proximity as the primary factor in presenting to the studied Emergency Department was the belief that prompt service and good medical care would be received for their child as they would need more than was available to them in a primary health care setting (Cooper, Simpson & Hanson 2003, p.74). It is worth noting a potential bias that occurred as more respondents of the questionnaire were parents of children who were admitted, indicating a sicker population.

Cooper, Simpson & Hanson's (2003) inferred point pertaining to patients' potentially requiring services not provided in a General Practice setting is valid considering the study is recent. However, the study was designed to identify parental reasons for presenting their child to the Emergency Department and so may not be transferable to an adult population. A parent could have a markedly different reason for presenting their child to the Emergency Department to presenting themselves. This would need to be examined further to determine if there are varied reasons between paediatric possible primary care presentations and self-referred adult presentations. This study is not pertinent to the researcher's study which looks at adults reasons for presenting to an Emergency Department with a possible primary care problem.

The main point of interest gathered from the literature that looked at patient reasons for presentation to an Emergency Department was that patients considered they had valid personal reasons for attending Emergency Departments. For example, Afilalo et al (2004) found that patients presented to an Emergency Department as it was the most accessible option at the time of injury or illness (Afilalo et al 2004, p.1303). They found this by training a nurse researcher who then interviewed patients using a standardised questionnaire in a convenience method, interviewing the most recently registered patient following the completion of the previous patient interview. Data



was analysed using proportions and confidence intervals, and multivariate analysis to determine the predictive nature of the results.

This study by Afilalo et al (2004) was comparable to the researcher's study in that it aimed to compare nonurgent with urgent and semi-urgent presentations to determine patient reasons for choosing to present to an Emergency Department. It also used a Nurse Researcher to interview patients across five Emergency Departments. However, there were no criteria to establish which patients would perform the questionnaire so urgent and non-urgent triage classifications were studied. Another major difference to the researcher's study is that all the Emergency Departments in Afilalo et al (2004) study were tertiary referral hospitals (in Canada), thus limiting any rural comparison. The study was reliable and consistent in its approach across the settings, with all nurse researchers undergoing a 4 day training course with the research coordinator.

Olsson & Hansagi (2001) performed sound and unbiased qualitative in-depth interviews with ten frequent attendees (4 or more visits to the Emergency Department within one year) at a major teaching hospital in Sweden. The interviews were open questions conducted by two social workers and generally lasted one to one and a half hours. The transcribed narratives were then reviewed by a medical officer and themed. The data was analysed inductively and systematic comparisons of results performed. The authors found that the Emergency Department frequent attenders perceive pain or other symptoms as a threat to life or to personal autonomy and hence choose to come to the Emergency Department for treatment. The authors claim that patients attend Emergency Departments for valid personal reasons. Since this is a Swedish study, it is difficult to know how representative the respondents are of frequent Emergency Department users generally, especially when it comes to comparing to the Australian health care system. It is also a specific population that the study examines and so has little relevance to the research being undertaken by the researcher. However the principle of patients making valid decisions remains pertinent.

Often the inaccessibility to General Practitioner services was considered a core reason for visiting an Emergency Department for possible primary care conditions by

health professionals. However, possible primary care presentations to the Emergency Department have been documented in the literature as assessing their condition to be requiring urgent care that can only be provided at the Emergency Department, not because they are dissatisfied with their general practice services (Gill & Riley 1996, p.491; Northington, Brice & Zou 2005).

A commonly cited reason by patients for choosing the Emergency Department rather than their General Practitioner was the accessibility and expediency available at an Emergency Department (Gill & Riley 1996, p.491; Northington, Brice & Zou 2005). Rieffe et al (1999) refuted this reason however, after performing questionnaires for one week at two Emergency Departments in the Netherlands with 430 patients. Rieffe et al (1999) formulated a questionnaire based on a literature review and interviews with Emergency Department employees. They identified 21 possible motives for patients presenting to the Emergency Department, piloted the questionnaire twice to construct validity and reliability, and then implemented the tool. 780 patients were eligible to complete the questionnaire. Of this number, 511 undertook the questionnaire with 430 fully completing it. These ones were used for investigation using regression analysis.

Rieffe et al (1999) concluded that access to a General Practitioner was a minor component when deciding to bypass them and present to an Emergency Department. Instead, they said that the major reasons Dutch people present is because of convenience and confidence in the expertise provided by an Emergency Department. This study was rigorous, with the questionnaire being based on literature findings, piloted and then performed.

From reviewing the literature concerning patient reasons for presenting to an Emergency Department in preference to a primary care facility, it can be seen that people present to the Emergency Department for what they see as legitimate reasons. Hence it would seem that patients consider their presenting condition and make a deliberate choice to attend an Emergency Department rather than a General Practitioner.

## **Health professionals' views**

In the literature health care providers showed a lack of understanding as to why patients choose the Emergency Department as a route of care, not understanding that the majority of possible primary care presentations considered their chief complaint to be of moderate or serious complexity and/or requiring urgent medical attention (Howard & Davis 2005; Palmer et al 2005).

The limited ability medical officers had in estimating their patients' opinions and feelings, sometimes despite enduring relationships with them was highlighted in a few studies (Hall et al 1999; Jung et al 2002; Miner et al 2005; Shah, Shah & Behbehani 1996). Shah, Shah & Behbehani (1996) illustrate this point in a well executed study of over 2000 patients and treating doctors in six Emergency Departments in Kuwait. Both the patient and the treating doctor were asked to complete a questionnaire that assessed the perceived urgency of the Emergency Department presentation. Patients complete the questionnaire prior to be seen by a medical officer. Results were based on multiple logistic regression using the SPSS package. Results showed 23% of patients considered their visit to the Emergency Department as non-urgent, compared with 61% of treating doctors. Although a rigorous study, it is old (having been conducted in 1993) and relates to Emergency Departments in Kuwait where a different system of referral and presentation occurs (Shah, Shah & Behbehani 1996, p.1315).

Miner et al (2005), although recent, considered pain perceptions by patients and physicians treating them using an observational tool. It demonstrated a variance in perception by patients and staff but is not transferable or relevant in any other way to the research being reported.

Hall et al (1999) and Jung et al (2002) both considered patients satisfaction with various aspects of primary care provided in the General Practice setting and General Practitioners perceptions of the patients satisfaction. Both studies demonstrate variance but are not applicable to the research being reported as they focus on a General Practice setting. They could be helpful in ascertaining whether patients are satisfied with General Practice and if this could be a determinant in why they would

choose to present to an Emergency Department rather than a General Practitioner. However, this was not able to be determined from the studies as they focused on patients feelings regarding consultations. An important point gleaned from this literature is that discrepancy between health professionals and patients could potentially impact patients negatively as care would not be given to meet psychological and psychosocial needs. This was supported by a review in the United Kingdom where the prominent feature to emerge was the significant medical bias and 'blaming the patient' culture from the health professional perspective (Sanders 2000, p.1102).

Sanders (2000) in a review of UK literature outlined how health professionals pass judgement on the medical 'appropriateness' of a patients presenting condition from a qualified perspective, rather than from the patient's perspective. Sanders (2000) concern with the disparity was the natural formation of negative attitudes towards the patients themselves and that these negative attitudes may lead to a lesser service level provision. Sanders review (2000) is a systematic and well constructed comparison of literature, but it is a review and not a study indicating authentic attitudes and views of health professionals towards possible primary care patients.

Crouch & Dale (1994), in an English study performed in London, used a visual analogue scale to find out ten (10) triage nurses' responses to 550 patients presenting to the Emergency Department being studied. The aim was to identify nurses' feelings during triage assessments. Over a two week period all patients seen by ten triage nurses (who had been recruited into the study) were asked to complete a short questionnaire about their feelings and perceptions following completion of a patient triage. the questionnaire used a visual analogue scale to assist the triage nurses identify their feelings or beliefs regarding the following: how quickly the patient should be seen; sympathy evoked in the triage nurse; irritation felt toward the patient; motivation to help the patient; difficulty communicating with the patient; and aspects of the patients demeanour causing difficulty in assessment. The questionnaire was used to determine three factors regarding nurses' feelings towards patients – views of prioritisation; feelings that may fluctuate during a shift; and patient characteristics (such as behaviour or ethnicity) that may affect the nurses' feelings. The triage nurses had a minimum of six months Emergency

Department experience. They were asked to indicate their responses to each of the scales on the questionnaire for every triage consultation they performed by making a mark on the scale at the point which best represented their feeling or perception of the question being asked.

Using a thorough analysis of the data the study found that triage nurses demonstrated more negative feelings towards possible primary care patients than urgent presentations. The nurses described less sympathy, more irritation and less motivation to help possible primary care patients. These feelings were amplified if there was an increased duration from onset of illness to presentation. The study is limited in that it only included 10 triage nurses in an urban setting seeing a high proportion of possible primary care attenders.

Only one Australian study looked into health professionals' attitudes toward possible primary care patients attending Emergency Departments (Holden & Smart 1999). The study was performed in the Royal Hobart Emergency Department so is representative of Hobart Hospital only. The sample size was small (196). These factors limit the study's comparability. The study used a questionnaire with ten (10) questions concerning various aspects of the Emergency Department process, given to patients and staff. The results indicate a mismatch between the priorities of patients and what Emergency Department staff consider important. Patients were found to regard waiting times as an extremely important component of their visit to an Emergency Department, this being the most reported reason. Staff (medical and nursing) had a clinical focus and reported that they believed patients wanted to be treated professionally and caringly when seen. The authors did not explore reasons or attitudes behind these findings. The study focused on waiting times and how the findings justify waiting times as a performance indicator for emergency medicine. It therefore has little impact on the research being reported.

In summary, there is very little literature outlining health professionals' attitudes and opinions towards patients that present for treatment, whether to a General Practitioner or an Emergency Department. From the limited number of studies available it is evident that health professionals' opinions regarding possible primary care patients presenting for treatment to an Emergency Department are often

negative and invariably different to what the patient's view is. The comparison between health professionals' and patients' view will now be explored from the literature reviewed.

### **Comparison of patient and health professional views**

A key matter that emerged from the literature was the inconsistency between patients' perceptions of their needs and what health professionals' thought they required. Patients (and parents of paediatric patients) often considered their condition to be urgent and therefore appropriate for an Emergency Department presentation (Guttman, Nelson & Zimmerman 2001; Jacelon 2002; Northington, Brice & Zou 2005). Patients felt they had the right to be treated with respect as people who make independent choices about presenting to the Emergency Department (Coleman, Irons & Nicholl 2001; Cooper, Simpson & Hansen 2003; Guttman, Nelson & Zimmerman 2001).

Sanders (2000) was the only piece of literature found in the search that compared health professionals' attitudes towards 'inappropriate' attendances to Emergency Departments in parallel with 'inappropriate' patients' own perspectives on their attendance. Her review clearly showed a distinct difference in patients and health professionals perspectives of primary care presentations to the Emergency Department.

Sanders (2000) performed a critical review into past research using a modified Ganong (1987) review process. This entailed identifying the key characteristics of each published research study reviewed. The components examined were: hypothesis, sampling methods, study characteristics, results, analysis, interpretation of results, and the conclusions drawn from the results. Sanders (2000) then used two processes of content analysis. The first was to identify themes and the second was to perform a more detailed results analysis within the identified themes.

Sanders (2000) found that health professionals' believed appropriate presentations to Emergency Departments are ones which increase staff knowledge, test competencies and enable skill practice (Sanders 2000, p.1099). Patients not fitting these descriptors were considered inappropriate and unrewarding and often received

less sympathy and more irritation by nursing staff (Sanders 2000, p.1100). Sanders (2000) also found many nurses thought that patients had little knowledge and understanding of the function of Emergency Departments and General Practitioner services (Sanders 2000, p.1100).

By comparison, Sanders (2000) found that patients frequently believed their condition to be an emergency requiring treatment at the Emergency Department. In her view, patients attend an Emergency Department as it provides open access to care and avoids barriers to prompt treatment such as inability to get an appointment with a General Practitioner (Sanders 2000, p.1101). Many patients anticipated requiring a service that cannot be provided at a General Practitioner, such as radiography.

It is evident from this review that staff and patients hold significantly different beliefs regarding reasons for presentation to an Emergency Department. Staff are concerned with things that affect them (such as interest and clinical skill required). Patients are also concerned with what affects them, that is, the symptoms or condition requiring treatment. This will be discussed at a later point.

A few other studies not directly related to Emergency Departments, but looking into comparisons of nurses and patients perceptions, found that the two groups do not view or appraise situations or aspects of care similarly. This was particularly highlighted by Lynn & McMillen (1999) and Sobo (2004). Lynn & McMillen's (1999) study compared nurses and patients ranking of importance of items reflective of good nursing care. Patients rated the importance to them, whereas nurses rated according to how they perceived patients would rate it, thus enabling interesting data comparison. The study was conducted in seven hospitals across the south-eastern USA, covering metropolitan and rural settings. Participants were from a variety of wards. Of the 90 items the participants rated, patients rated 46 more highly than nurses, relating generally to the environment, psychological aspects of care and the professionalism of nurses. This included equipment being available, receiving medications on time, nurses listening to them, and the nurse is skilful, especially with needles. Nurses rated 5 items more highly than patients, generally related to nursing competence. These included knowing what they were doing, being competent and

knowledgeable. The study demonstrated that nurses seem to underestimate the value that patients place on a variety of elements of nursing care. This holds little relevance to the research being reported as it considers longer term care in a ward environment rather than an acute setting.

Sobo (2004) carried out her study in a paediatric setting. She examined communication preferences of parents (and patients when over 12 years of age) and compared these with what nursing staff thought they wanted. The author developed an assessment tool based on literature reviewed and an internal needs assessment from the ward it was performed in (paediatric haematology-oncology). The developed tool was sound, incorporating quality tools (such as Plan, Do, Study, Act) and pilot testing for validity and reliability. It sought to identify patient and parents communication preferences with staff. The tool was then completed by 51 participants – either paediatric patients over 12 years of age, or parents of children in the ward.

The results firmly established that nurses are often in error when inferring patients/parents preferences. The study demonstrated that nurses' assessments matched parent/patient self-assessments only one third of the time. For example, the study found that nurses underestimated parent/patient information desires 50% of the time. Nurses considered that parents/patients wanted to receive less information about their stay and treatment than they were given so they weren't overwhelmed. This did not correlate with patient results. Although sound, the study was biased towards female responses with only 8 out of 45 participants being male.

These studies by Lynn & McMillen (1999) and Sobo (2004) do not relate directly to Emergency Department care or primary care patients attending an Emergency Department, so although useful for general comparison cannot necessarily be applied to the Emergency Department environment. However, what can be taken from these studies is the variance between patient and health professional beliefs and opinions. This supports the research being reported in relation to this variance. This will be discussed later.



A couple of studies show patients and health professionals to have markedly different perceptions of care and urgency (Lattimer, Glasper & George 1995; Walters et al 2000). This was done by surveying both the patient and the health professional and hence enabling comparison of perspectives. Although demonstrating differences in perceptions of care and urgency, both studies were conducted in General Practice, and are therefore not explicitly relevant to the Emergency Department setting.

Walters et al (2000) found from their study that there is poor agreement between what health professionals' and patients' identify as unmet needs in their care. They only looked at elderly people aged 75 and over within general practices in London. Hence its comparative value is limited in an Australian context in Emergency Departments seeing all age ranges.

Lattimer, Glasper & George (1995) also dealt with general practice patients and General Practitioner responses in the south of England concerning after hours services for emergency needs. This study is highly specific in its aims and outcomes. It found that General Practitioners do not consider half of the out of hours calls made to them to be necessary, although patients are concerned and are seeking help for what they consider to be legitimate illness or injury. The study does highlight the variance in perceptions of both groups but holds no other value when considering Emergency Department use or health professionals' perceptions within the Australian health context.

### **Theme 3 Summary and Conclusion**

In summary, this review clearly demonstrated that inconsistencies exist between health professionals' and patients attitudes towards Emergency Department attendance.

As highlighted previously the literature reviewed was mainly international, that is, not Australian. It was evident that internationally different measures of what is appropriate are used, if at all, and can lead to inconsistency between health professionals from different countries. From the literature examined in this review,

the patients' reasons for presentation were found to be legitimate with varied reasons for choosing the Emergency Department (Afilalo et al 2004; Cooper, Simpson & Hanson 2003; Olsson & Hansagi 2001).

It is clear that patients consider their condition and make thoughtful choices about where they will seek help (Afilalo et al 2004; Coleman, Irons & Nicholl 2001; Cooper, Simpson & Hanson 2003; Douglass et al 2004; Hider 2001; Lowe & Bindman 1997; Olsson & Hansagi 2001; Pereira et al 2001).

There were evidenced differences in opinions and reasons between presenting patients/parents of patients and health professionals. Health professionals tend to focus on medical care, the legitimacy of the patients visit determined from a medical perspective and treatment required. Patients however, seem more concerned with other factors surrounding the condition and their social situation or environment at the time of the illness/injury.

So the question emerges, does this variance in perception between patients and health professionals influence or affect the care and treatment being provided to patients who present to an Emergency Department with a possible primary care problem? And if so, how? This will be examined in the next theme, 'the impact of health professionals' perceptions on patients'.

#### **Theme 4: The impact of health professionals' perceptions on patients**

Referral (or deferring care) to alternative services will not necessarily have much impact on the Emergency Department because people will present to the Emergency Department for what they consider to be legitimate reasons (Coleman, Irons & Nicholl 2001). Therefore it is important to ascertain how health professionals' attitudes towards possible primary care presentations impact on the care provided in an Emergency Department setting.

From the literature reviewed a number of potential influences on patient care occur when health professionals' have negative perceptions of possible primary care patients attending the Emergency Department. These will be discussed now.

The literature highlights that health professionals' pass judgement on the medical 'appropriateness' of the presenting condition from a qualified perspective of those seeking medical attention. The 1990's saw strategies developed to triage 'inappropriate' presentations away from the Emergency Department to alternate sources. By the late 90's however, the hazards of refusing care in the Emergency Department were identified and the Emergency Department was recognised as a safety net provider for care (Asplin 2001; Richardson & Hwang 2003). Strategies which discourage attendance at the Emergency Department are potentially dangerous. Patients are not trained to recognise acute illness and hence self-diagnosis cannot be expected (Sanders 2000, p.1102). Nor could it be expected when there is no accepted definition of what constitutes 'appropriate' (as identified in theme 1).

Communication is highlighted in a number of studies as having a huge impact on the patient. Perceptions of possible primary care patients impacts health professionals' communication techniques that they may use with these patients, often inadvertently (Guttman, Nelson & Zimmerman 2001). Hence patients may be spoken to with less compassion or more angst if they are deemed 'inappropriate' or not as important as other patients by the clinician. Guttman, Nelson & Zimmerman (2001) in their study demonstrated communication differences between clinicians for various patient presentations. The aim of the study was ascertain if what the authors anecdotally

thought to be true through their experience could be supported in a scholarly study. The authors believed that varied communication styles were used by health professionals according to the patient presentation. To determine whether this was actual rather than supposed, they performed a qualitative study where 26 semi structured interviews occurred with Emergency Department physicians, nurses and triage nurses. The questions focused on three areas: reasons for presentation of Emergency Department visits considered non-urgent; what the Emergency Department staff considered appropriate and inappropriate conditions for treatment in an Emergency Department; and whether staff explained to those nonurgent presentations what to do in the future for similar conditions.

The investigators used a grounded theory approach to code and analyse the data. This study demonstrated sound reliable methods to deem it a useful and trustworthy source. The authors observed in their study that when staff believe the Emergency Department is not appropriate for primary care treatment, they tend to speak to the patient with the aim of making them feel uncomfortable about presenting for such a 'trivial' matter. They also observed that when staff are of the opinion that patients are entitled to present to the Emergency Department for any form of treatment, the communication tends to be more open and makes the patient and/or parent feel at ease (Guttman, Nelson & Zimmerman 2001, p.169).

Another grounded theory research study was by Jacelon (2002), carried out in north-eastern United States in a rural/regional hospital. Jacelon (2002) performed admission, discharge and follow-up interviews with elderly patients over 75 years of age who had been admitted to the hospital for medical care. A family member of the patient and a registered nurse who had cared for the patient were also interviewed. Only 5 patients were interviewed due to data saturation. Jacelon (2002) found that communication can determine how comfortable the patient is with the treatment provided to them. She also found that nurses' perceptions of necessary information may be different to what a patient considers important or relevant. The study indicated that staff attitudes affected patients' dignity and autonomy. This study had a very narrow focus, being limited to the elderly over 75 years of age and so is restricted in its application to other populations and the Emergency Department environment. Although this age group is certainly increasing

in the Emergency Department, the inclusion of this group alone markedly limits the study. The study does however point out that communication and attitudes demonstrated can impact on the assessment undertaken on the patient. This could be extrapolated to an Emergency Department environment where communication and attitudes could ultimately affect whether patients will return for any future medical care.

Emergency Department personnel have been shown to be poor estimators of patient satisfaction (Boudreaux, Ary & Mandry 2000 p.110). This can significantly affect patient satisfaction. Boudreaux, Ary & Mandry (2000) performed a survey of Emergency Department employees to determine their predictions of patient satisfaction levels with care for established indicators. They then carried out phone interviews with patients to assess their satisfaction with care provided in the Emergency Department. Over the course of a month, 1556 patients were interviewed, giving a representative sample of Emergency Department patients. The findings from this study showed that Emergency Department staff were poor estimators of average patient satisfaction, consistently underestimating satisfaction levels (Boudreaux, Ary & Mandry 2000, p.110). From their results, Boudreaux, Ary & Mandry (2000) assert that negative perceptions of patients' satisfaction can lead to self-fulfilling behaviours. For example, if a staff member is defensive to the perceived malcontent in the Emergency Department, these actions may in turn be interpreted by the patient as disrespectful (Boudreaux, Ary & Mandry 2000, p.110). Boudreaux, Ary & Mandry (2000) found that staff may be jaded and hence have a low morale which will ultimately affect patients when they present to the Emergency Department, particularly if they are of a non-urgent nature.

They align this with other literature regarding patient satisfaction which, although old, discusses how negative feelings can correspond to subtle changes in the health professional's verbal and non-verbal behaviour (Eckman & Friesen 1969; Hall et al 1999; Lynn & McMillen 1999). This holds serious implications for the patient/health provider interaction and the effect on patient satisfaction (Boudreaux, Ary & Mandry 2000 p.110).

Bruce, Bowman & Brown (1998) agree with this assertion by Boudreaux & Mandry (2000). Through surveying patients presenting to an Emergency Department in the

United States, the authors found that staff tended to focus on technical competence and hence based patient satisfaction on this factor alone (Bruce, Bowman & Brown 1998 p.32; Lewis & Woodside 1992, p. 962). Patients responded to the survey indicating that psychosocial care was a priority for them. This study was performed in a rural setting and only had 28 respondents (23% of distribution number). Its reliability as a tool for comparison can be questioned considering the small participation numbers and the specific population. But when this principle is transferred to possible primary care patients who may require little technical competence for treatment, negative attitudes may lead to the lowering of service standards (Sanders 2000, p.1102), especially since attitudes are associated with beliefs and actions.

Health professionals' attitudes towards possible primary care patients in the Emergency Department impacts greatly on the patient as health care delivery is often affected (Gill, Reese & Diamond 1996). Gill, Reese & Diamond (1996) conducted a chart review of 266 Emergency Department patients who had presented to an urban teaching hospital in the United States. Using this convenience sample of medical notes, the researchers measured agreement of health professionals regarding urgency of presentations. The study showed that when a health professional considers the possible primary care patient to be 'time wasting' the patient was not given proper attention or a complete assessment (Gill, Reese & Diamond 1996).

Junior medical officers are cited as having more negative attitudes towards possible primary care presentations in the Emergency Department than emergency physicians (Dale & Williams 1999, pp.41-42). This can impact patients' poorly (O'Brien et al 1997, p.190). In a study by Dale & Williams (1999), approximately one third of the patients deemed as 'inappropriate' by emergency physicians or medical interns ultimately had a serious diagnosis when retrospective review occurred of medical notes. The problem with this result is the methods used to determine what constituted 'appropriate'. The authors acknowledge the lack in standardisation of terms for the study and the limited numbers of doctors involved in the study. Therefore this may not be applicable across health settings, particularly internationally. However, it is concerning that a large group of people may be

misdiagnosed or treated less thoroughly due to a negative attitude from a health professional.

Evidence indicates that prejudices do occur toward less urgent presentations (Sanders 2000). Dale & Williams (1999) conducted a study in southern England of 27 Emergency Departments. A questionnaire was sent to all 152 interns working in one of the Emergency Departments in this southern England region when they commenced employment. Further questionnaires were sent at one month and six months post commencing employment. A minimum of 61% return rate occurred with the three questionnaires. The questions covered career intention, numbers of possible primary care patients seen and the impact believed to occur on the Emergency Department. The results indicated that negative attitudes towards possible primary care patients become more entrenched over the six month time period, irrespective of the health professional being in a rural or metropolitan location. These negative attitudes are often portrayed through communication techniques with patients (Guttman, Nelson & Zimmerman 2001). As Guttman, Nelson & Zimmerman (2001) found in their study, health professionals can communicate in a way that makes patients feel uncomfortable (Guttman, Nelson & Zimmerman 2001, p.169). This can potentially affect patients' dignity and make them feel uneasy about coming to the Emergency Department. If possible primary care patients are given information in a negative tone or are provided with minimal information about what is going on, they may be left feeling discontent or even fearful about processes and systems in a foreign environment where they are not in control.

#### **Theme 4 Summary and Conclusion**

From the literature reviewed it is evident that the attitudes of health professionals can impact on treatment provided to patients with seemingly non-urgent conditions presenting to an Emergency Department. This can influence patients' decisions in the future if they have had a negative experience with health professionals. They may feel uncomfortable to present to the Emergency Department in the future and this could have serious implications in a patient who is untrained to recognise serious illness that requires emergency care.

## **Theme 5: Alternatives to providing care for possible primary care presentations**

Much of the Emergency Department overcrowding that has occurred over the last decade has been ascribed to possible primary care patients seeking treatment in Emergency Departments. The prime assumption is that a large proportion of patients presenting to Emergency Departments are nonurgent and could be managed elsewhere (Dale & Williams 1999; Gill, Reese & Diamond 1996; Guttman, Nelson & Zimmerman 2001). Therefore this theme will briefly explore what alternate services are available and whether these services are appropriate alternatives to an Emergency Department for possible primary care patients who choose to come for care and treatment.

The original function of the Casualty department in England was to provide medical care for those unable to afford a General Practitioner (Fry 1960; Blackwell 1962). It has therefore been questioned whether alternatives to the Emergency Department should even be considered. Some Emergency Physicians agree it is appropriate for the Emergency Department to treat possible primary care presentations and question whether an alternative care solution such as General Practitioner after hours clinics or urgent care centres are necessary. The reality of current Emergency Departments will now be addressed in relation to alternate service provision necessity.

In reality the majority of presentations to Australian Emergency Departments are triaged into category 3 or 4 (EDIS data 2004-2005; Ieraci et al 2000, p.154). Triage category 3 refers to patients classed as potentially life-threatening or who have situational urgency requiring assessment and treatment be commenced within 30 minutes of presentation, for example, a blood glucose level greater than 16mmol/L (Australasian College of Emergency Medicine (ACEM) 2005). Triage category 4 refers to patients presenting who are potentially serious or have significant severity or complexity or they have a situational urgency requiring them to have assessment and treatment commenced within 60 minutes of arrival, for example, a minor head injury with no loss of consciousness (ACEM 2005) (See Appendix 6 for Australasian Triage Scale descriptors).



Low acuity patients form a small, relatively constant component of the Emergency Department workload in Australia. Schoen & Osborn (2004) found in The Commonwealth Fund 2004 International Health Policy of Primary Care in Five Countries that 9% of all patient presentations to Australian Emergency Departments are suitable for care by a General Practitioner. This was determined through system reviews of General Practitioner and Emergency Department environments in conjunction with telephone interviews with patients.

Sprivulis (2003) concurs, claiming less than 12.5% of total presentations to Emergency Departments are low acuity and have very little impact on the Emergency Departments workload (Sprivulis 2003). This claim by Sprivulis has merit in relation to this study as it is an Australian study conducted in a mixed Emergency Department over six months. However, it is a retrospective analysis of the Emergency Department Information System and so does not take into account factors affecting the patient at the time of presentation to the Emergency Department. It is therefore purely retrospective health professional opinion, as opposed to Schoen & Osborn (2004) who base their figures on prospective interviews to gather accurate information.

Employing General Practitioners in the Emergency Department has been offered as an alternative for treatment of possible primary care patients coming to the Emergency Department. This strategy has been found to result in lowered rates of investigations, prescriptions and referrals both in Australia and internationally (Murphy 1999; Ieraci et al 2000). Ieraci et al (2000) state that general practice and emergency medicine have complementary yet distinct roles that cannot be compared due to the casemix and service provision. Ieraci et al (2000) claim that possible primary care patients presenting to Emergency Departments use minimal time and resources and that models such as General Practitioners working in Emergency Departments is not a viable solution to treatment of primary care patients. Bolton, Mira & Sprogis (2000) (also Australian) argue this point in a counter article written in response to Ieraci et al (2000). Bolton, Mira & Sprogis (2000) claim that there is good evidence for patients being managed by General Practitioners within Emergency Departments (Bolton, Mira & Sprogis 2000, p.133), however, they

provide no evidence to substantiate this claim, other than state numbers of low acuity patients that could possibly be treated by a General Practitioner.

There is very little penned that articulates the use of alternate services to Emergency Departments in Australia. Considering only 9% of Australians went to an Emergency Department (in 2004) for a condition that could have been treated by a regular doctor (if available) (Schoen & Osborn 2004), possible primary care patients cannot be considered a burden to our Emergency Departments (Ieraci et al 2000).

More provision of services by general practice is offered as a solution that may assist in reducing numbers of possible primary care presentations to the Emergency Department. This in combination with patient education is suggested as a viable option for lowering such presentations (Dale & Williams 1999, p.41).

With the number of alternative service models throughout Australia and internationally, a focus is emerging that the public should be encouraged to present to these alternative models of care for possible primary care reasons rather than the Emergency Department (Coleman, Irons & Nicholl 2001). Coleman, Irons & Nicholl (2001) found in their study that the increasing availability of alternative services for nonurgent health problems is likely to have little impact on the demand for Emergency Department services due to the patients perceived health needs. Information regarding General Practice and Medical Centre care is limited in Australian literature.

To ensure greater use of alternate services to Emergency Departments, it has been suggested in one paper (Derlot & Nishio 1990) that possible primary care presentations be refused care at an Emergency Department once assessed by specially trained triage nurses who would detail certain requirements about vital signs, history and other factors. Murphy (1998) summarises the study and comments about its use in an Emergency Department. Patients are assessed and then compared to a predetermined list. If the patient fits any pre-determined criteria, they would then be referred to an alternate care source. Alternatives to the Emergency Department include Medical Centres and General Practitioners (Murphy 1998). Murphy (1998) reports this as having major flaws, particularly the ethical and legal problems that surface from it. He comments that no classification system would be

sensitive enough to allow for the variety in patients illnesses or injuries to be safe and accurate enough to defer care to another source. Possible primary care patients presenting symptoms are considered too subjective to make 'blanket' statements about Emergency Departments or general practice (Lowe et al 1994).

In 2004, The Commonwealth Fund performed an International Health Policy Survey. It involved 1400 telephone interviews with adults (>18) living in Australia, Canada, New Zealand, and the United States. An expanded sample of 3061 adults was interviewed in the United Kingdom. The results of the survey demonstrated that in Australia 94% of people have regular General Practitioners they see for medical care. 50% of the respondents stated they could have same day access when required. However, when it came to after hours care, 54% said they have much difficulty accessing their regular doctor and so used the Emergency Department for treatment instead. Only 9% of respondents claimed they had been to the Emergency Department for something they deemed suitable for treatment by their local medical officer. The survey revealed that Australians have good opportunities to see General Practitioners and do not need to use the services of an Emergency Department except for out of hours (Schoen & Osborn 2004). It also demonstrated that few Australians use the Emergency Department for conditions that may be treated by a General Practitioner. This is significant for the research being reported as it identifies that patients coming to Emergency Departments are generally 'appropriate' and should hence be considered as such by staff.

The Commonwealth Fund International Health Policy Survey (2004) did find primary care shortfalls however. Despite there being more General Practitioners per capita in Australia than other countries, their distribution is unequal and inequitable, such that rural and remote areas are increasingly poorly served. This is supported by Australian authors Johnston & Wilkinson (2001).

Johnston & Wilkinson (2001) documented trends in the distribution of General Practitioners in Australia between 1986 and 1996 and compared the distribution with community needs. They state that the unequal and inequitable distribution is due to the Commonwealth Government being unable to directly regulate the spatial distribution of General Practitioners (who may locate their surgeries wherever they

please). There is no direct regulation of what hours surgeries should be open and the type of services they should provide. Various factors influence the location of General Practitioner services. Fundamentally, the location of General Practitioner services is affected by the geographical demand for services. A greater disparity is noted between rural and metropolitan areas, with there being a perceived oversupply in the latter (Johnston & Wilkinson 2001). This effect may have implication for the rural component of the research being reported. This will be discussed at a later point.

Highlighted through some of the literature reviewed was that General Practitioner services have 'failed' and so possible primary care presentations come to the Emergency Department for care instead (Dale & Williams 1999). Although some dissatisfaction with General Practitioner services does occur, it appears through Dale & Williams study (1999, p. 41) (previously outlined) that this is only the case for a small minority of Emergency Department attendances. This is an area that needs to be looked at independently to research whether General Practitioner services are meeting the general population's needs and requirements.

The use of practice nurses and nurse practitioners has been suggested as an alternative treatment source to the Emergency Department, particularly in the rural setting (Bryan 1995). This has merit; however the role of the practice nurse is to perform duties and services under a General Practitioner's authority. So unless there are sufficient General Practitioner services, the implementation of practice nurses is defunct. A nurse practitioner is an autonomous professional able to treat and discharge independently. This position could be very effective but is in the early stages and no evidence has been forthcoming to establish the impact these positions may have in treating possible primary care patients and relieving the perceived burden they place on Emergency Departments. By implementing nurse practitioners in Emergency Departments to complement the medical officers, this may be a very effective strategy for treating possible primary care patients whilst still enabling them to come to a centre they believe they need to be seen in for treatment and services.

## **Theme 5 Summary and Conclusion**

Internationally, primary care facilities have been substantially expanded in the last ten years to include not only General Practitioner services but also Medical Centres, minor injury units, urgent care centres and other such services. Alternatives to Emergency Department care in Australia, and internationally, are not clearly communicated in literature. There are alternate service models but the use of these services is not demonstrated well and hence no comparison of use with Emergency Departments can be made.

Since the literature reviewed was largely international, it described health systems not equivalent in Australia. Comparison for Australian purposes is very difficult when most of the articles were from the United Kingdom and the United States (which use a markedly different system and is driven financially).

Promoting possible primary care presentations to attend other health care sources should not be encouraged amongst health professionals'. In the literature reviewed, the safety of refusing care or encouraging patients to seek care elsewhere has not been demonstrated. Future research should be focusing on strategies to make Emergency Departments more appropriate for the patients presenting to them.

## **Overall Literature Review Summary and Conclusion**

There are many pieces of literature referring to possible primary care patients coming to an Emergency Department. There is consistent lack of definition of what this group of patients entails. This causes considerable confusion and disagreement between the literature. It was determined through reviewing the literature that there is no one accepted definition of what constitutes possible primary care patients or what constitutes an 'appropriate' presentation to an Emergency Department. This prompted the researcher to set a definition of what constituted primary care for her study so that consistency could be achieved with the emergency nurse respondents who completed the questionnaire. By having a clear definition of the primary care patient, meaningful comparison could be made between the respondents when analysis would occur.

Health professionals' perceptions of possible primary care patients are generally negative and invariably taken from a medical perspective. Hence the views of the patient or their reasons for presenting to an Emergency Department are not considered. So the health professional judges primary care from an informed clinical perspective which is invariably different to what patients consider possible primary care. Differences in opinions and reasons between presenting patients and health professionals are recorded not only in Emergency Department settings, but also in wards and general practice. Health professionals tend to focus on medical care, the legitimacy of the patients visit determined from a medical perspective and treatment required. Patients however, seem more concerned with other factors surrounding the condition and their social situation or environment at the time of the illness/injury.

From the literature reviewed it is evident that the attitudes of health professionals can impact on treatment provided to patients with seemingly non-urgent conditions presenting to an Emergency Department. This can influence patients' decisions in the future if they have had a negative experience with health professionals. They may feel uncomfortable to present to the Emergency Department in the future and this could have serious implications in a patient who is untrained to recognise serious illness that requires emergency care.

There are services outside the Emergency Department realm that could be utilised by possible primary care patients as an alternative to the Emergency Department. Despite these services, many patients continue to present for care to the Emergency Department as they perceive the care they require is best given in an Emergency Department. Since patients believe the Emergency Department is the best source of care for some conditions that health professionals may consider primary care, the Emergency Department needs to evaluate how effectively they treat this group of patients and whether the care provided is influenced by health professionals' perceptions of the presentation and attitudes towards non-urgent presentations.

## **Gaps present in the work**

The impact of possible primary care presentations on Emergency Departments is commonly spoken of; however the impact of health professionals' attitudes and perceptions of primary care patients is rarely reported in literature.

Through reviewing the literature, the research question was not answered adequately. The results and themes were not consistent between studies, identifying that health professionals' have a range of opinions and perceptions of the possible primary care presentation. There has been an inconsistent definition of possible primary care/non-urgent patients that needs to be resolved so that any valid and useful future comparisons can be made regarding this population. Until this is done, this group of presentations will remain controversial and unresolved. Health professionals' perceptions of this population will continue to be ambivalent as long as the definition of possible primary care/non-urgent presentations is unclear.

The literature reviewed was predominantly international. It was evident that different measures of what is appropriate are used internationally and can lead to discrepancy in generalising policy and practice. Comparison for Australian purposes is very difficult when most of the articles were from the United Kingdom and the United States (which uses a markedly different system and is driven financially). Hence a major gap in the literature was the lack of Australian studies. Until the parent study of the research being reported here was performed, very little research had been conducted on the primary care and Emergency Department interface. This bodes well for the research being reported as a large gap in health professionals' attitudes and perceptions of possible primary care patients has scarcely been studied or reported in recent years internationally and certainly not in Australia.

A major limitation with all of the articles reviewed is the large number of old references used to support their research. The information provided is therefore an historical perspective on these issues. This supports the need for further research in this area that can be supported by more recent literature.

Other limitations identified through this review are some articles with narrow foci. This occurred with respect to populations and study objectives. For example,



populations were particularly narrow in Jacelon (2002) where the study looked at elderly patients over the age of 75. Although this age group is certainly increasing in the Emergency Department, the inclusion of this group alone markedly limits a study. The research being reported here involves an adult population and so provides a broad approach to what emergency nurses think regarding possible primary care patients. The research also takes into account all emergency nurses working within a geographically contained area, so covers large ranges in age, positions, departments and experience.

This review was able to identify five themes that impact the Emergency Department in relation to possible primary care presentations and the health professionals' perceptions of such presentations – lack of definition between health professionals of what constitutes an 'inappropriate' or non-urgent patient; perceptions of primary care in the Emergency Department; variance between patient and health professionals' views of 'appropriate' presentation to an Emergency Department; the impact of health professionals' perceptions on patients; and alternatives to providing care for possible primary care presentations. These themes show a need for research to be performed to define 'appropriate' Emergency Department patients with a commonly understood definition, to confirm the variance in perceptions between patients and health professionals, and to determine how Australian health professionals impact patients with negative attitudes.

## **Purpose of the research study being reported in this thesis**

From the gaps identified in the literature, the research undertaken in this study will critically examine emergency nurses' beliefs towards possible primary care presentations, often named 'inappropriate' attendances, at Emergency Departments within the former Illawarra Area Health Service. These perceptions will be paralleled with 'inappropriate' patients' own perspectives on their attendance. The research evaluates whether different views between emergency nurses exist regarding the reasons possible primary care patients come to an Emergency Department rather than a General Practitioner or Medical Centre.

As outlined in Chapter 2 Background and now reiterated based on common and necessary elements in literature, the definition of a possible primary care patient to be used in this research study is:

A patient in triage categories 4 or 5 (Australasian Triage Scale), who is self-referred, who is presenting for a new episode of care (not a planned return visit), and who is unlikely to be admitted (in the triage nurses opinion).

From the review of the literature available, it is evident that there are gaps present that need further study and research. These particularly concern the perceptions of health professionals towards possible primary care patients coming to Emergency Departments. The research undertaken and reported here will contribute to providing information in this area. The literature review demonstrated that the majority of 'inappropriate' patients believe they are attending appropriately. So the purpose of this current research study is to determine what nursing staff consider the reasons these primary care patients come to an Emergency Department for treatment. This is clearly lacking in literature and so the researcher aims to show what these reasons are and whether they are aligned with what primary care patients themselves state are their reasons for presentation. The study design and methods used to obtain this data will be discussed in the next chapter – Chapter 4 Methodology.

## **Chapter 4 – Methodology**

### **Overview**

This chapter details the study design and methods used in the research study to ascertain emergency nurses' perceptions on the reasons possible primary care patients present for treatment to Emergency Departments. It gives details of the framework used to achieve the aims of the study. The chapter describes the participants and how they were recruited. It also outlines issues of rigour and validity along with ethical considerations associated with the study.

As described in the study background (chapter 2) the present study follows on from a larger study (known in the thesis as the Parent Study) and uses some of the Parent Study instruments, suitably modified.

The aim of this research project was to answer the question: What do emergency nurses consider the reasons possible primary care patients present to Emergency Departments? Then further analysis of the data was conducted to ascertain if there was a difference between the nurses based on demographic details. That is, do what nurses consider to be the reasons possible primary care patients present to Emergency Departments differ depending on the nurse's location, position, gender, age or experience?

This study also aimed to compare emergency nurses' beliefs about the reasons primary care patients present to an Emergency Department with the reasons patients themselves gave for their presentations, gleaned from the Parent Study.

For the purpose of the research, the patient population being examined were the possible primary care patients identified by the following criteria: any patient given a triage category 4 or 5 who self-presents, is not a planned return visit, and is unlikely to be admitted according to the Triage nurse assessing the patient (noted for reference purposes in Appendix 1). These criteria were selected initially for the Parent Study (as described in the background chapter 2 of this thesis) from which

this research stemmed. For the current research being reported, this patient population will be referred to as 'possible primary care patients' from this point on.

For my research, nursing staff working in the five Emergency Departments within the former Illawarra Area Health Service were given questionnaires to ascertain their perceptions of the reasons possible primary care patients present to an Emergency Department for care. Data were also collected about their department, sex, age, position held in the department, and length of time the nursing staff member had been working in an Emergency Department.

This data was analysed to determine any differences in perception based on these variables. The data from the nurses working in an Emergency Department also allowed comparison with results obtained through the larger Parent Study concerning primary care patients' reasons for presenting to an Emergency Department rather than a General Practitioner or Medical Centre.

## **Current Study**

The key link between the Parent Study and the study reported here is that the patients who responded to the questionnaires in the Parent Study were treated in the same emergency departments where the nurses who participated in this current study work. Although the questionnaires were not performed simultaneously by both patients and nursing staff, they were conducted within a similar time frame. The nursing staff undertaking the questionnaires were therefore working in the Emergency Departments at the time that the possible primary care patients sought treatment.

This is a significant element of the study being reported and can be seen to be a unique opportunity to compare and contrast patients' views with the views of nursing staff.

My research study will now be examined. I had been closely involved in the creation of the questionnaire for the Parent Study. Given the intent of my project, repeating the questions and using the same scales for measurement slightly modified for

patients, made sense. The questions in the questionnaire were such that they applied to both groups when the initial statement was altered. For patients the initial statement asked “Why did you come to the Emergency Department (ED) today rather than a General Practitioner (GP) or Medical Centre?” Nurses were asked “Why do you think patients come to the Emergency Department for primary care rather than to a General Practitioner or Medical Centre?”.

By choosing to remain consistent with the previous research questionnaire from the Parent Study, I was able to compare findings with the Parent Study. Although this was not the main focus of the current research, it was an additional comparative application that could be performed and provide potentially important data.

## **Research Questions**

The research questions were as follows:

1. What do nursing staff consider the reasons possible primary care patients present to Emergency Departments?
2. Is there a difference in responses between Emergency Nurses in relation to their:
  - a. Department
  - b. Sex
  - c. Age
  - d. Position held in the department
  - e. Length of time the nursing staff member has been working in an Emergency Department?

## **Setting**

The study was conducted within the former Illawarra Area Health Service. This area now forms the Southern Hospitals Network of South Eastern Sydney Illawarra Health Service (SESHS). The region extends from Helensburgh to Milton. The Illawarra area has a population of approximately 350,000 and is serviced by 8 public hospitals (5 with Emergency Departments) spread over a distance of more than 200 kilometres.

Due to the range of population densities and service levels of the Emergency Departments, the Illawarra region is well contained providing a mix of rural, regional and metropolitan settings. This is evidenced by its geographical self-containment (from the point of patient flow in and flow out of the region). The area covers a number of different population densities, which provides information about possible influencing factors affecting metropolitan and semi-rural population centres. Information pertaining to the size, presenting population and type of each Emergency Department is outlined in Chapter 2 –Background.

## **Population**

The population in the study included all nursing staff working in the five Emergency Departments of the former Illawarra Health Service. The criterion for inclusion in the study was the respondent being an Emergency Nurse, who is, employed by a former Illawarra Area Health Service Emergency Department and working solely in this environment. This included registered and enrolled nurses. It did not include casual staff members. The reason for this selection was to maintain a population who were not influenced by any other area of nursing, but consistently worked in an Emergency Department.

At the time of the research there were 127 emergency nurses working in the five Emergency Departments. All permanent and temporary contract nursing staff had the opportunity to participate in the study. By asking all staff to participate in the study, there was a broader range of responses that could help to elicit the beliefs of Emergency Nurses as to why possible primary care patients choose to present to an Emergency Department. The population was all inclusive since all nursing staff were invited to participate in the research. Of this number (127), 93 agreed to take part (73%). This figure shows a high response rate, implying a comprehensive representation of Emergency Department nursing staff beliefs towards possible primary care presentations that come to Emergency Departments. The high response rate may reflect emergency nurses concerns and/or interests in this area of possible primary care patients coming to the Emergency Departments the nurses'

work in. It may also reflect the fact that the staff knew me as the researcher and so were happy to participate.

Of the 34 people who didn't respond to the invitation to participate in this study, 33 were Registered Nurses (RN) and 1 was an Enrolled Nurse (EN). There were 89 RNs of varying levels and 4 ENs who participated in the study. There are few ENs who are employed to work in an Emergency Department. Those who do work in an Emergency Department are generally highly experienced.

## **Response Rates**

The numbers of responses of nurses by department were as follows:

- Milton Emergency Department – 9/9 (100%)
- Shoalhaven Emergency Department – 20/40 (50%)
- Bulli Emergency Department – 7/7 (100%)
- Shellharbour Emergency Department – 13/26 (50%) (1 EN did not respond, all other non-respondents were RNs)
- Wollongong Emergency Department – 43/65 (66%)

The respondents were asked to answer the questionnaire plus questions regarding their department, age, sex, clinical position held, level of experience and number of years working in an Emergency Department. These variables were included to assist in determining whether responses were different according to any of these demographic details. The variables were analysed individually and responses studied. Participants were grouped according to department, age, sex, clinical position, experience and years of service. The results from each group were considered in line with questionnaire responses to ascertain patterns and trends (See Appendix 10 for copy of nursing staff questionnaire).

## **Sampling**

*Who was sampled?*

Nursing staff working in Emergency Departments throughout the former Illawarra Health Service formed the sample population.

### *Criteria for inclusion in sample / how participants were approached*

No single department or group of nurses were targeted. All Emergency Departments and all nursing staff were invited to participate. It was important to include all nursing staff so that a broad sample was integrated into the study. By choosing all nursing staff to participate in the study, sampling bias was minimised.

Through this process then, technically, a self selecting sample occurred. All nursing staff were invited to participate in answering the questionnaire, although there was no compulsion to participate. So in practice this questionnaire invited all nursing staff to be involved, the numbers were  $N=127$  and  $n=93$ .

### *Where were they approached?*

Nursing staff were sent the questionnaire with an accompanying information letter to the Emergency Department they were working in. Contact was only made in this way, no personal or home contact occurred.

## **Data Collection**

To answer the question 'What do nursing staff consider the reasons possible primary care patients present to Emergency Departments and is there a difference between nurses based on department, position, experience, age or gender?', the researcher chose to use a fixed response questionnaire.

From the Parent Study the researcher had been involved in, preliminary findings suggested that possible primary care patients present to an Emergency Department for treatment as they believe their problem is too acute or too complex for their General Practitioner or a Medical Centre (Siminski et al 2005). It also suggested that patients tended to come to an Emergency Department as all services could be performed in one area rather than shuffle between places for varying services e.g. X-ray. As discussed in the overview of the Parent Study in Chapter 2, that questionnaire was based on an extensive and comprehensive literature review. So from the preliminary findings it was known why patients chose an Emergency Department for care rather than other services.



In my study, I wanted to determine nursing staff's views about reasons for possible primary care patients attending an Emergency Department rather than an alternative such as a General Practitioner or Medical Centre. To ascertain this information in an unbiased fashion required the questions for nursing staff be as similar as possible to the patient questionnaire from the Parent Study. Hence the same fixed response method was used for nursing staff in this current study as was used for patients in the Parent Study.

A series of 19 questions using the 3 point scale outlined above then followed (see Appendix 10). This number (19) was determined by the key findings in literature pertaining to reasons primary care patients choose an Emergency Department for service provision. The patient questionnaire had twenty questions; one of these questions was removed for the nursing staff questionnaire. This was question 20 (My family has traditionally used the ED for all our After Hours health care). The reason for this exclusion was because question 18 was similar and I did not believe that any significant information would be retrieved by keeping it in. Question 19 related to after hours services and I considered this would assist in ascertaining whether nurses thought after hours held any difference to this group of patients.

To gather untainted data, it was necessary that nursing staff had no prior knowledge of what patients believed according to the parent study undertaken earlier. The outcome of the Parent Study had not been analysed comprehensively and no results disseminated publicly. No results had not been discussed or shared with staff from any of the five Emergency Departments within the former Illawarra Health Service. This enabled the staff to be blind to any predisposition that may have occurred if the patient data had been made public or shared. I was aware of the trends from the patient questionnaire but did not disclose these to the nursing staff completing the questionnaires.

Based on this established knowledge, for the present study, a questionnaire was developed for distribution to nurses with the same items and the same three point scale used in the Parent Study. However questions on demographical data of nursing staff responding were added. Staff were asked 'Why do you think patients come to the Emergency Department for primary care rather than to a General

Practitioner or Medical Centre?'. This question was simple and in line with the overall research question. The questions were prefaced with a covering statement regarding what constituted a possible primary care patient:

'For the purpose of this survey, a Primary Care patient is defined as any patient that is given a triage category 4 or 5 who self-presents, is not a planned return visit, and is unlikely to be admitted' (according to the Triage nurse assessing the patient).

With a clear definition of what a possible primary care patient may be, the patients the questionnaire referred to could not be misinterpreted by staff completing the questionnaire.

The respondents were then asked to 'Please tick the box that, in your experience, best describes the importance of each of the following possible reasons that patients might use the ED for primary care needs'. These boxes were marked as one of the following: 'A very important reason'; 'A moderately important reason'; 'Not a reason'. The number of questions was kept to a minimum without compromising relevant issues so that staff would not feel the questionnaire to be an onerous task that would take a considerable amount of their time.

At the end of the questionnaire four double spaced lines were provided to give nursing staff the opportunity to make any comments on why, in their experience, possible primary care patients come to an Emergency Department instead of a General Practitioner or Medical Centre.

To summarise: to explore Emergency Nursing staff perceptions regarding why possible primary care patients present to an Emergency Department for treatment, Emergency Nurses were asked to complete a questionnaire which required quantitative responses and offered an option for qualitative responses. This questionnaire outlined 19 key reasons possible primary care patients who had presented to the previously studied Emergency Departments had identified as potential reasons for presentation to the Emergency Department rather than to their General Practitioner or a Medical Centre.

The questions the researcher asked in the questionnaire to the staff included some personal data – department currently working in, age, sex, position held, length of time in current Emergency Department, and also in previous Emergency Departments (if relevant). These assisted in measuring variances between different departments, experiences, ages, gender and positions held. The demographic data asked of the nursing staff is seen on the questionnaire given to the nurses (Appendix 10).

The questionnaire used for the parent research study was altered to suit nursing staff rather than patients. By rewording the questions for patients to questions for staff, the questionnaire remained nearly identical. Hence the question asked of patients ‘Why did you come to the Emergency Department today rather than a GP or Medical Centre?’ was changed to ‘Why do you think patients come to the Emergency Department for primary care rather than to a GP or Medical Centre?’.

### *Validity and reliability*

Issues of validity and reliability were dealt with in the following process. The patient questionnaire used in the larger parent research study previously conducted involved consultation with experts to ensure validity and reliability. As the researcher, I conferred with several senior research fellows at the Centre for Health Service Development (University of Wollongong) once the questionnaire was formatted. Each research fellow had significant research experience and credibility within the research arena with multiple publications to their names. This demonstrated content validity since the senior research fellows determined the questions within the questionnaire to be relevant, clear and unambiguous (Bowling 2002). The patient questionnaire in the Parent Study had been based on substantial comprehensive literature review, as outlined in the Parent Study overview. Content validity had been assured for the patient questionnaire used in the Parent Study.

Face validity was established when the questionnaire was piloted with ten emergency nursing staff who verbally fed back that the questionnaire was easy to understand and seemed relevant to them (Norwood 2000).

Given that the questionnaire was developed from literature and had content validity and face validity, it was deemed to be a useful tool for others to use and it was assumed that the content and face validity would remain with the nursing staff questionnaire since it was analogous.

The preliminary results of the Parent Study demonstrated that reliability was evident through the consistency of responses and trends that emerged. For the staff questionnaire, the results were consistent with the results of the pilot test, indicating stability since the same results were obtained at separate testing (Schneider et al 2007). Although responses were different for staff and patients, general understanding of what the questionnaire was asking was evident by high levels of respondents and correctly completed questionnaires. Thus, a consistency was evident which demonstrated the questionnaire was useful for its intention (Norwood 2000).

#### *Pilot testing and tool revision*

Once the questionnaire was completed and affirmed by the research fellows, a pilot questionnaire was given to ten nursing staff from Wollongong and Shoalhaven Emergency Departments. This was to ensure the questionnaire was clearly written and could be understood by staff, that it would enable information regarding nursing attitudes to be gathered, and that it could be completed within a reasonable time. The researcher set this time to ten minutes. The staff involved in the pilot test of the questionnaire verbally stated to the researcher that the questionnaire was easy to complete and took little time to carry out (up to ten minutes).

The researcher was satisfied from the pilot that the information required could be gathered from the questionnaire. Therefore no changes were made. From the pilot questionnaire, it was easy to discern a pattern in quantitative responses. The researcher therefore knew she could map commonalities in responses. The comments component enabled free response and additional information that respondents felt important to add. This qualitative data would be coded and organised into further patterns that may have been missed from the questions within the questionnaire.

The researcher was confident that the findings of the study would demonstrate external validity. The researcher was also confident following the pilot test of the questionnaire that the tool was reliable. The participants were as representative as possible – with all nursing staff having the opportunity to participate. The researcher considered that the results could be transferable since the respondents were from various levels of Emergency Department service provision and portrayed a spectrum of ages, sexes, experience and clinical roles. This questionnaire could potentially provide a means of measuring nursing staff beliefs consistently and repeatedly. It could therefore be considered for use by other researchers to study trends of Emergency Department nurses beliefs concerning reasons that possible primary care patient present to Emergency Departments.

### *Data Collection Process*

As part of the researcher's professional position she regularly visited the five Emergency Departments within the former Illawarra Health Service in the capacity of Clinical Nurse Consultant. The researcher met with the Nurse Unit Managers of the five Emergency Departments prior to engaging staff in the study. The purpose of these meetings was to outline to the managers the intention of the research study and gain permission to enter their departments and enrol their nursing staff in the study. The researcher wanted to gain support from the Nurse Unit Managers so that in the researcher's absence they might answer any questions pertaining to the study and encourage involvement of their staff.

Due to established working relationships with the managers, they were very happy to support the study and assist in any way with compliance of staff completing the questionnaire.

Once the questionnaire was finalised following pilot testing and ethics approval had been obtained, an introductory letter explaining the research being undertaken, the reasons behind the research and what was being asked of the person who would respond to the questionnaire, was created to give to staff members (see Appendix 11 for copy of letter). The researcher sent these letters via internal mail to all nursing staff working in the five Emergency Departments at the time of the study

commencing, personally addressing them to staff to make them feel an important part of the process. The researcher asked that the research be an agenda item on department meetings where the study was outlined to staff in attendance. It enabled staff to be clear about the possible primary care patient definition. This occurred several times in each department.

The researcher encountered different staff on duty when she they visited the Emergency Departments as part of their routine consultant visits. This gave opportunity to discuss the study individually with people who had questions. It provided opportunity to highlight the importance of clinician's involvement.

The letter and the questionnaire were sent via internal mail to staff members mid April 2004. The total number of questionnaires distributed was 127. The questionnaires were distributed en masse to ensure all nursing staff received them at the same time and there was no pressure or subjectivity in who received the questionnaire. Questionnaires were returned to the researcher via internal (or external) mail to the researcher's office. There were no additional practices or procedures enlisted by the researcher to distribute the questionnaires or to gain questionnaire return.

The following numbers were sent to each ED:

Bulli	7
Wollongong	55
Shellharbour	26
Shoalhaven	30
Milton	9

The number of responses from these EDs is listed below:

Bulli	7 (100%)
Wollongong	44 (80%)
Shellharbour	13 (50%)
Shoalhaven	20 (67%)
Milton	9 (100%)

It is possible to know the number of responses from the individual Emergency Departments as each participant was asked to identify their Emergency Department location. This was to enable comparison between rural, regional and metropolitan emergency department staff.

The number of Registered Nurses and Enrolled Nurses who completed the questionnaire are listed below:

Bulli	5 RNs + 2 ENs
Wollongong	44 RNs (no ENs employed)
Shellharbour	11 RNs + 2 ENs
Shoalhaven	20 RNs (no ENs employed)
Milton	9 RNs (no ENs employed specifically in the Emergency Department)

Only 1 EN approached did not complete the questionnaire. Considering there were only 5 ENs employed in any of the Emergency Departments, the data is skewed towards RNs. This is a normal skew for Emergency Departments in NSW as few departments employ ENs. In many rural departments, ENs may work in the Emergency Department given that staff shortages are prevalent in these areas; however, it is not a common practice in Emergency Departments.

The researcher allowed a three month turn around period for the return of the questionnaires. This amount of time was accompanied by visits to the five Emergency Departments. Nursing staff were often curious about the research and asked questions of the researcher. Therefore there were many opportunities to reinforce the aims of the research. The researcher discussed with many nursing staff the definition that constituted possible primary care patient presentations for the purpose of the study so all staff were very clear about the population within the study. This led to considerable dialogue regarding nursing perceptions traditionally, and possible future directions as a result of the study. Concepts and perceptions of staff were discussed in relation to the research and how their responses would be beneficial in determining whether change was needed within health services or the community. This dialogue could potentially skew the data. The researcher was alert

to this and generally fielded questions regarding the study as a whole. Discussion between peers was encouraged.

Consent was tacit by participants responding to, and returning, the questionnaire.

All questionnaires from participants willing to partake in the research were received by 15<sup>th</sup> July 2004. Towards the end of June 2004 the researcher reminded managers that the questionnaires needed to be returned within the next two weeks. Managers stated they would mention this in department meetings, so verbal and written communication was given to staff regarding the questionnaires.

## **Ethical Considerations**

To ensure the research process was transparent, all participants were given a written explanation of the study in the form of the accompanying letter distributed with the questionnaire (Appendix 11). Participants were assured that involvement was voluntary and that they had the right to refuse or withdraw at any time (up to the point of submitting the questionnaire). Participants were informed that this would not affect their position or any component of their work or personal life. All participants were also guaranteed verbally and in the introductory letter that confidentiality and anonymity was paramount and would be assured. Responses were anonymous. Privacy and anonymity of the respondents was protected by having all questionnaires sent via internal or external mail to the researcher with no personal contact. The questionnaires were stored in a locked cupboard for security and to ensure privacy was maintained.

In addition, minimal demographic data was requested on the questionnaire, making it difficult to identify respondents. The researcher always assured staff that there was no risk to them through contributing to the research and that they were able to withdraw if they chose to (up to the point of submitting the questionnaire).

Hence the ethical considerations taken by the researcher were as follows:

1. transparent process for all participants to allow an informed decision to participate



2. distribution and collection of questionnaires via mail to ensure anonymity of participants
3. storage of questionnaires private and locked for security of participants
4. voluntary involvement of participants, ensuring no repercussions if they refused to be a part of the study

Ethics approval was sought from the University of Wollongong Human Research Ethics Committee in association with the then Illawarra Area Health Service Human Research Ethics Committee. This was approved in January 2004 for the Parent Study. A letter outlining the additional nursing research study was sent along with the questionnaire as an amendment to the University of Wollongong Human Research Ethics Committee in March 2004. Approval time by the Committee was efficient and the research was able to be commenced in April 2004 (see Appendix 12).

## **Data Analysis**

The responses to the questionnaire were tabled according to frequency of replies. Where it was obvious that staff strongly agreed with a reason for presentation, these were grouped and tabled. Responses were then broken down into categories according to the variables established earlier.

Data was collated into qualitative and quantitative measures. The quantitative data was analysed using Microsoft databases – Excel and Access. The data was put into a spreadsheet and then correlation between predetermined variables was performed. Age, sex, position, Emergency Department and experience were analysed and recorded. The questionnaire was successful in so far that all returned questionnaires were complete. The participants understood the questionnaire from the parity of the responses. There was no confusion evident in any of the responses. Free text comments made supported the participants' responses to the statements within the questionnaire.

The qualitative free text comments data were collated, coded and placed in similar categories. Since so many free text comments were similar, this process allowed the researcher to identify patterns within the comments.

The forced choice data was analysed quantitatively using frequencies. To ensure adequate discrimination of the data occurred, a response rate of over 66% of respondents saying an item was a 'very important' reason was judged by the researcher as 'significant'. This number seemed reasonable when there were three possible responses for each question on the questionnaire, thereby loosely representing approximately 33% for each possible response.

The results were analysed and from the information gathered, the researcher was able to categorise responses according to age, sex, position, experience and department. This delineation had important conclusions regarding certain variables, which will be discussed in the Findings chapter.

## **Summary and Conclusion**

The subject area of the questionnaire given to nursing staff working in the five Emergency Departments within the Illawarra region was to ascertain Emergency Nurses responses and perceptions towards possible primary care patients presenting to an Emergency Department.

The descriptive methodology used to perform this study was transparent, reliable and possibly reproducible. Being associated with a large parent study assured reliability and validity occurred in the current study.

Following this chapter the findings obtained through this study will be presented. These will show nursing perceptions through responses to the questionnaire and any variations that may have occurred relative to demographic data.

## Chapter 5 – Findings

### Introduction

This chapter will highlight the key themes and significant findings that emerged from the data. It will show that although a number of demographic variables were examined, that there was one overwhelming theme that emerged irrespective of who the participants were or where they worked.

The questionnaire given to nursing staff to determine their perceptions of why possible primary care patients attended an Emergency Department was distributed in April 2004 to 127 nursing staff (N=127). Ninety three (93) nurses responded (n=93), a response rate of 73%. What constitutes a good response rate is not clear cut, but the higher the response rate, the better (Australian Bureau of Statistics 2007). The higher the response rate, the more likely the results are representative of the population, provided the sampling is appropriate in the first place (and that people who don't respond are roughly the same in their opinions as the people who do respond). All emergency nursing staff working within the boundary of the former Illawarra Health Service were offered inclusion in the study, and the level of response in this questionnaire is regarded as a good response rate with the results being representative of the population (Data Analysis Australia 2007). This provides some confidence in the results.

This chapter reports on the findings of the study in six parts. The findings considered the following:

**Part 1:** overall data of nurses' responses to the questionnaire

**Part 2:** data comparing responses from nurses working in different departments within the health service (metropolitan, regional or rural)

**Part 3:** data comparing responses from nurses holding different positions within the Emergency Department

**Part 4:** data comparing responses from nurses with different levels of experience in the Emergency Department

**Part 5:** data comparing responses from nurses of different ages and gender

**Part 6:** data from free comments by emergency nurses

**Part 7:** data comparing emergency nurses responses with primary care patient responses

The data for these sections will now be outlined. All data will be explored by way of the 'top 5' reasons for each group of demographical data presented. To ensure adequate discrimination of the data occurred, a response rate of over 66% of respondents saying an item was a 'very important' reason was judged by the researcher as 'significant'. This number seemed reasonable when there were three possible responses for each question on the questionnaire, thereby loosely representing approximately 33% for each possible response. The Parent Study did not use a percentage of responses to indicate any level of significance, but rather used a ranking system to ascertain the highest levels of responses to the questions on the questionnaire. This was something the researcher felt was lacking and needed to be more specific for the purposes of her research.

## Part 1: Overall data of nurses' responses to the questionnaire

Overall, the nurses' responses were very similar in terms of what they considered the principal reasons that possible primary care patients choose to come to an Emergency Department rather than a General Practitioner or Medical Centre for their medical care. The 'top 5' reasons that emerged generally when all nursing data were analysed are below in Table 1.

Table 1 presents the 'top 5' reasons all respondents rated as being a 'very important' reason primary care patients seek care in an Emergency Department. Those rankings highlighted in red relate to those cases where responses exceeded the 66% 'very important' level.

- 
- **Table 2: The most highly ranked 'very important' reasons for all questions within the questionnaire for all nurses' responses**

	Nursing responses (n=93)
▪ <b>Q.12 No charge to see a doctor at the ED</b>	<b>1</b> <b>(77%)</b>
▪ <b>Q.13 No charge for X-rays or medicine at the ED</b>	<b>1</b> <b>(77%)</b>
▪ <b>Q.8 Not able to get in as a patient at a GP surgery as the books are closed</b>	3 (60%)
▪ <b>Q.7 See doctor and have all tests and x-rays in same place</b>	4 (54%)
▪ <b>Q.9 Not happy with wait to get appointment with GP</b>	5 (46%)

These results indicate a high level of agreement generally amongst nurses working in Emergency Departments within the former Illawarra Health Service in regards to why they think possible primary care patients come to an Emergency Department for service and treatment, that is, the assumption that possible primary care patients come to an Emergency Department for free service. To develop the analysis further, this data was explored in terms of demographics. The focus of the research study was to explore the reasons emergency nurses think people attend the Emergency Department. Another key area of exploration was to determine if any differences in

opinions regarding possible primary care patients attending Emergency Departments by nursing staff occurred when various demographical details were taken into consideration.

The results were analysed using Excel and JMP software to determine the highest rankings of responses by nurses within the specified demographic groups. A chi squared test (along with degrees of freedom) to ascertain the  $p$  value to determine statistical significance of the results due to effect rather than chance was performed. These tests enabled a comparison of the importance of responses by nurses to be explored. There was also opportunity to compare patients' reasons with those of the nurses working in the same Emergency Departments. This was able to be performed since the patients responses were ranked according to the percentage of responses for a question. Hence percentage of responses by patients to questions could be compared with the percentage of nurses' responses to the same questions.

The results from the questionnaires will now be explored in terms of which Emergency Department the nurse was working in, the position held by the nurse, the years of experience working in an Emergency Department, the nurses' age and gender.

## **Part 2: Data comparing responses from nurses working in different departments (classified as metropolitan, regional or rural) within the health service**

The second component to be analysed was the level of Emergency Department that the nurses worked in, that is, metropolitan, regional or rural. The analysis sought to determine whether working in different departments had any influence on the nursing staff's responses as to why they thought possible primary care patients attended an Emergency Department for treatment. The various Emergency Departments within the former Illawarra Health Service Emergency Departments are listed below in Table 2.

▪ **Table 3: Emergency Departments within the former Illawarra Health Service**

<b>Emergency Department</b>	<b>Level</b>
Bulli	Level 2 – regional
Wollongong	Level 5/6 – metropolitan
Shellharbour	Level 3 – regional
Shoalhaven	Level 4 – rural
Milton	Level 2 – rural

For the purpose of analysis, like departments were grouped according to level and purpose as outlined by NSW Health (NSW Health 2002). Thus, Wollongong was the metropolitan site; Bulli and Shellharbour were the regional sites; and Shoalhaven and Milton were the rural sites, within this study. These classifications are outlined in Appendix 7. This grouping also ensured sufficient numbers for reliable analysis when the Chi Square test was applied to the data later in this section.

## **Similarities and differences between responses of nursing staff from metropolitan, regional and rural Emergency Departments**

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### **Ranking of responses**

- A means of demonstrating similarities and differences between metropolitan, regional and rural sites was to rank the 'very important' reasons that nurses in the various Emergency Departments believed possible primary care patients seek Emergency Department care. The following table, Table 3, presents these 'very important' reasons under the headings of: metropolitan, regional and rural Emergency Department nurses.

Initially the rankings were to be in the form of a 'top 5' most highly ranked reasons for each sector. This was not possible when the top 5 for each sector were compared as they (reasonably) differed slightly. To deal with this and to add further discrimination of the data, a response rate of over 66% of respondents saying an item was a 'very important' reason was judged by the researcher as 'significant'. Table 3 therefore presents the data related to those items where at least 66% of respondents rated it as being a 'very important' reason primary care patients seek care in an Emergency Department. Those rankings highlighted in red relate to those cases where responses exceeded the 66% 'very important' level.



▪ **Table 4: The most highly ranked ‘very important’ reasons for all questions within the questionnaire, across Metropolitan, Regional and Rural sites**

	<b>Metropolitan (n=44)</b>	<b>Regional (n=20)</b>	<b>Rural (n=28)</b>
▪ <b>Q.12 No charge to see a doctor at the ED</b>	<b>2</b> (70%)	<b>1</b> (85%)	<b>2</b> (83%)
▪ <b>Q.13 No charge for X-rays or medicine at the ED</b>	<b>1</b> (73%)	<b>2</b> (75%)	<b>1</b> (86%)
▪ <b>Q.8 Not able to get in as a patient at a GP surgery as the books are closed</b>	4 (52%)	4 (45%)	<b>2</b> (83%)
▪ <b>Q.7 See doctor and have all tests and x-rays in same place</b>	<b>3</b> (66%)	<b>3</b> (65%)	8 (28%)
▪ <b>Q.9 Not happy with wait to get appointment with GP</b>	6 (32%)	5 (35%)	<b>4</b> (76%)
▪ <b>Q.10 Don’t like making appointments, attend ED when want to</b>	6 (32%)	7 (30%)	5 (41%)
▪ <b>Q.1 Condition too urgent to wait to see GP</b>	5 (45%)	5 (35%)	7 (31%)

Perhaps the main thing this table demonstrates is that there was a high level of consistency amongst nursing staff regarding why they felt primary care patients attend Emergency Departments, irrespective of which Emergency Department they worked in. It does so because the top 5 responses for each sector were confined to only 7 items.

For two particular items - Questions 12 and 13, this consistency was remarkable by virtue of their being rated the top 2 reasons across all sites **and** at levels where at least 66% of respondents at each site had labelled them as ‘very important’. These items related to there being no charge for doctor or for services in Emergency Departments. Table 3 therefore suggests that these emergency nurses believed

possible primary care patients come to an Emergency Department because they want free service and adjuncts to treatment such as x-rays and medication. This is evident from the minimum response rate of 70% of nursing staff indicating these two questions to be 'very important' reasons they thought possible primary care patients attend an Emergency Department rather than a General Practitioner or Medical Centre. So, irrespective of whether the nurse worked in a metropolitan, regional or rural Emergency Department, this data suggests that they considered possible primary care patients come to an Emergency Department for care because it is free. However, Table 4 does show that differences did occur.

### *General Practitioner access*

Differences between responses by nurses working in different Emergency Departments are particularly seen in the questions concerning patients being unable to get into their General Practitioner due to books being closed. The rural departments ranked this highly (83% of responses), with these staff therefore clearly indicating its importance as equal with the free medical service an Emergency Department offers (question 12). However, the nursing staff from the metropolitan and regional departments did not consider this to be as important a reason for possible primary care patient presentation with only 52% of metropolitan nursing staff and 45% of regional nursing staff ranking it as 'very important'.

From looking at this data it is therefore possible that metropolitan and regional emergency nurses do not deem access to General Practitioner services for possible primary care patients to be a problem and hence a reason for those patients to come to the Emergency Department. This is indicated by only 32% and 52% of metropolitan and regional nursing responses noting questions 8 (I am not able to get in as a patient at a General Practitioner surgery as the books are closed) and 9 (I am not happy with the time I have to wait to get an appointment with a General Practitioner) as 'very important' reasons for possible primary care patients coming to the Emergency Department. However, rural nurses' responses seem to identify that they may consider these to be key reasons why possible primary care patients come to the Emergency Department for service (76% and 83% of nursing responses marked questions 8 and 9 as 'very important' respectively), suggesting that access to General Practitioner services is more difficult in rural settings.

### *Access to central service provision*

Another key difference between the metropolitan and regional Emergency Departments and the rural Emergency Departments was evident in question 7 (able to see a doctor and have all tests and x-rays in the same place). This ranked third for both metropolitan and regional departments with 66% and 65% respectively of staff indicating it to be a 'very important' reason they considered possible primary care patients come to an Emergency Department for care. The rural departments ranked this eighth with only 28% of staff considering it may be a 'very important' reason for patients in their decision to attend an Emergency Department rather than a General Practitioner or Medical Centre. This data implies that rural emergency nurses do not think that central service provision is considered by possible primary care patients when making a decision to attend an Emergency Department rather than a General Practitioner or Medical Centre.

These trends suggested differences and so chi square tests were performed to test for significance of difference. The results of the Chi Square test are outlined later in this section.

### **Comparison of metropolitan, regional and rural emergency nurses 'not a reason' responses**

Having looked at emergency nursing staff responses regarding various levels of importance, the following figure, Figure 1, considers the responses those nurses from different departments deemed 'not a reason' for possible primary care patients choosing to present to an Emergency Department. These are below in Figure 1.

Figure 1 is represented as a bar graph where nursing responses from the metropolitan department form the first column, nursing responses from the regional departments the second column, and rural nursing responses the third column. Each grouping is based on the 'not a reason' responses to the questionnaire. This is number three based on the scale of 1 being 'very important', 2 representing 'moderately important' and 3 representing 'not a reason'.

▪ **Figure 1: Percentage of ‘not a reason’ responses for all questions within the questionnaire across Metropolitan, Regional and Rural Departments**

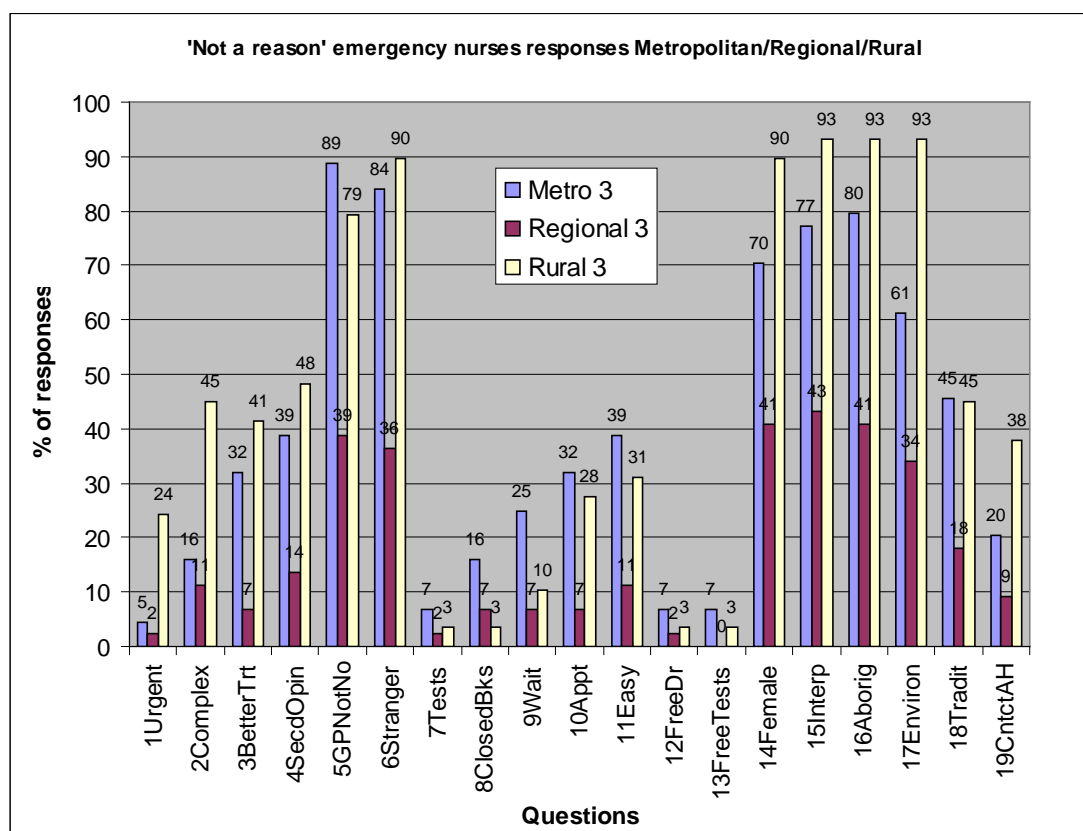


Figure 1 shows a fair degree of consensus amongst all nursing staff in what they considered to be ‘not a reason’ that possible primary care patients choose to present to an Emergency Department for care, irrespective of whether they worked in a metropolitan, regional or rural Emergency Department. The agreement occurred in three questions relating to anonymity (questions 5, 6 and 17) – question 5 (did not want my General Practitioner to know about my health problem); question 6 (prefer to talk to a doctor I don’t know); and question 17 (prefer the Emergency Department environment to a General Practitioner surgery or Medical Centre). The agreement also occurred in three questions describing additional services the patient may want that are not available in the general practice arena (questions 14, 15 and 16) – question 14 (wanted to see a female doctor and I thought I could at the Emergency Department), question 15 (wanted to see a doctor or interpreter who speaks my language) and question 16 (wanted to be able to see Aboriginal health staff if I needed to). This series of ‘not a reason’ responses indicate a great level of consistency across metropolitan, regional and rural departments regarding why these nurses **didn’t** think possible primary care patients attend an Emergency

Department. Nurses working in an Emergency Department whether it be metropolitan, regional or rural did not see these questions (14, 15 and 16) as reasons for possible primary care patients attending an Emergency Department.

However, some variation was also evident in the 'not a reason' responses. Nursing staff from the rural and metropolitan Emergency Departments had a minimum response rate of 61% for the questions pertaining to anonymity and additional services. However nursing staff from the regional Emergency Departments response rates were consistently lower, averaging approximately 40% agreement for these questions. This response rate was considerably higher than other questions, maintaining notable differences to all other questions. It is unclear why this difference in response rates by the regional nursing staff occurred. Why this group didn't respond as highly is unknown when they have the same population presenting to their Emergency Departments. It could be feasible that emergency nurses believe that people living in regional areas are more familiar with their General Practitioner and therefore they see the Emergency Department as more impersonal. However, it would be natural that this type of relationship would be more common in rural settings than regional and the rural nursing staff rated the questions concerning anonymity considerably higher than their regional colleagues. This is a peculiar aspect of the results that seems to bear no reason for it.

It is interesting also, that the additional reasons pertaining to interpreter services and Aboriginal health staff were highlighted as 'not a reason' by nursing staff from all the departments. It is known that the metropolitan and regional Emergency Departments service a highly multicultural area, and that the rural area has a higher density Aboriginal population than the rest of the Illawarra region. It is interesting to conjecture about these results and why the nursing staff did not regard either of these services as important for the possible primary care patients that chose to use the Emergency Department for service provision in these areas.

### **'Very important' and 'moderately important' combined responses by nurses**

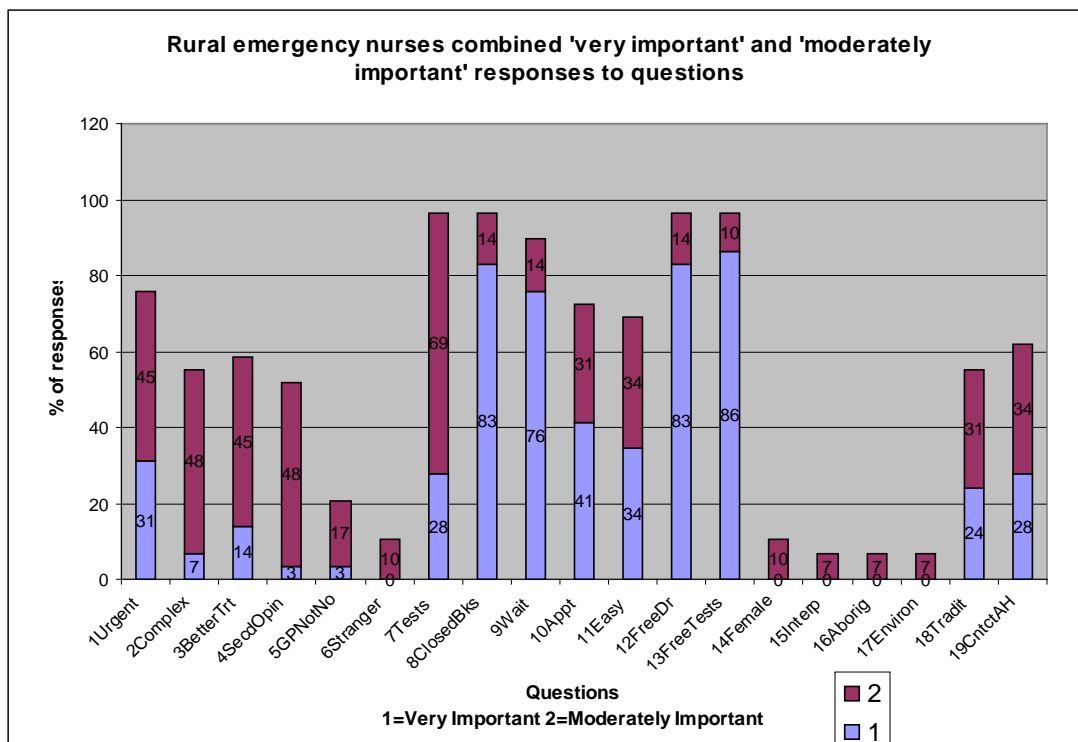
Table 4 identified the 'very important' reasons recorded by nursing staff from metropolitan, regional and rural Emergency Departments. The researcher wanted to

determine whether the importance of these reasons remained consistent when 'moderately important' reasons were pooled with 'very important' reasons (indicating some form of importance) for the sectors, that is, the metropolitan, regional and rural Emergency Departments. The results of these combined 'very important' and 'moderately important' responses are presented in Figures 2, 3 and 4.

### **Emergency nurses from rural departments combined 'very important' and 'moderately important' responses**

To begin with, the combined 'moderately important' and 'very important' responses to the questionnaire by nurses from the rural Emergency Departments were examined. Figure 2 presents data in the form of a stacked column graph where the contribution of each level of importance ('very important' and 'moderately important') is compared to the total across both categories. The lilac shading represents the 'very important' responses while the purple shading represents the 'moderately important' responses by nurses in the rural Emergency Departments.

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- **Figure 2: Rural emergency nurses combined 'very important' and 'moderately important' responses to questions on the questionnaire**



As previously identified, a response rate of over 66% of respondents indicating an item held some level of importance was judged by the researcher as 'significant'. Applying this parameter, Figure 2 demonstrates which questions rural emergency nurses rated as having some level of importance in what they consider to be reasons that possible primary care patients choose to attend an Emergency Department. When rural emergency nurses 'moderately important' reasons were added to the 'very important' reasons they thought possible primary care patients may attend an Emergency Department, it can be seen that a wider scope of reasons emerge than when 'very important' reasons alone were examined.

Figure 2 also shows that the rural emergency nurses were consistent in their responses because when 'moderately important' answers were combined with 'very important' responses, only four additional questions were considered important (when a response rate of 66% is taken as meaningful).

Previously in Table 4 it was identified that rural emergency nurses considered the most important reasons possible primary care patients presented to the Emergency Department were a lack of access to General Practitioner services and the free service provision the Emergency Department offers (with questions 8, 9, 12 and 13 having greater than 66% of responses being 'very important'). Figure 2 above makes

it is clear that in addition to those reasons, rural nurses consider other important reasons that possible primary care patients come to an Emergency Department include reasons of perceived urgency by the patient (question 1, 76% of combined responses), ease for the patient in service provision (question 7, 97% of combined responses), and other questions pertaining to access to General Practitioner services (questions 10 and 11, 72% and 68% of combined responses).

These reasons seem to indicate that rural emergency nurses had clear reasons they regarded possible primary care patients choosing an Emergency Department for treatment rather than a General Practitioner or Medical Centre. This is apparent since a relatively small number of additional responses were rated by more than 66% of respondents, and half of the additional responses were related to General Practitioner access which had rated highly when only 'very important' reasons were examined.

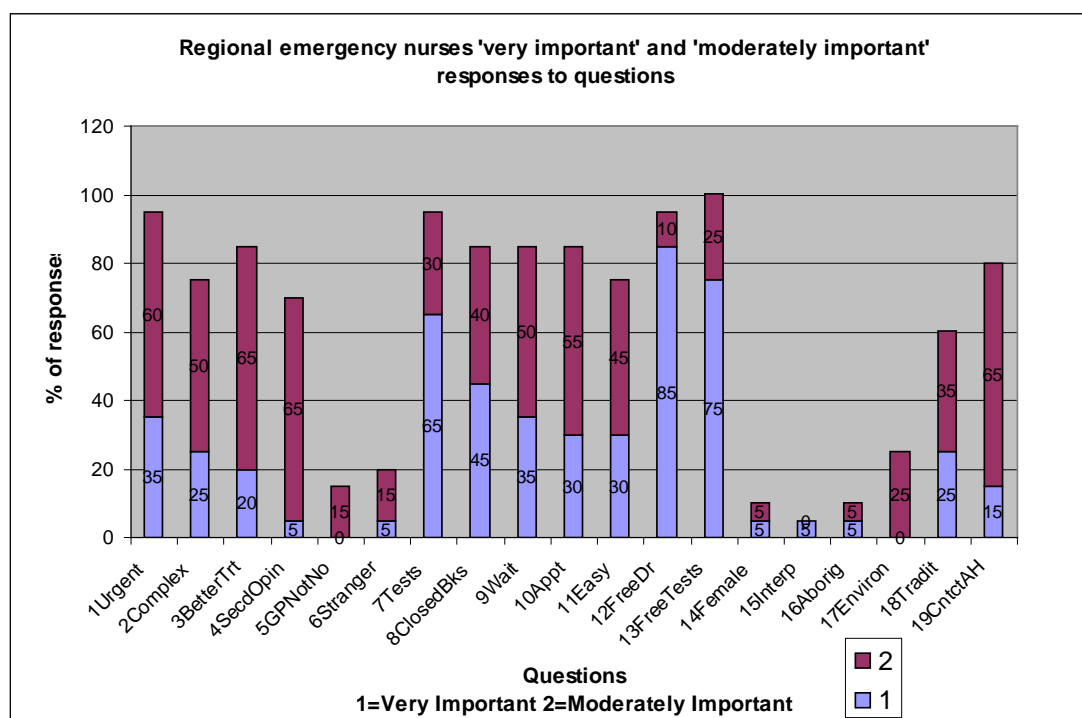
Since such high percentages of responses were obtained in relation to free and easy service provision, General Practitioner access and availability, and the patient's perception of the urgency of their condition, this would indicate that rural emergency nurses have definite views of why a possible primary care patient will choose the Emergency Department for care. It would seem that rural emergency nurses believe that possible primary care patients consider their condition urgent, are unable to access a General Practitioner within an appropriate time frame and want free service(s), hence they come to the Emergency Department.

### **Regional combined 'very important' and 'moderately important' responses**

Figure 3 below demonstrates in a stacked column graph the combined 'very important' and 'moderately important' responses to the questionnaire by nursing staff at the regional Emergency Departments. It shows each level of importance ('very important' and 'moderately important') compared to the total across both categories. The lilac shading represents the 'very important' responses while the purple shading represents the 'moderately important' responses by nurses in the regional Emergency Departments.



▪ **Figure 3: Regional nurses combined 'very important' and 'moderately important' responses to questions on the questionnaire**



When 'very important' and 'moderately important' reasons were combined and examined for nursing staff working in regional Emergency Departments, strong agreement occurred in a number of questions, broadening the range of responses fairly significantly from cost (questions 12 and 13) and the ability to have consultation and treatment in one place (question 7) which was evident from the 'very important' responses seen earlier (Table 2) to include a number of other reasons.

By once again taking a figure of 66% as meaningful, the following questions scored well above this percentage, showing that regional emergency nurses held a number of reasons as important to some degree when they considered why possible primary care patients came to an Emergency Department for care. The additional questions were related to perceived patient urgency or complexity (questions 1 and 2, 95% and 75% of combined responses), better treatment in the Emergency Department (question 3, 85% of combined responses), wanting a second opinion (question 4, 70% of combined responses), inability to get into General Practitioner services (questions 8 and 9, 85% each question for combined responses), not wanting to make an appointment with a General Practitioner (question 10, 85% of combined responses), ease of access to the Emergency Department (question 11, 75% of

combined responses) and not knowing how to access after hours General Practitioner services (question 19, 80% of combined responses).

By combining 'very important' and 'moderately important' responses by regional nursing staff, it becomes clear that no distinct reasons are highlighted as important anymore since twelve out of nineteen potential reasons that possible primary care patients may attend an Emergency Department for treatment were deemed to hold importance of some degree to this group of regional emergency nurses. This was indicated by more than 66% of nursing staff deeming some level of importance to those twelve questions.

Probably the only conceptual link in the questions rated with some value of importance was those questions relating to access to General Practitioner services. It can be assumed that the regional emergency nurses believe this is a problem for possible primary care patients as all the questions relating to General Practitioner service delivery were rated well above 66%, as were questions describing ease of access to Emergency Departments.

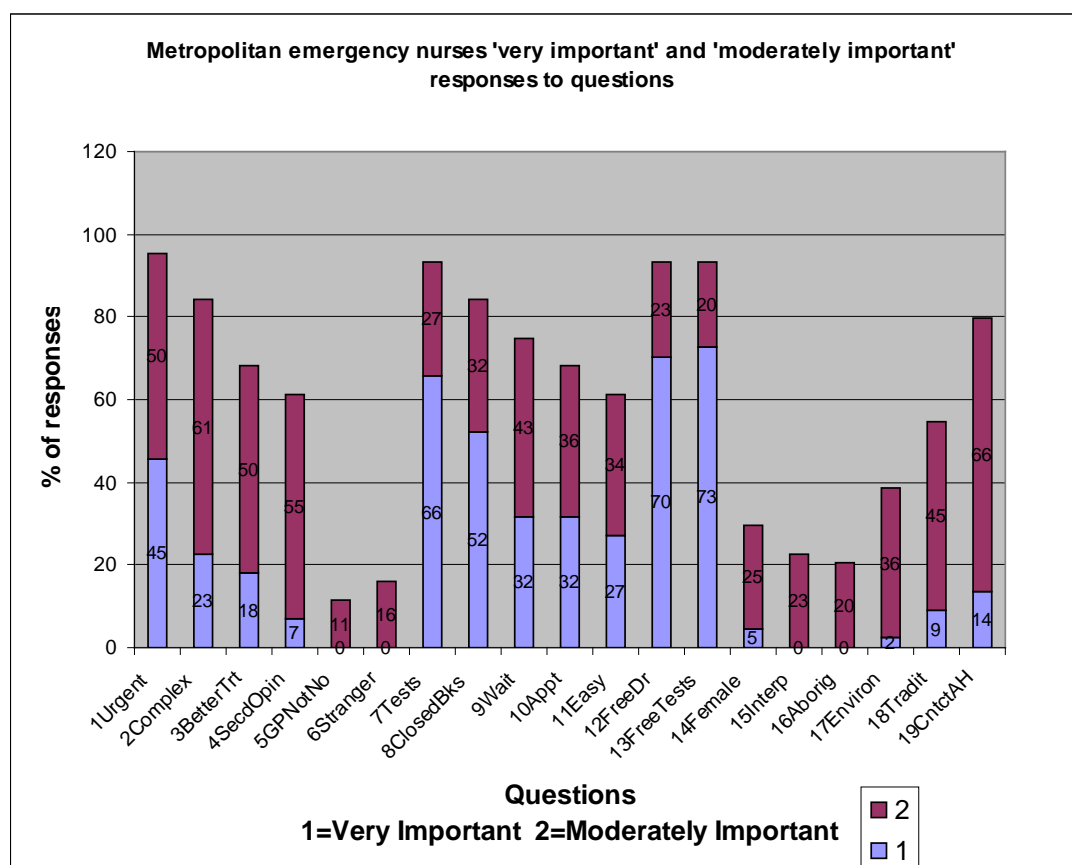
Although there tended to be a general rating of importance for numerous potential reasons for presentation, the regional nurses responses seem to indicate they believe possible primary care patients choose an Emergency Department for care due to acuity. This can be seen through the strong agreement in questions relating to patients perception of illness and the role of the Emergency Department. For example, question 3 relating to receiving better treatment in an Emergency Department, and question 4 concerning the need for a second opinion from Emergency Department staff.

Generally, however, there appears to be a lack of a common theme emerging from the regional nurses responses, suggesting that perhaps they may be clear about why they think possible primary care patients come to an Emergency Department individually, but lack a group consensus. The agreement occurs only in relation to the delivery of free service(s) and the convenience of central services, both of which scored so highly in the 'very important' responses.

### **Metropolitan combined 'very important' and 'moderately important' responses**

Figure 4 below demonstrates the combined 'very important' and 'moderately important' responses by nursing staff to the questionnaire at the metropolitan Emergency Department. In the stacked column graph below the contribution of each level of importance ('very important' and 'moderately important') is compared to the total across both categories. The lilac shading represents the 'very important' responses while the purple shading represents the 'moderately important' responses by nurses in the metropolitan Emergency Department.

▪ **Figure 4: Metropolitan nurses combined ‘very important’ and ‘moderately important’ responses to questions on the questionnaire**



Maintaining that 66% of responses to a question is meaningful, this figure shows that metropolitan emergency nurses' believe a number of other reasons have some level of importance to possible primary care patients when making their choice to present to an Emergency Department rather than a General Practitioner or Medical Centre. As indicated in Table 4, three key reasons were considered 'very important' by metropolitan emergency nurses as to why possible primary care patients come to an Emergency Department rather than a General Practitioner or Medical Centre – these were concerning free service(s) (questions 7, 12 and 13). By adding 'moderately important' responses to the mix it is shown that these nurses deem an additional seven reasons to hold some level of importance, when 66% of responses is considered meaningful.

The additional questions incorporated perceived patient urgency or complexity (questions 1 and 2, 95% and 83% of combined responses), along with better

treatment in the Emergency Department (question 3, 68% of combined responses), inability to get into General Practitioner services (questions 8 and 9, 84% and 75% for combined responses), not wanting to make an appointment with a General Practitioner (question 10, 68% of combined responses), and not knowing how to access after hours General Practitioner services (question 19, 80% of combined responses).

These perceptions, particularly of complexity and better treatment (questions 2 and 3), are important for the metropolitan Emergency Department as it was the tertiary referral centre for the former Illawarra Health Service, and continues to hold this function now in the Southern Hospital Network of South Eastern Sydney & Illawarra Area Health Service. Hence these perceptions could be considered valid by staff.

### **Comparison of Metropolitan, Regional and Rural emergency nurses' responses of combined 'very important' and 'moderately important' responses**

When comparing the combined 'very important' and 'moderately important' responses between the metropolitan, regional and rural Emergency Department nursing staff, there are patterns that emerge. The rural emergency nurses maintained a fairly strong focus on key reasons they thought possible primary care patients attended an Emergency Department, with only four additional questions standing out as generally important when 'moderately important' were added to 'very important' responses. These were question 1 (perceived urgency by the patient), question 7 (central service provision), and questions 10 and 11 (convenience). These additional questions matched the metropolitan and regional emergency nurses' responses, again demonstrating a general consistency in responses across metropolitan, regional rural nursing staff. So it is clear that emergency nurses, aside from free service delivery, consider that possible primary care patients choose to come to an Emergency Department rather than a General Practitioner or Medical Centre because all services are central, access is easy, and patients consider their condition to be urgent. It is unknown if this perceived sense of urgency by patients is shared by emergency nurses.

The regional and metropolitan Emergency Department nurses had consensus on their top three reasons that possible primary care patients attend an Emergency Department (questions 7, 12 and 13). When 'moderately important' responses were added to 'very important' responses, seven questions were seen as having some level of importance for possible primary care patients attending an Emergency Department rather than a General Practitioner or Medical Centre. Both these groups of emergency nurses showed agreement in considering that patients came to the Emergency Department due to clinical urgency or complexity (questions 1 and 2), better provision of treatment (question 3), inability to access General Practitioner services (questions 8 and 9), ease for the patient (question 10), and lack of knowledge in accessing after hours General Practitioner services (question 19).

Regional emergency nurses had an additional two questions they perceived as holding value to the possible primary care patient in making their decision to attend the Emergency Department – those being concerned with seeking a second opinion (question 4) and ease (question 11).

## **Summary**

Overall three themes emerged when responses by emergency nurses from metropolitan, regional and rural Emergency Departments were examined in regard to what they considered important reasons for why possible primary care patients choose to attend an Emergency Department rather than a General Practitioner or Medical Centre.

1. Free service was paramount to all settings (as identified through the 'very important' responses) as was central services (questions 12, 13 and 7)
2. Difficulty in accessing General Practitioner services (questions 8, 9, 10)
3. Lack of knowledge regarding after hours access in metropolitan and regional settings (question 19).

Geographically the emergency nurses in the metropolitan and regional settings showed more uniformity in their responses, demonstrated by the fact that these nurses highlighted much the same areas when 'very important' and 'moderately important' were combined. However, the rural and regional nurses demonstrated

through their responses to question 11 (easier to get to the Emergency Department than a General Practitioner surgery or Medical Centre) that they believed possible primary care patients found it easier to access the Emergency Department than General Practitioner services and that this played into patients' decisions to attend an Emergency Department. This is of importance in both these settings where there are fewer resources in the form of General Practitioners and Medical Centres.

### **Chi Square testing for significant differences in nursing responses from rural, regional and metropolitan Emergency Departments**

When the data were examined, some trends were apparent in responses between the metropolitan, regional and rural Emergency Departments. It was decided to apply a Chi Square test to see if these trends held any statistical significance. The following results are the product of applying the Chi Square test to compare the responses by nursing staff from the metropolitan, regional and rural Emergency Departments to test for significance of difference.

For the purpose of sufficient numbers for analysis, Shoalhaven and Milton Emergency Departments were combined to form the 'rural' group; Shellharbour and Bulli Emergency Departments were joined to form a 'regional' group and Wollongong hospital was labelled 'metropolitan'. These groupings were consistent with how these departments are classed within the Area Health Service (NSW Health 2002). These groupings and terms chosen for analysis are ones commonly used for the departments in relation to their population and service provision, as seen in Table 2 earlier (NSW Health 2002). This grouping maximised reliability when the chi square test was applied to the data.

Although Chi Square testing was performed on all nineteen questions within the questionnaire, Table 5 only shows the results deemed significant by *p* value. Appendix 13 shows all results obtained when the Chi Square test was performed.

- **Table 5: Statistical significance of difference for responses when metropolitan, regional and rural Emergency Departments were compared**

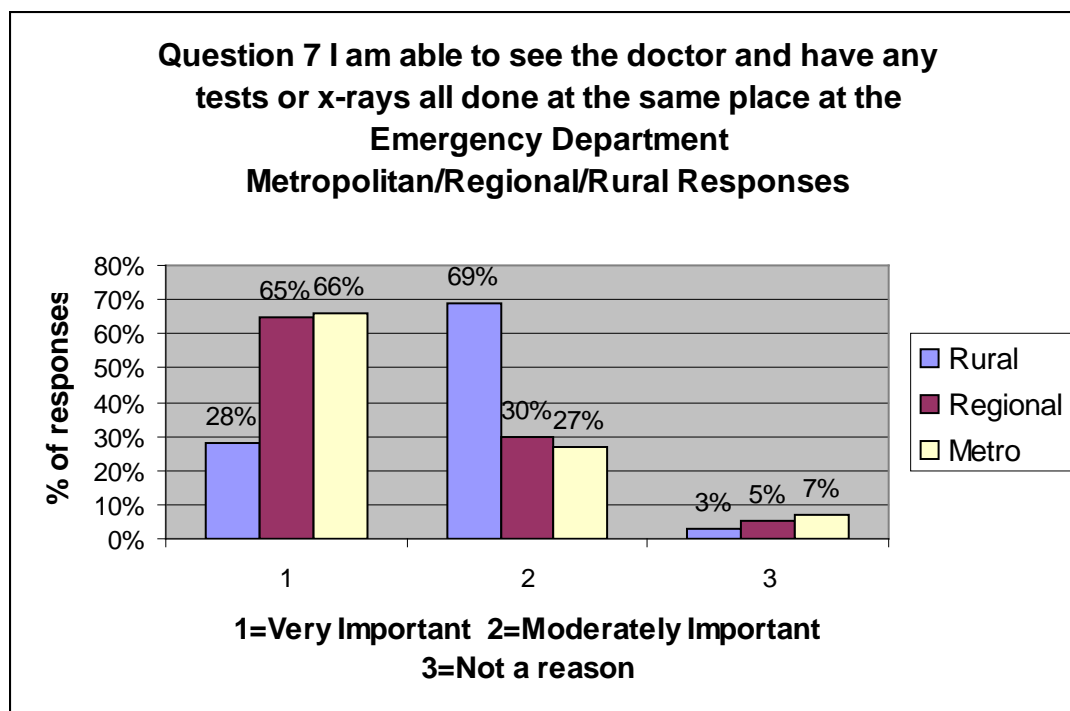
Question Number (from questionnaire)	<i>p</i> value	Degrees of Freedom	Chi Squared value
7	0.008***	4	13.92
9	0.003***	4	16.00
15	0.026*	4	11.08

- 
- By convention, significant difference is conveyed at 0.05, 0.01 or 0.001 levels; that is, the chance of a difference occurring due to chance is 5 times in 100, 1 time in 100 or 1 time in 1000 respectively. This is represented in this table (and all future tables concerning Chi Square testing) by the use of asterisks where \* is equivalent to 0.05; \*\* is equivalent to 0.01; and \*\*\* is equivalent to 0.001.
- Since significant *p* values occurred in the above questions (7, 9 and 15), this showed key differences between metropolitan, regional and rural Emergency Department nurses responses for these three items. To further explore these differences, the three questions where significant difference was highlighted are graphed below to illustrate where the variance in results occurred (Figures 5,6,7).

Figure 5 presents a bar graph indicating the percentage of responses to question 7 (able to see the doctor and have any tests or x-rays all done in the same place at the Emergency Department) by nursing staff from rural Emergency Departments, regional Emergency Departments and the metropolitan Emergency Department. It is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

- **Figure 5: Question 7 (able to see the doctor and have any tests or x-rays all done in the same place at the Emergency Department) results for Metropolitan/Regional/Rural Emergency Departments**





In breaking down the responses the following percentages were obtained:

- Very important responses
  - Metropolitan = 66%; Regional = 65%; Rural = 28%
- Moderately important responses
  - Metropolitan = 27%; Regional = 30%; Rural = 69%
- Not a reason responses
  - Metropolitan = 7%; Regional = 5%; Rural = 3%

It is evident from Figure 5 that metropolitan and regional nurses working in Emergency Departments considered that the ability of patients to see a doctor and have all tests and x-rays in the same place was a 'very important' reason that possible primary care patients would choose to come to an Emergency Department for treatment rather than a General Practitioner or Medical Centre. On the other hand, rural emergency nurses demonstrated that they did not think that being able to access such services was a 'very important' reason for possible primary care patients coming to an Emergency Department for care as demonstrated by the considerably lower percentage of 'very important' responses.

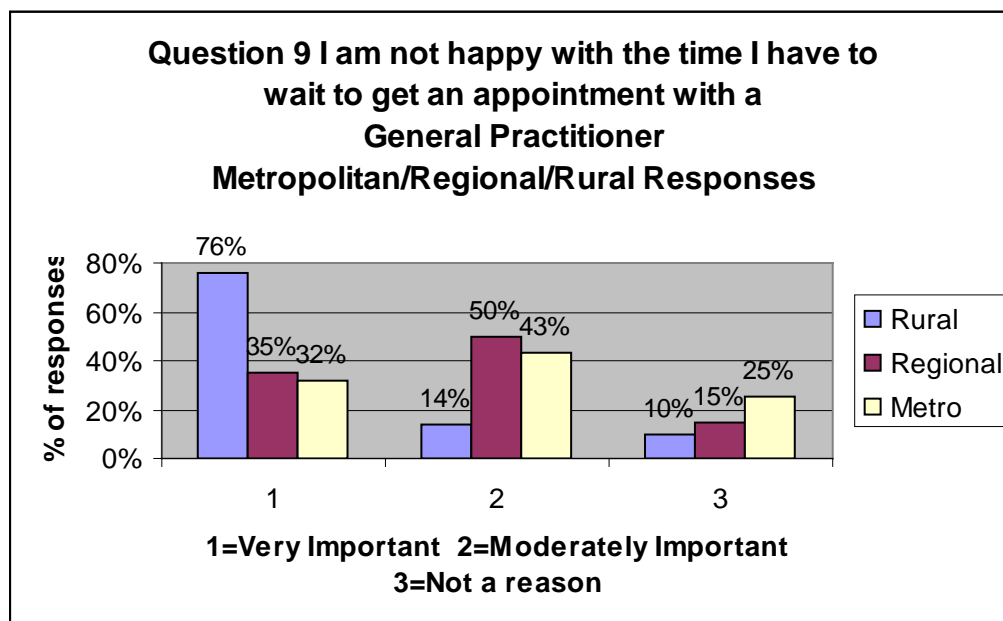
Hence this graph demonstrates that the significant difference shown through the  $p$  value ( $p < 0.001$ ) was determined by the rural emergency nurses responses to this

question being significantly different to those of their metropolitan and regional colleagues in regards to central access to a doctor and all adjunct tests and x-rays (question 7). Nurses working in a rural Emergency Department tended not to consider that possible primary care patients deemed this reason as 'very important'. They thought it could be a 'moderately important' reason for patients presenting for treatment to an Emergency Department but not a 'very important' reason.

Therefore it appears that those nurses working in Emergency Departments in metropolitan and regional settings believed that possible primary care patients want to have all services performed in the one location, and base their decision to present to the Emergency Department around this factor. The nurses working in rural settings believed this was an important reason for possible primary care patients but not a 'very important' reason that would solely influence their decision to attend an Emergency Department rather than a General Practitioner or Medical Centre.

The second question where significance was demonstrated through Chi Square testing was question 9 (I am not happy with the time I have to wait to get an appointment with a General Practitioner). The following bar graph (Figure 6) presents where variance in responses by nurses occurred for this question between the metropolitan, regional and rural departments. It is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

- **Figure 6: Question 9 (I am not happy with the time I have to wait to get an appointment with a General Practitioner) results for**
- **Metropolitan/Regional/Rural Emergency Departments**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - Metropolitan = 32%; Regional = 35%; Rural = 76%
- Moderately important responses
  - Metropolitan = 43%; Regional = 50%; Rural = 14%
- Not a reason responses
  - Metropolitan = 25%; Regional = 15%; Rural = 10%

It is seems evident from Figure 6 that nurses working in rural Emergency Departments considered question 9 (not happy with the time to wait to get an appointment with a General Practitioner) to be a 'very important' reason for possible primary care patients choosing to come to an Emergency Department for treatment rather than a General Practitioner or Medical Centre. Metropolitan and regional emergency nurses demonstrated that they did not think that having to wait for an appointment to see a General Practitioner was a 'very important' reason for possible primary care patients coming to an Emergency Department for care, but held moderate importance.

▪

- Figure 6 shows significantly higher 'very important' responses to question 9 (not happy with the time to wait to get an appointment with a General Practitioner) from the responses of the nurses in the rural Emergency Departments than the other sites. Seventy six percent (76%) of all rural nurses rated this question as a 'very important' reason for possible primary care patients coming to an Emergency Department rather than another service ( $p<0.001$ ), compared to 32% of metropolitan nurses and 35% of regional nurses.

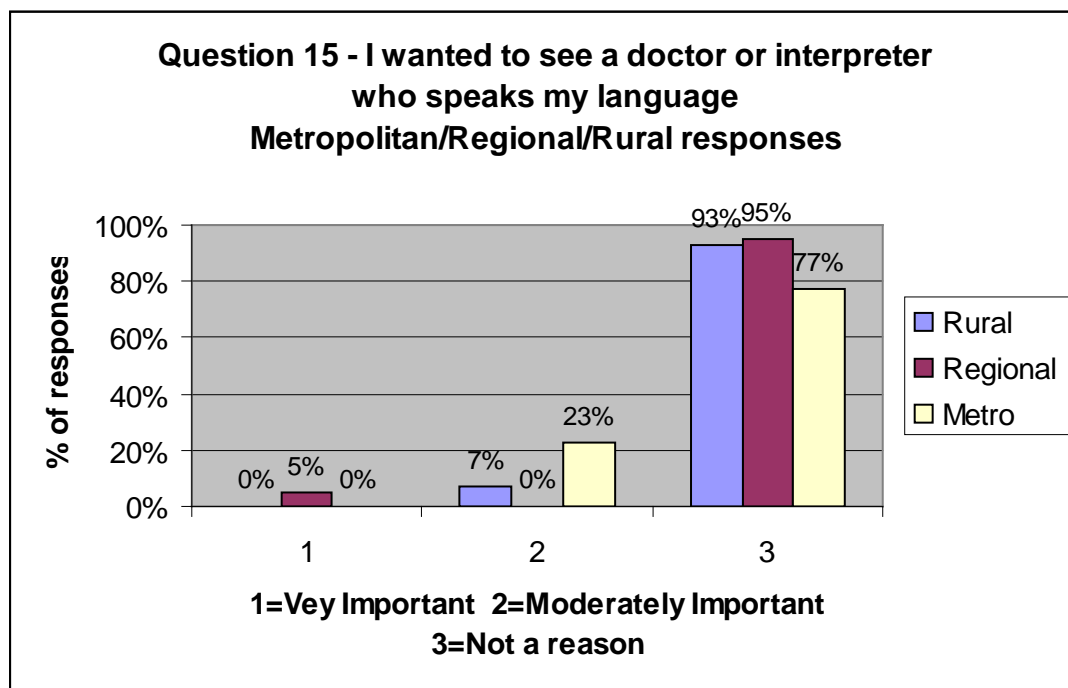
It may therefore be that nurses working in Emergency Departments in rural settings believe that possible primary care patients are unable to get timely appointments with General Practitioners in the rural setting, and hence make a decision to present to the Emergency Department. Nurses working in metropolitan and regional Emergency Departments show through their responses that they believe this holds some level of importance for possible primary care patients in making their decision to present to an Emergency Department, but is not a key reason. It could be possible that metropolitan and regional nurses do not consider access to General Practitioner services to be a great problem, but rural nurses see this as impacting on possible primary care patients significantly in rural areas and hence this patient population presents to the Emergency Department from need perhaps rather than choice.

Question 9 (not happy with the time I have to wait to get an appointment with a General Practitioner) was identified as having significant difference between the rural Emergency Departments and the other metropolitan and regional departments. It concerns timely access to General Practitioner services. Other questions concerning General Practitioner access are questions 8 (not able to get in as a patient at a General Practitioner surgery as the books are closed), 10 (not like making appointments and prefer to the Emergency Department as I can attend when I want) and 11 (it is easier to get to the Emergency Department than a General Practitioner or Medical Centre). Although these questions consider slightly different issues, they still relate to General Practitioner access and so it is unclear why question 9 showed significant differences yet no other question pertaining to General Practitioner access presented any data indicating significant difference.

The third question where significant difference was demonstrated through Chi Square testing was question 15 (wanted to see a doctor or interpreter who speaks

my language). The following graph (Figure 7) presents a bar graph indicating the percentage of responses to this question by nursing staff from rural Emergency Departments, regional Emergency Departments and the metropolitan Emergency Department. It shows where the variance in results occurred for this question between metropolitan, regional and rural department responses by nurses. Figure 7 is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

▪ **Figure 7: Question 15 (I wanted to see a doctor or interpreter who speaks my language) results for Metropolitan/Regional/Rural Emergency Departments**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - Metropolitan = 0%; Regional = 5%; Rural = 0%
- Moderately important responses
  - Metropolitan = 23%; Regional = 0%; Rural = 7%
- Not a reason responses

- Metropolitan = 77%; Regional = 95%; Rural = 93%

- It would appear that this question relating to interpreter services is not perceived to be a major factor for possible primary care patients coming to an Emergency Department by nurses from any department. The metropolitan emergency nurses were slightly more positive than the regional and rural emergency nurses in assuming it could be a 'moderately important' reason for possible primary care patients choosing to come to an Emergency Department for care. However, since only 23% of responses indicated this as holding a level of importance it cannot be taken to be particularly meaningful.

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- However, this Chi Square result highlights that the metropolitan Emergency Department deemed the use of interpreters more highly for the possible primary care patient than their counterpart nurses in regional and rural settings ( $p < 0.05$ ). Although only rated as 'moderately important', the numbers of responses were larger than the other regional and rural Emergency Departments who did not consider the use of interpreters as playing any part in possible primary care patients using the Emergency Department rather than a General Practitioner or Medical Centre.

Despite showing significance when the Chi Square test was applied ( $p < 0.05$ ), it did not rank in any of the Emergency Departments top responses, as evidenced in Table 1 previously. This is due to fact that the significance was determined by the 'moderately important' responses rather than the 'very important' reasons nursing staff assumed for possible primary care patients, when comparing metropolitan, regional and rural Emergency Departments.

## Summary

Three questions demonstrated significant differences among metropolitan, regional and rural emergency nurses in their perceptions of why possible primary care patients choose to come to an Emergency Department. These were questions 7 (able to see the doctor and have any tests or x-rays all done in the same place at the Emergency Department), question 9 (not happy with the time to wait to get an appointment with a General Practitioner) and 15 (wanted to see a doctor or

interpreter who speaks my language). Questions 7 and 15 concern services the Emergency Department provide that may not be available in a General Practice or Medical Centre. Question 9 refers to accessibility of General Practitioner services to the possible primary care patient.

Therefore the key findings were that rural emergency nurses considered problematic access to General Practitioner services were a 'very important' reason for possible primary care patients when they were making decisions about where to seek medical help. Rural emergency nurses did not consider the ability to see a doctor and have adjunct services provided in the same location to be as important for possible primary care patients as did their regional and metropolitan colleagues. Nursing staff from the regional and metropolitan Emergency Departments thought this was a key reason for possible primary care patients choosing to come to an Emergency Department for treatment and care.

Another interesting finding from these results showed that nurses from the metropolitan Emergency Department considered access to interpreter services a 'moderately important' reason for possible primary care patients coming to the Emergency Department rather than a General Practitioner service. The regional and rural nursing staff did not give any value to this reason for possible primary care patients coming to an Emergency Department for service provision. Although the responses from the metropolitan emergency nurses were quite small with only 23% marking this as a 'moderately important' reason for possible primary care patients choosing to come to an Emergency Department for care, this number of responses is a significant number when compared to the other departments number of responses. This piece of data may point out a lack of concern for this patient population or it may be a sense of self-fulfilling prophecy on the part of nurses if they consider that there is no point utilising this service as interpreters are difficult, or even impossible, to access. These points are certainly a possibility for the rural and regional emergency nurses who do not have interpreter services easily accessible.

## **Summary and Conclusion of comparison of metropolitan, regional and rural emergency nurses responses**

In summary then, there is a great deal of agreement amongst emergency nurses from metropolitan, regional and rural departments. Very little difference is evident between the metropolitan, regional and rural emergency nursing staff in their responses to why they consider possible primary care patients attend an Emergency Department for treatment rather than a General Practitioner or Medical Centre. All agreed that they perceived that cost is the main factor that possible primary care patient's consider when making their decisions to attend an Emergency Department for care. Some differences occurred in the rural departments where nursing staff considered (in addition to cost) that lack of access to General Practitioner services in rural areas was a major factor in this possible primary care patient population attending the Emergency Department.

When 'very important' responses were considered alone, consistency was evident between metropolitan, regional and rural nursing staff. Emergency nursing staff clearly felt strongly about particular reasons they thought possible primary care patients attend an Emergency Department. This is evidenced by the metropolitan, regional and rural departments having only three or four questions where greater than 66% of nursing staff agreed on the importance of the reason.

When 'moderately important' reasons were added to the responses, consensus remained among the emergency nurses in the various Emergency Departments, with a number of other reasons being considered by the nurses as reasons that possible primary care patients come to an Emergency Department. For the rural emergency nurses, these additional reasons focused on primary care access, while metropolitan and regional emergency nurses had a broader range of reasons that particularly centred on clinical considerations such as urgency, complexity and better treatment, as well as access to General Practitioner services.

When the Chi Square data was examined, it indicated that the rural nurses did not agree with the metropolitan and regional emergency nurses that it was 'very important' to possible primary care patients coming to an Emergency Department



that all services are available at the one place. The Chi Square test also indicated that rural nurses thought the time possible primary care patients had to wait to see a General Practitioner was a large factor in why this patient group choose to come to an Emergency Department – with very high numbers of responses indicating it to be a ‘very important’ reason. Metropolitan and regional emergency nurses did not agree with the level of importance, thinking it was a ‘moderately important’ reason only for these patients when they were considering where to go for medical treatment.

One other area of difference was highlighted by the Chi Square test. This difference related to the metropolitan emergency nurses placing some level of importance on the availability of interpreters for possible primary care patients in their decision to attend an Emergency Department. The regional and rural nurses did not think this service played any part in the possible primary care patient choosing to come to an Emergency Department.

In the main, the most common reasons identified by emergency nurses that possible primary care patients come to an Emergency Department are for reasons associated with cost of service delivery at the point of access. The key theme that emerged from the comparison between metropolitan, regional and rural emergency nurses was that the vast majority of emergency nurses who responded to the questionnaire considered possible primary care patients wanted an all encompassing service that was free and hence came to an Emergency Department rather than a General Practitioner or Medical Centre.

### **Part 3: Data comparing various positions that nursing staff held within the Emergency Departments**

The third component to be analysed concerned the position that the nurses held within the Emergency Department they worked in. The analysis sought to determine whether the positions that emergency nurses held had any bearing on their responses as to why they thought possible primary care patients attended an Emergency Department for treatment. The various positions held by nursing staff within the former Illawarra Health Service Emergency Departments are listed below in Table 6.

▪ **Table 6: Various positions held by nurses in the Emergency Departments within the former Illawarra Health Service**

▪

<b>Position</b>	<b>Full title</b>	<b>Brief explanation of position</b>
<b>RN</b>	Registered Nurse	The registered nurse demonstrates competence in the provision of nursing care as specified by the registering authority's licence to practice, educational preparation, relevant legislation, standards and codes, and context of care. The registered nurse practices independently and interdependently assuming accountability and responsibility for their own actions and delegation of care to enrolled nurses and health care workers. The registered nurse assesses, plans, implements and evaluates nursing care in collaboration with individual/s and the multidisciplinary health care team so as to achieve goals and health outcomes (ANMC <sup>2</sup> 2006)
<b>EN</b>	Enrolled Nurse	The enrolled nurse is an associate to the registered nurse and works under the direction and supervision of the registered nurse. At all times, the enrolled nurse retains responsibility for his/her actions and remains accountable in providing delegated nursing care. Core enrolled nurse responsibilities in the provision of patient centred nursing care include recognition of normal and abnormal in assessment, intervention and evaluation of individual health and functional status, monitoring the impact of nursing care and maintaining ongoing communication with the registered nurse regarding the health and functional status of individuals (ANMC 2002)

<b>ACN</b>	Advanced Clinical Nurse	The Advanced Clinical Nurse (ACN) functions at an extended level, providing earlier implementation of appropriate clinical care. This care is implemented under Emergency Department (ED) standing orders. These extended duties include cannulation/venepuncture, arterial blood gas sampling, wound management, medications, initiating of diagnostic radiology and pathology, limb stabilization with POP. All these duties are implemented under standing orders (SHN Policy and Practice 2006)
<b>CNS</b>	Clinical Nurse Specialist	A Registered Nurse who applies a high level of clinical nursing knowledge, experience and skills in providing complex nursing care directed towards a specific area of practice, a defined population or defined service area, with minimum direct supervision. A Clinical Nurse Specialist actively contributes to the development of clinical practice in the ward/unit/service; acts as a resource and mentor to others in relation to clinical practice; and actively contributes to their own professional development (NSW Health Workplace Relations & Management 2008)
<b>NUM</b>	Nurse Unit Manager	A registered nurse in charge of a ward or unit or group of wards or units in a public hospital or health service or public health organisation whose responsibilities include: co-ordination of patient services; unit management; and nursing staff management (NSW Health Workplace Relations & Management 2008)
<b>NP</b>	Nurse Practitioner	A nurse practitioner is a registered nurse educated and authorised to function autonomously and collaboratively in an advanced and extended clinical role. The role includes assessment and management of clients using nursing knowledge and skills and may include but is not limited to the direct referral of patients to other health care professionals, prescribing medications and ordering diagnostic investigations. The scope of practice of the nurse practitioner is determined by the context in which the nurse practitioner is authorised to practise (ANMC <sup>1</sup> 2006)

For the purpose of analysis, these positions were grouped according to responsibility. That is, the positions entailing a managerial or advanced practice role (ACN, CNS, NUM, NP) were joined into one group and the RN and EN positions were placed together. This divided the positions according to role and also assisted in spreading numbers in the most equitable way. This division helped ensure sufficient numbers for reliable analysis when the Chi Square test was applied to the data.

## **Comparison of responses of nursing staff holding different positions and levels of responsibility within the Emergency Department**

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### **Ranking of responses**

- A means of demonstrating similarities and differences between managerial and advanced practice positions with RN and EN positions was to rank the 'very important' reasons that nurses holding various positions within the Emergency Departments believed possible primary care patients seek Emergency Department care. The following table, Table 7, presents these 'very important' reasons under the headings of: Managerial and Advanced Practice, and RN and EN Emergency Department nurses.

Initially the rankings were to be in the form of a 'top 5' reasons for each group of nurses. This was not the best approach as when the top 5 for each group were compared they varied slightly. To deal with this and to add further discrimination of the data, a response rate of over 66% of respondents saying an item was a 'very important' reason was judged by the researcher as 'significant'. Table 7 presents the data related to those items where at least 66% of respondents rated it a being a 'very important' reason primary care patients seek care in an Emergency Department. Those rankings highlighted in red relate to those cases where responses exceeded the 66% 'very important' level.

▪ **Table 7: Ranking of top five ‘very important’ reasons identified through the questionnaire for the two groups of nursing positions**

▪ Question number from the questionnaire distributed to nursing staff	▪ <b>Managerial &amp; Advanced Practice</b>	▪ <b>RN &amp; EN</b>
▪ <b>Q.12 No charge to see a doctor at the ED</b>	3 54.5%	1 84.5%
▪ <b>Q.13 No charge for X-rays or medicine at the ED</b>	2 63.6%	2 81.7%
▪ <b>Q.8 Not able to get in as a patient at a GP surgery as the books are closed</b>	1 68.2%	3 57.7%
▪ <b>Q.7 See doctor and have all tests and x-rays in same place</b>	3 54.5%	4 53.5%
▪ <b>Q.9 Not happy with wait to get appointment with GP</b>	3 54.5%	5 43.7%

This table clearly demonstrates a high level of consistency amongst nursing staff regarding why they felt primary care patients attend Emergency Departments, irrespective of which position they held within the Emergency Department, despite variations in priorities. This is shown by the top 5 responses for each group being confined to the same 5 items. Of particular note is the small number of questions where some level of importance can be considered, that is, only three questions received enough responses to qualify as important when the value of 66% is used.

However, Table 7 does seem to highlight more differences than similarities. This is shown particularly through the variation in the percentage of responses for the top reasons identified by the two groups of emergency nurses. The question concerning patients being unable to get into their General Practitioner due to books being closed was ranked highest by the managerial and advanced practice nurses (68% of responses), with this group of nursing staff indicating its importance as higher than the free medical service an Emergency Department offers (question 12, 55% of

responses). However, the registered and enrolled nursing staff did not consider this to be as important a reason for possible primary care patient presentation with only 58% of this group ranking it as 'very important'.

Another key difference between the two groups of emergency nurses was evidenced in questions 12 and 13 (questions 12 – no charge to see a doctor in the Emergency Department; and 13 – no charge for x-rays or medicine at the Emergency Department). This ranked first for registered and enrolled emergency nurses with 85% and 82% respectively of this group of nurses indicating free service(s) to be a 'very important' reason they considered possible primary care patients come to an Emergency Department for care. The managerial and advanced practice nurses ranked these questions third and second respectively, but the percentage of responses fell below 66% (55% and 64% respectively) indicating that this group of advanced practitioners did not consider it to be as important a reason as the registered and enrolled nurse group.

Although the two groups of nurses had the same 'top 5' reasons they considered possible primary care patients come to an Emergency Department, there was little consistency between the two groups of nurses in terms of percentages of responses. Therefore what is indicated through Table 7 is that nurses in management or advanced practice roles consider access to General Practitioner services for possible primary care patients a problem and hence a reason for those patients to come to the Emergency Department. Meanwhile, registered and enrolled nurses seem to consider that possible primary care patients want free consultation and services and so choose the Emergency Department for their care. This is evident from the minimum response rate of 81% from the registered and enrolled nurses to questions 12 and 13, indicating these two questions to be 'very important' reasons they thought possible primary care patients attend an Emergency Department rather than a General Practitioner or Medical Centre.

For those nurses holding managerial and advanced practice roles only one question received more than 66% of 'very important' responses and that was question 8 (not able to get in as a patient at a General Practitioner surgery because books closed). In fact, the top five 'very important' ranked responses from the emergency nurses

holding managerial and advanced practice roles ranged between 55 and 68% which asks the question of whether these nurses were convinced that any particular reason formed the decision for the possible primary care patient in whether to attend an Emergency Department.

These trends seen through this data suggested differences and so a chi square test was performed to test for significance of difference. The results of the Chi Square test are outlined later in this section of the chapter pertaining to various nursing positions and their influence on responses to the questionnaire.

### **Comparison of managerial and advanced practice emergency nurses with registered and enrolled emergency nurses 'not a reason' responses**

Having now looked at emergency nursing staff responses regarding various levels of importance, the following figure, Figure 8, considers the responses those nurses from the two groups of position holders deemed 'not a reason' for possible primary care patients choosing to present to an Emergency Department. Figure 8 is represented as a bar graph where nursing responses from the managerial and advanced practice nurses form the first column and registered and enrolled nurses form the second column.

■ **Figure 8: Percentage of ‘not a reason’ responses for all questions within the questionnaire by managerial & advanced practice nurses and by RNs & ENs**

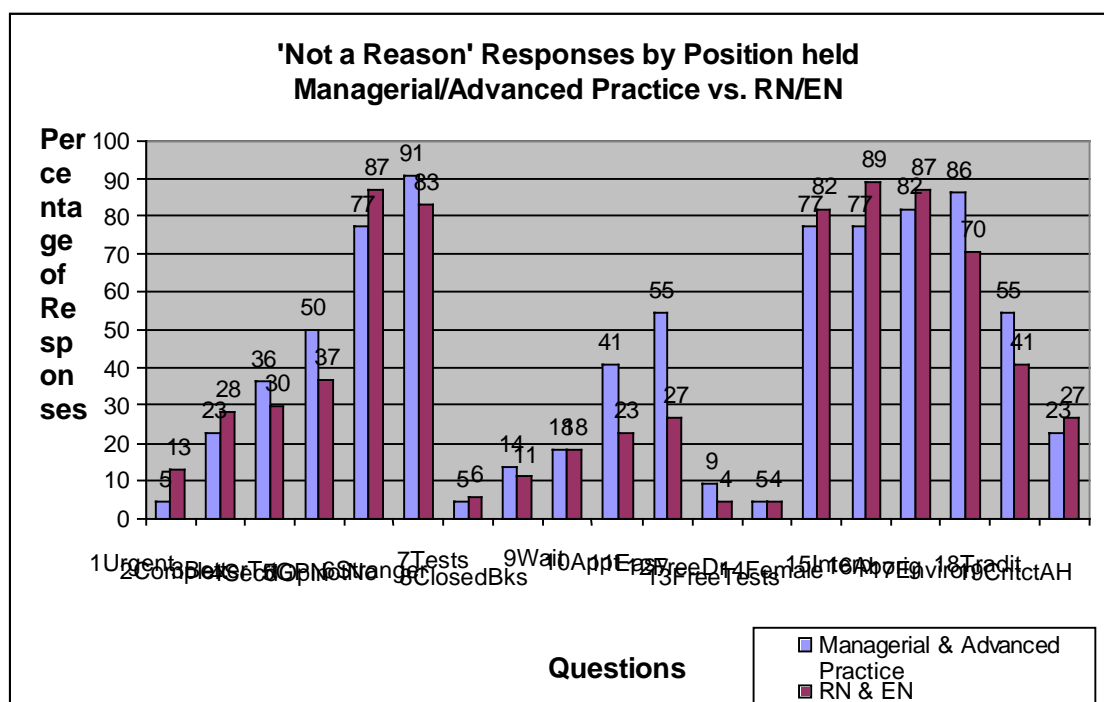


Figure 8 shows consensus amongst all nursing staff in what they considered to be ‘not a reason’ that possible primary care patients choose to present to an Emergency Department for care, irrespective of the position the nurse held within the Emergency Department. The agreement occurred in three questions relating to anonymity (questions 5, 6, and 17) – question 5 (did not want my General Practitioner to know about my health problem); question 6 (prefer to talk to a doctor I don’t know); and question 17 (prefer the Emergency Department environment to a General Practitioner surgery or Medical Centre). The agreement also occurred in three questions describing additional services the patient may want that are not available in the general practice arena (questions 14, 15 and 16) – question 14 (wanted to see a female doctor and I thought I could at the Emergency Department), question 15 (wanted to see a doctor or interpreter who speaks my language) and question 16 (wanted to be able to see Aboriginal health staff if I needed to). This series of responses (‘not a reason’) indicate a great level of consistency across all positions held within the Emergency Department, that is, managerial and advanced practice nurses as well as registered and enrolled nurses.



It was again interesting that the additional reasons pertaining to interpreter services and Aboriginal health staff were highlighted as 'not a reason' by the majority of nurses (as previously seen in comparison of different departments). It is known that the Illawarra region has a substantial multicultural and Aboriginal population, so it is unclear why the nursing staff did not regard either of these services as important for the possible primary care patients to choose to use the Emergency Department for service provision.

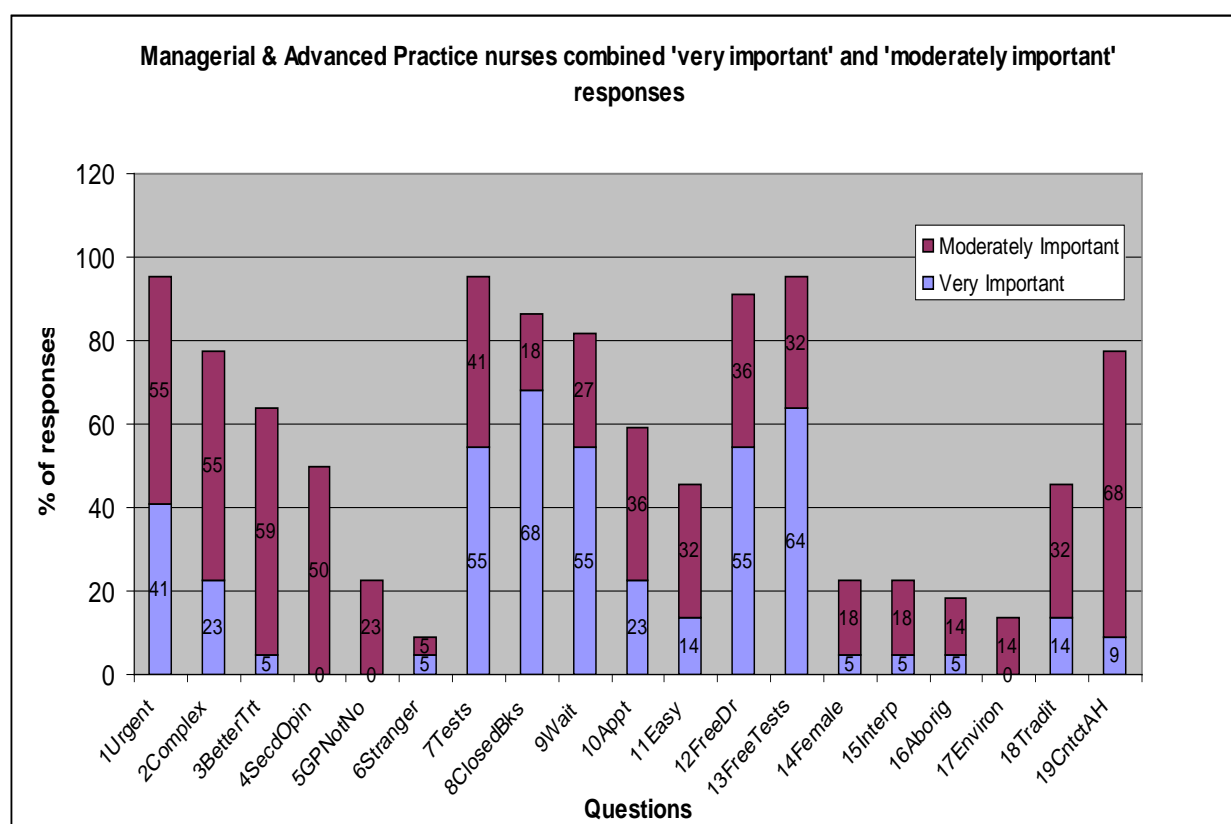
### **'Very important' and 'moderately important' combined responses by nurses**

Table 7 identified the 'very important' reasons recorded by nursing staff holding managerial or advanced practice roles as well as RN or EN roles. The researcher wanted to determine whether these reasons remained consistent when 'moderately important' reasons were pooled with 'very important' reasons (indicating some form of importance) for the groups, that is, the managerial and advanced practice nurses and the registered and enrolled nurses. The results of these combined 'very important' and 'moderately important' responses are seen in Figures 9 and 10.

### **Managerial and advanced practice nurses combined 'very important' and 'moderately important' responses**

To begin with combined 'moderately important' and 'very important' responses to the questionnaire by the managerial and advanced practice nurses will be examined. Figure 9 presents data in the form of a stacked column graph where the contribution of each level of importance ('very important' and 'moderately important') is compared to the total across both categories.

▪ **Figure 9: Managerial and advanced practice nurses combined 'very important' and 'moderately important' responses to questions on the questionnaire**



As previously identified, a response rate of over 66% of respondents indicating an item held some level of importance was judged by the researcher as 'significant'. Using this number, Figure 9 demonstrates which questions emergency nurses holding managerial or advanced practice positions rated as having some level of importance in what they consider to be reasons that possible primary care patients choose to attend an Emergency Department. When emergency nurses holding managerial or advanced practice positions 'moderately important' reasons were added to the 'very important' reasons they thought possible primary care patients may attend an Emergency Department, it is seen that a wider scope of reasons emerge than when 'very important' reasons alone were examined.

Figure 9 shows that emergency nurses holding managerial or advanced practice positions have a broad range of reasons they consider possible primary care patients may attend an Emergency Department when 'moderately important' answers are combined with 'very important' responses, since seven additional

questions were considered important (when a response rate of 66% is taken as meaningful).

Previously in Table 7 it was identified that emergency nurses holding managerial or advanced practice positions considered the most important reason possible primary care patients presented to the Emergency Department were due to a lack of access to General Practitioner services (with questions 8 having greater than 66% of responses). Figure 9 above makes it is clear that in addition to this reason, emergency nurses in managerial or advanced practice roles consider other important reasons that possible primary care patients come to an Emergency Department to include reasons of perceived urgency by the patient (question 1, 96% of combined responses); perceived complexity of the condition by the patient (question 2, 78% of combined responses); ease for the patient in service provision (question 7, 96% of combined responses); access to appointments with General Practitioners (question 9, 82% of combined responses); free service(s) provision (questions 12 and 13, 91% and 96% of combined responses); and access of after hours medical services (question 19, 77% of combined responses).

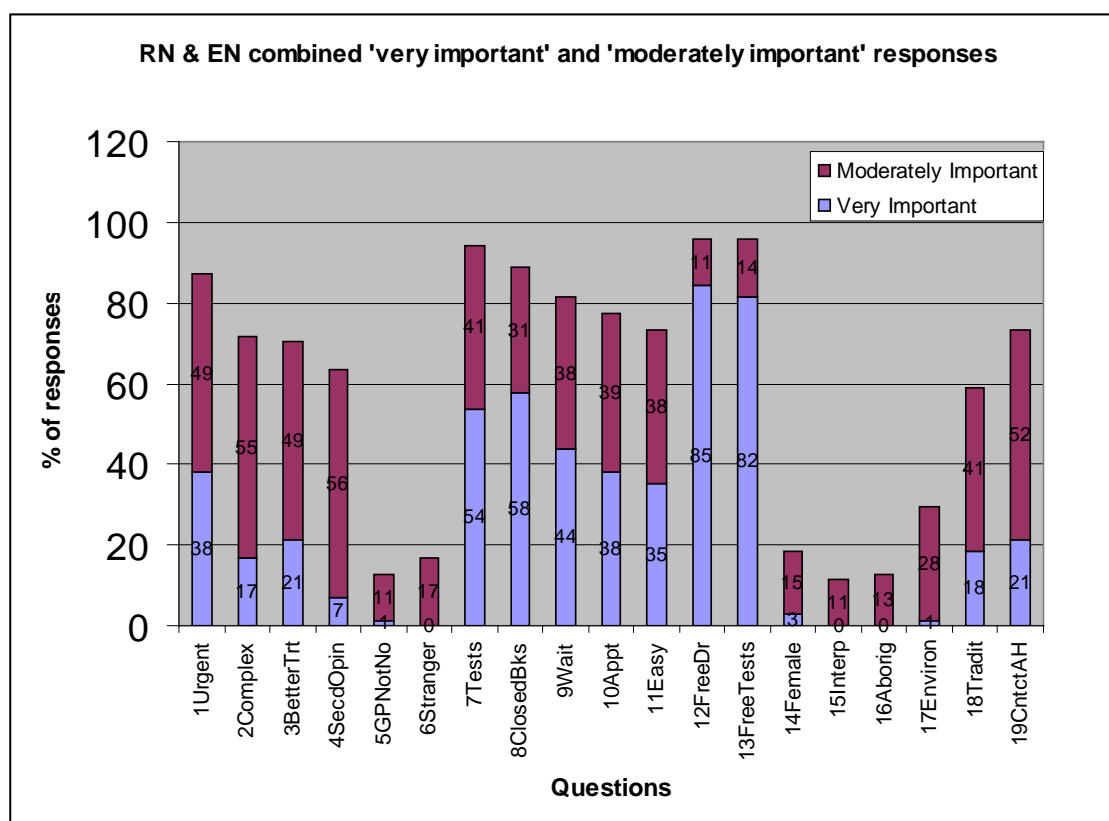
These responses seem to indicate that emergency nurses holding managerial or advanced practice positions had clear reasons they regarded possible primary care patients choosing an Emergency Department for treatment rather than a General Practitioner or Medical Centre. This is seen by the consensus of responses indicated through high percentages of agreed responses in relation to free and easy service provision, General Practitioner access and availability, and the patient's perception of the urgency or complexity of their condition. This would indicate that senior emergency nurses in managerial or advanced practice positions have definite opinions about why a possible primary care patient will choose the Emergency Department for care.

### **RN and EN combined 'very important' and 'moderately important' responses**

Figure 10 demonstrates in a stacked column graph the combined 'very important' and 'moderately important' responses to the questionnaire by registered and enrolled

nurses to the questionnaire. It shows each level of importance ('very important' and 'moderately important') compared to the total across both categories.

▪ **Figure 10: RN & EN combined 'very important' and 'moderately important' responses to questions on the questionnaire**



When 'very important' and 'moderately important' reasons were combined and examined for registered and enrolled nursing staff working in Emergency Departments, strong agreement occurred in a number of questions, broadening the range of responses from cost (questions 12 and 13) which was evident from the 'very important' responses seen earlier (Table 7) to include a number of other reasons.

By once again taking a figure of 66% as meaningful, the following questions scored well above this percentage showing that registered and enrolled emergency nurses held an additional nine reasons as important to some degree when they considered why possible primary care patients came to an Emergency Department for care. The additional questions were perceived patient urgency and complexity (questions 1 and 2, 87% and 72% of combined responses); better treatment in the Emergency

Department (question 3, 70% of combined responses); access to services such as x-ray and pathology in the one place (question 7, 95% of combined responses); inability to get into General Practitioner services (questions 8 and 9, 89% and 82% for combined responses); not wanting to make an appointment with a General Practitioner (question 10, 77% of combined responses); ease of access to the Emergency Department (question 11, 73% of combined responses); and not knowing how to access after hours General Practitioner services (question 19, 73% of combined responses). By combining 'very important' and 'moderately important' responses by registered and enrolled nursing staff, free service (questions 12 and 13) remained the highest responses, however half of the potential reasons that possible primary care patients may attend an Emergency Department for treatment were deemed to hold importance of some degree to this group of nurses.

By combining 'very important' and 'moderately important' responses by registered and enrolled nursing staff, it becomes clear that no distinct reasons are highlighted as important anymore since eleven out of nineteen potential reasons that possible primary care patients may attend an Emergency Department for treatment were deemed to hold importance of some degree to this group of registered and enrolled emergency nurses. This was indicated by more than 66% of nursing staff deeming some level of importance to those eleven questions.

So there is no clear link evidenced in the responses by the registered and enrolled emergency nurses. No general theme(s) emerged when the responses holding some degree of importance about why possible primary care patients will choose to attend an Emergency Department by these registered and enrolled nurses were examined. There tended to be a general rating of importance for many potential reasons for presentation, thus suggesting a lack of consensus. The agreement occurs primarily in relation to the delivery of free service(s), both of which scored highly in the 'very important' responses.

### **Comparison of managerial and advanced practice nurses with registered and enrolled nurses' responses of combined 'very important' and 'moderately important' responses**

When comparing the combined 'very important' and 'moderately important' responses between the two groups (managerial/advanced practice and RN/EN), there are patterns that emerge. The nursing staff in senior positions maintained a fairly strong focus on key reasons they thought possible primary care patients attended an Emergency Department, with only four additional questions standing out as generally important when 'moderately important' was added to 'very important' responses. These questions were regarding the patients perceived sense of urgency or complexity relating to their condition (questions 1 and 2), centralised service provision (question 7), and access to after hours medical treatment (question 19). The registered and enrolled nurses agreed that these four questions were important with similar response rates for all four questions. Question 1 (health problem required immediate attention and was too urgent to wait to see a General Practitioner or Medical Centre) was rated more highly by the senior nursing group with a response rate of 96% compared with the registered and enrolled nurses who had a response rate of 87%. The other three questions matched the managerial and advanced practice nurses responses, demonstrating a general consistency in responses across the two groups of nursing staff.

In summary, all nurses irrespective of their position within the Emergency Department agreed that important reasons for possible primary care patients when making a decision about where to seek medical treatment was due to cost (questions 12 and 13), ease (question 7), access (including after hours) (questions 8, 9 and 19), and clinical urgency (question 1).

### **Chi Square testing for significance in nursing responses from nurses holding different positions within the Emergency Department**

When the similarities were examined, some differences were apparent in responses between the managerial and advanced practice nurses and the registered and enrolled nurses. It was decided to apply a Chi Square test to see if these trends held

any statistical significance. The following results are the product of applying the Chi Square test to the responses by nursing staff holding positions in a managerial or advanced practice role or the position of registered or enrolled nurse to test for significance of difference.

For the purpose of sufficient numbers for analysis, nursing staff holding positions that were managerial at any level and nursing staff holding various positions of advanced practice were combined to form the 'managerial and advanced practice' group.

Nursing staff working as either a registered or enrolled nurse were joined to form a 'registered and enrolled nurses' group. The alignment of these positions established a group of nurses holding senior positions and other nurses working in Emergency Departments. This grouping ensured reliability when the chi square test was applied to the data.

Although Chi Square testing was performed on all nineteen questions within the questionnaire, Table 8 only shows the results deemed significant by *p* value.

Appendix 14 shows all results obtained when the Chi Square test was performed.

▪ **Table 8: Statistical significance of difference for responses when managerial and advanced practice nurses were compared with registered and enrolled nurses**

Question	<i>p</i> value	Degrees of Freedom	Chi Squared value
11	0.036*	2	6.66
12	0.012**	2	8.84

▪

▪ As previously stated, by convention, significant difference is conveyed at 0.05, 0.01 or 0.001 levels; that is, the chance of a difference occurring due to chance is 5 times in 100, 1 time in 100 or 1 time in 1000 respectively. This is represented in this table by the use of asterisks where \* is equivalent to 0.05; \*\* is equivalent to 0.01; and \*\*\* is equivalent to 0.001.

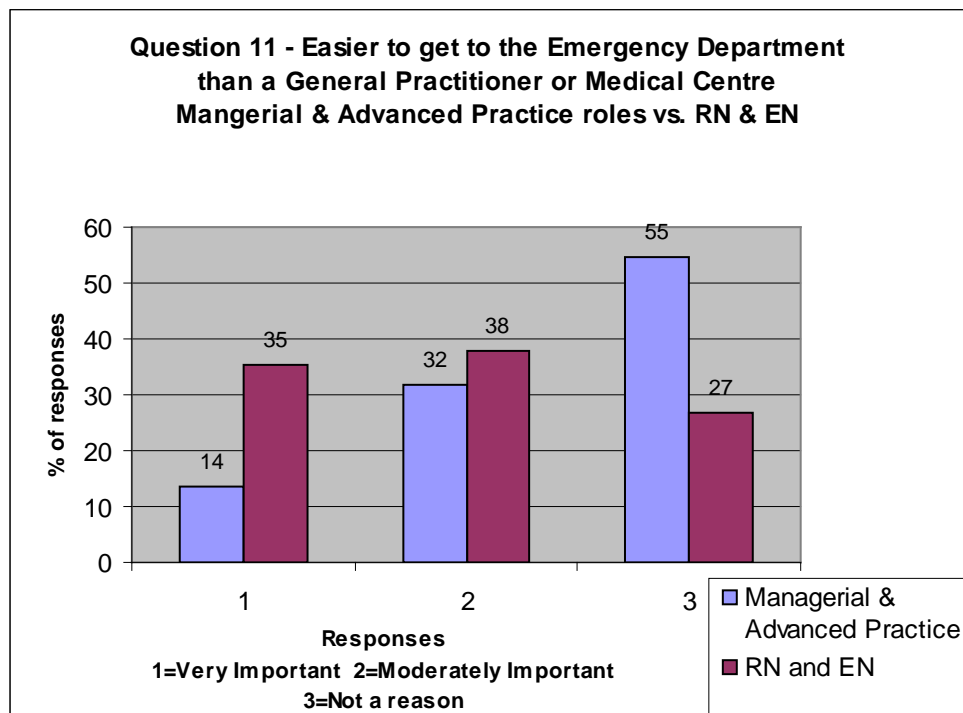
▪ Since significant *p* values occurred in questions 11 (easier to get to the Emergency Department than a General Practitioner or Medical Centre) and 12 (no

charge to see a doctor in the Emergency Department), this showed key differences in responses between managerial and advanced clinical practice positions and other clinical positions. To further explore these differences, the two questions where significance was highlighted are graphed below to draw attention to where the variance in results occurred (Figures 11 and 12).

Figure 11 presents a bar graph indicating the percentage of responses to question 11 (it is easier to get to the Emergency Department than a General Practitioner surgery or Medical Centre) by nursing staff in managerial or advanced practice roles and registered and enrolled nurses. It is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.



- **Figure 11: Question 11 (easier to get to the Emergency Department than a General Practitioner or Medical Centre) results according to position held by nursing staff**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - Managerial & Advanced Practice = 14%; RN & EN = 35%
- Moderately important responses
  - Managerial & Advanced Practice = 32%; RN & EN = 38%
- Not a reason responses
  - Managerial & Advanced Practice = 54%; RN & EN = 27%

It is evident from Figure 11 that the managerial and advanced practice nurses working in Emergency Departments considered that the ability of patients to get to an Emergency Department more easily than a General Practitioner or Medical Centre was not an important reason that possible primary care patients would choose to come to an Emergency Department for treatment rather than a General Practitioner or Medical Centre as demonstrated by the considerably higher percentage of 'not a reason' responses. On the other hand, registered and enrolled emergency nurses demonstrated that they did think that being able to easily access

an Emergency Department was an important reason for possible primary care patients coming to an Emergency Department for care.

Hence this graph demonstrates that the significant difference shown through the  $p$  value ( $p < 0.05$ ) was determined by the managerial and advanced practice nurses' responses to this question being significantly different to those registered and enrolled nurse colleagues in regards to easy access to an Emergency Department (question 11) . Nurses working in a more senior role did not consider that patients deemed this reason as 'very important'.

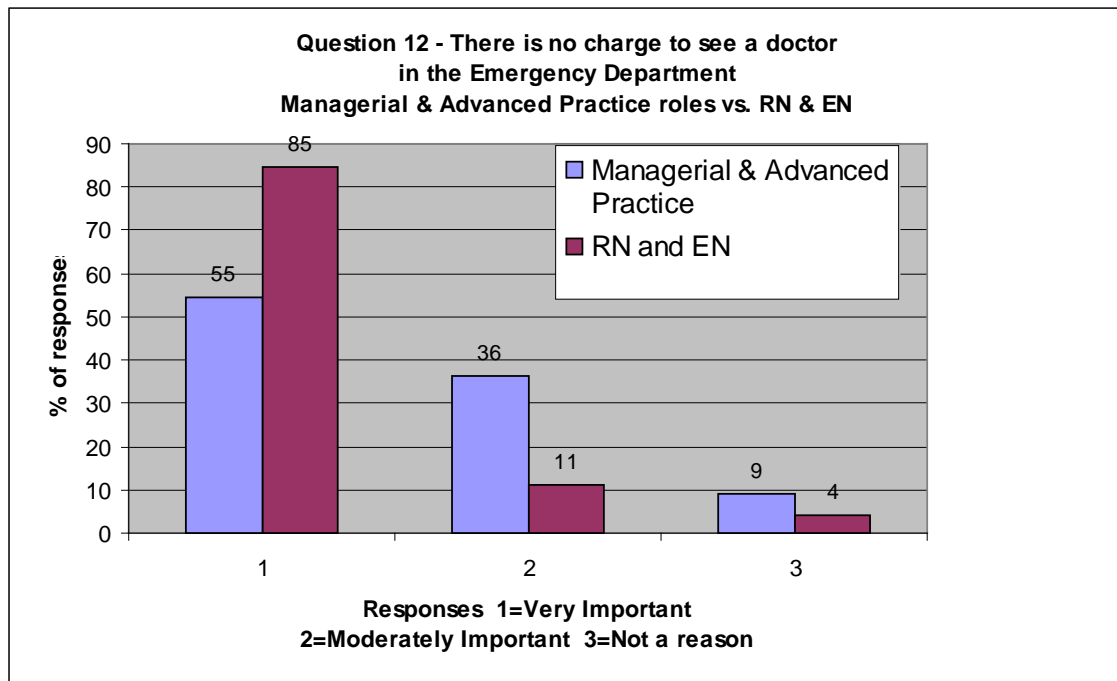
Therefore it would seem that these nurses working in managerial or advanced practice roles believed that possible primary care patients do not need to be able to access an Emergency Department easily, and so do not base their decision to present to the Emergency Department around this factor. The registered and enrolled nurses believed this was an important reason for possible primary care patients but not one that would solely influence their decision to attend an Emergency Department rather than a General Practitioner or Medical Centre. These results postulate that nurses in more senior roles within Emergency Departments do not consider ease for the patient to be a particularly important reason for patients when making decisions about where to seek medical care.

Despite question 11 (easier to get to the Emergency Department than a General Practitioner surgery or Medical Centre) showing significant difference between the two groups of positions in emergency nurses when the chi square test was applied ( $p < 0.05$ ), it did not rank in either of the groups top responses, as evidenced in Table 8 above. This is most probably due to the fact that the significance occurred in the 'not a reason' response option.

The second question where significance was demonstrated through chi square testing was question 12 (there is no charge to see a doctor at the Emergency Department). The following bar graph (Figure 12) presents where variance in responses by nurses occurred for this question between the managerial and advanced practice positions and the registered and enrolled nurse positions. It is broken into three categories where one (1) represents 'very important' responses by

nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

▪ **Figure 12: Question 12 (there is no charge to see a doctor at the Emergency Department) results according to position held by nursing staff**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - Managerial & Advanced Practice = 54%; RN & EN = 85%
- Moderately important responses
  - Managerial & Advanced Practice = 36%; RN & EN = 11%
- Not a reason responses
  - Managerial & Advanced Practice = 10%; RN & EN = 4%

From Figure 12 it can be seen that registered and enrolled nurses working in Emergency Departments considered question 12 (there is no charge to see a doctor at the Emergency Department) to be a 'very important' reason for possible primary care patients choosing to come to an Emergency Department for treatment rather than a General Practitioner or Medical Centre. Although emergency nurses in managerial and advanced practice positions also considered to be a 'very important' reason for possible primary care patients choosing to come to an Emergency

Department for treatment, the consensus of responses from this group was markedly lower than for the registered and enrolled nursing group.

- Figure 12 shows that significant difference for responses to question 12 (there is no charge to see a doctor at the Emergency Department) occurs in the registered and enrolled nurse group. Nurses working in a more senior position did not have vast agreement in their 'very important' responses to this question concerning free medical service for patients as did the registered and enrolled nurses. Eighty five percent (85%) of all registered and enrolled nurses regarded this question as a 'very important' reason for possible primary care patients coming to an Emergency Department rather than another service ( $p<0.01$ ), compared to 54% of responses from managerial and advanced practice roles.

The nurses involved in managerial and advanced practice roles did not consider the provision of a free service to patients to be as prevalent a reason for possible primary care patients presenting to Emergency Departments as registered and enrolled nurses.

These results suggest that nurses in more senior roles within Emergency Departments do not consider cost to be the overwhelming reason for possible primary care patients when they are deciding where to seek medical care, whereas they point to registered and enrolled nurses judging this reason as core to possible primary care patients' decisions in choosing medical services at the Emergency Department.

## **Summary**

Two questions demonstrated significant differences among emergency nurses holding managerial or advanced practice roles and registered and enrolled nurses in their perceptions of why possible primary care patients choose to come to an Emergency Department. These were questions 11 (easier to get to the Emergency Department than a General Practitioner surgery or Medical Centre), and question 12 (there is no charge to see a doctor at the Emergency Department). These two

questions are quite independent of each other in terms of service delivery – one relating to ease of access and the other to free service delivery.

Therefore the significant findings were that registered and enrolled emergency nurses considered free service delivery a ‘very important’ reason for possible primary care patients when they were making decisions about where to seek medical help. Emergency nurses in managerial or advanced practice roles considered this reason to be important, but not as important as their registered and enrolled nurse colleagues. Emergency nurses holding managerial or advanced practice roles did not consider that the ease of getting to an Emergency Department to be an important reason for possible primary care patients in choosing where to come for medical treatment.

▪

### **Summary and Conclusion of comparison of managerial and advanced practice versus registered and enrolled nurses**

In summary then, there is consistency between all nurses irrespective of the position they hold within the Emergency Department in that they believe possible primary care patients attend an Emergency Department because of the provision of free services in the Emergency Department and the inability to access General Practitioners. Differences occurred in the priority that these groups placed on these factors. Those in managerial and advanced practice roles considered access to General Practitioner services the major factor in this patient population attending the Emergency Department as evidenced by their responses to the questionnaire with 68% ranking it as ‘very important’. Registered and enrolled nurses responses to the questionnaire determined that this group consider patients make their decision to attend the Emergency Department based on financial reasons since the service and adjunct therapies are free with a minimum of 82% of responses ranking it as ‘very important’ for those questions.

When ‘very important’ responses were considered alone, consistency was evident between the various positions emergency nurses held. Emergency nursing staff clearly felt strongly about particular reasons they thought possible primary care patients attend an Emergency Department. This is evidenced by the managerial and

advanced practice group and the registered and enrolled nurse group having only one or two questions where greater than 66% of nursing staff agreed on the importance of the reason.

When 'moderately important' reasons were added to the responses, consensus remained among the two groups of emergency nurses, with a number of other reasons being considered by the nurses as reasons that possible primary care patients come to an Emergency Department. For the managerial and advanced practice group of emergency nurses, these additional reasons focused on perceived urgency by the patient, free and centralised service delivery and after hours access to care, while the registered and enrolled emergency nurses had a broader range of reasons that particularly centred on clinical considerations such as urgency, complexity and better treatment, as well as access to General Practitioner services, and after hours access to care.

When the Chi Square data were examined, they showed that the registered and enrolled nurse group held a much higher value of free service delivery than did the group of managerial and advanced practice emergency nurses. The Chi Square test also indicated that those emergency nurses in managerial and advanced practice roles did not think that the ease of attending an Emergency Department rather than a General Practitioner surgery or Medical Centre influenced possible primary care patients in making their decision to come to the Emergency Department. Registered and enrolled nurses however placed a level of importance on this reason and so had significantly difference in responses to the managerial and advanced practice emergency nurse group.

Generally speaking, the most common reasons identified by emergency nurses, irrespective of position held, that possible primary care patients come to an Emergency Department for reasons associated with cost of service delivery (when 'very important' and 'moderately important' reasons are considered). Interestingly though when positions were considered, the emergency nurses holding more senior roles in management and advanced practice did not clearly identify any reason overtly, other than the inability to access a General Practitioner (which only received 68% consensus in responses). Although central and free service delivery was highly

rated when 'very important' and 'moderately important' reasons were combined, this group of nurses seemed not to consider it solely as the key reason for possible primary care patients choosing to attend an Emergency Department for care.

## **Part 4: Data comparing nursing staff level of experience in years within Emergency Departments**

The fourth factor to be analysed was the level of experience held by nursing staff in the five Emergency Departments. The analysis sought to determine whether different levels of experience (measured by years of working in an Emergency Department) had any influence on the nursing staff's responses as to why they thought possible primary care patients attended an Emergency Department for treatment. The breakdown of experience was as follows: less than five years experience; five to ten years experience; and greater than ten years experience. All years of experience were determined by time spent working in an Emergency Department. This grouping logically divides into low, medium and high levels of experience in emergency nursing. This grouping also ensured sufficient numbers for reliable analysis when the Chi Square test was applied to the data.

This section will follow the same pattern as the previous two sections already reported.

### **Similarities and differences between responses of nursing staff with varying levels of experience (less than 5 years, 5-10 years, greater than 10 years experience)**

#### **Ranking of responses**

- The following table, Table 9, presents the 'very important' reasons identified by nurses of varying levels of experience under the headings of: nurses with less than five years of emergency nursing experience, nurses with five to ten years of emergency nursing experience, and nurses with greater than ten years of emergency nursing.

- 

As previously stated, a response rate of over 66% of respondents saying an item was a 'very important' reason was judged by the researcher as 'significant'.



▪ **Table 9: Top 5 ranking of ‘very important’ reasons as indicated by nurses with various levels of emergency nursing experience**

	<b>&lt;5 years (n=28)</b>	<b>5-&lt;10 years (n=28)</b>	<b>10+ years (n=37)</b>
▪ <b>Q.12 No charge to see a doctor at the ED</b>	<b>1</b> 93%	<b>1</b> 79%	2 65%
▪ <b>Q.13 No charge for X-rays or medicine at the ED</b>	<b>1</b> 93%	<b>2</b> 75%	<b>1</b> 68%
▪ <b>Q.8 Not able to get in as a patient at a GP surgery as the books are closed</b>	3 64%	<b>3</b> 71%	3 49%
▪ <b>Q.7 See doctor and have all tests and x-rays in same place</b>	4 61%	4 61%	4 43%
▪ <b>Q.1 Health problem urgent</b>	5 50%	7 39%	6 30%
▪ <b>Q.9 Not happy with wait to get appointment with GP</b>	5 50%	4 61%	5 32%

This table demonstrates that there was a high level of consistency amongst nursing staff regarding why they felt primary care patients attend Emergency Departments, regardless of how much emergency nursing experience they had. It does so because the top 5 responses for each sector were confined to only 6 items.

Consistency between nurses of varying levels of experience is achieved only in question 13 (no charge for tests, x-rays or medicine at the Emergency Department) where a minimum of 68% of nursing staff indicated the question to be a ‘very important’ reason they thought possible primary care patients attend an Emergency Department rather than a General Practitioner or Medical Centre. It could be argued that this consistency also occurred in question 12 (no charge to see a doctor) since

65% of the nurses with more than ten years emergency nursing experience rated this question as 'very important'.

Table 9 therefore clearly shows that these emergency nurses believed possible primary care patients come to an Emergency Department because they want free service and adjuncts to treatment such as x-rays and medication. This is evident from the minimum response rate of 65% of nursing staff indicating these two questions to be 'very important' reasons they thought possible primary care patients attend an Emergency Department rather than a General Practitioner or Medical Centre. So, regardless of how long a nurse has worked in an Emergency Department, this data suggests that they considered possible primary care patients come to an Emergency Department for care because it is free.

However, Table 9 shows that differences did occur. This is particularly observed through the percentage of responses between the groups. All groups ranked questions 12 (no charge to see a doctor) and 13 (no charge for tests, x-rays or medicine) as the top two reasons they thought possible primary care patients presented to an Emergency Department rather than a General Practitioner or Medical Centre. The nurses with the least experience (less than five years) had overwhelming agreement that these reasons were 'very important' (93% for both questions). The nurses with moderate levels of emergency nursing experience (five to ten years) were very high in agreement, but far less so than the more junior emergency nurses (79% and 75% for questions 12 and 13 respectively). The most experienced emergency nurses (more than ten years emergency nursing experience) agreed these questions were the most likely reasons possible primary care patients present to an Emergency Department but the responses were considerably lower than the other groups (65% for question 12 and 68% for question 13).

Differences also occurred in question 8 concerning patients being unable to get into their General Practitioner due to books being closed. The nurses with five to ten years emergency nursing experience ranked this highly (71% of responses). The nursing staff from the other two groups of experience considered this reason to hold importance with both groups ranking it third in importance. However, the corresponding percentages of responses by these two groups were only 64% of

nurses with less than five years of emergency nursing experience and 49% of nurses with greater than ten years of emergency nursing experience who determined this question to be 'very important'.

Therefore what is deemed likely through this ranked data is that nurses with more experience working in an Emergency Department have less agreement about reasons that possible primary care patients attend an Emergency Department for care in preference to a General Practitioner or Medical Centre, indicated by the one question ranked with a high level of importance (question 13 – 68%). However, it may be that more experience working in an Emergency Department makes the emergency nurse more understanding of patients' motivation for attending or perhaps less judgemental.

The overwhelming response again was that nurses working in Emergency Departments with any level of emergency nursing experience consider possible primary care patients come to the Emergency Department since it offers free treatment and services. The associated percentages indicate that nurses with more experience tend to be less definite in their responses.

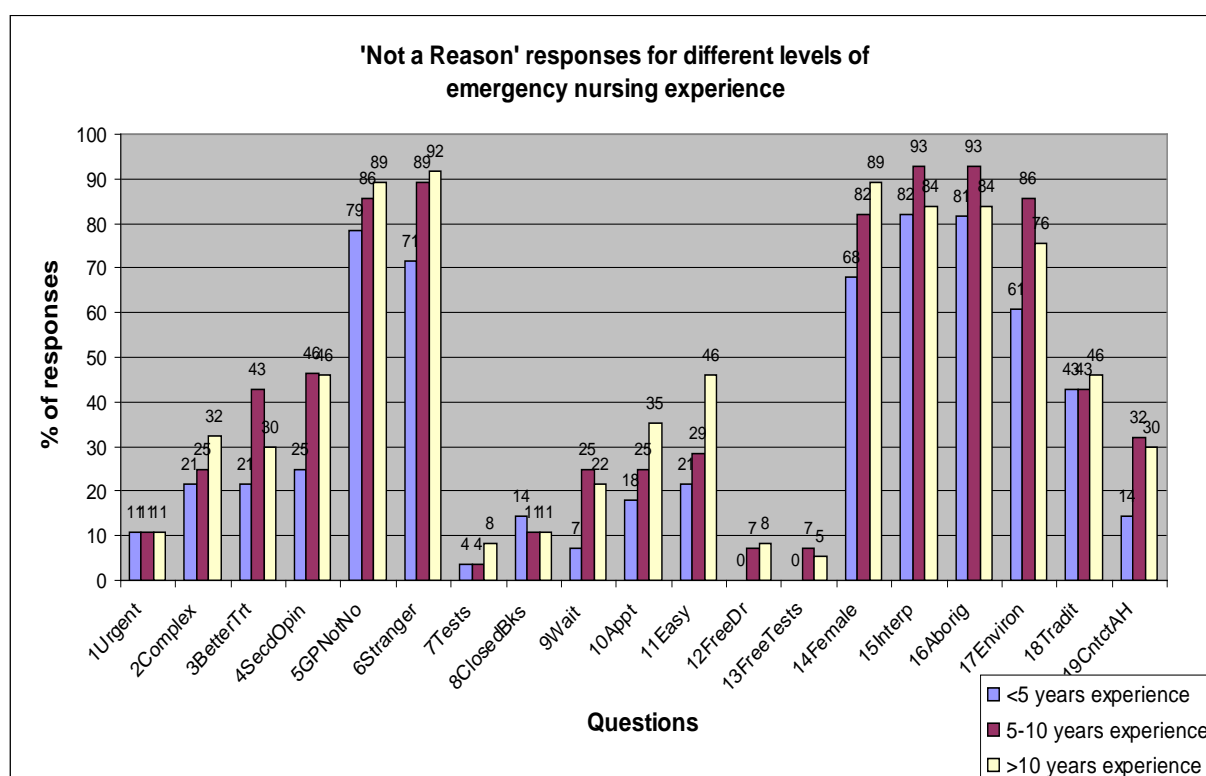
From looking at this data it is therefore possible that emergency nurses with greater than 10 years experience do not deem access to General Practitioner services for possible primary care patients a major concern and hence a reason for those patients to come to the Emergency Department. This is indicated by 32% of this group of nursing responses noting questions 8 (not able to get in as a patient at a General Practitioner surgery as the books are closed) and 49% of the responses noting question 9 (not happy with the time to wait to get an appointment with a General Practitioner) as 'very important' reasons for possible primary care patients coming to the Emergency Department. Despite ranking as numbers 4 and 5, the consensus of agreement was poor. The other two groups of nurses with less experience ranked these questions similarly, but the consensus was greater, with 50% and 71% agreeing on the importance.

These trends suggested differences and so a chi square test was performed to test for significance of difference. The results of the Chi Square test are outlined later in this section of the Findings chapter.

### **Comparison of various levels of experience by emergency nurses 'not a reason' responses**

Having looked at emergency nursing staff responses regarding various levels of importance, the responses those nurses with different levels of experience deemed 'not a reason' for possible primary care patients choosing to present to an Emergency Department were examined. The results are below in Figure 13. Figure 13 is represented as a bar graph where nursing responses with less than 5 years emergency nursing experience form the first column, nursing responses with 5-10 years emergency nursing experience form the second column, and nursing responses with greater than 10 years emergency nursing experience form the third column.

▪ **Figure 13 Percentage of ‘not a reason’ responses for all questions within the questionnaire for the different levels of experience**



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The results show consensus amongst nursing staff in what they considered to be ‘not a reason’ that possible primary care patients choose to present to an Emergency Department for care, irrespective of how much emergency nursing experience they had. The agreement occurred in three questions relating to anonymity (questions 5, 6 and 17) – question 5 (did not want my General Practitioner to know about my health problem); question 6 (prefer to talk to a doctor I don’t know); and question 17 (prefer the Emergency Department environment to a General Practitioner surgery or Medical Centre). The agreement also occurred in three questions describing additional services the patient may want that are not available in the general practice arena (questions 14, 15 and 16) – question 14 (wanted to see a female doctor and thought could at the Emergency Department), question 15 (wanted to see a doctor or interpreter who speaks my language) and question 16 (wanted to be able to see Aboriginal health staff if needed to). This series of responses (‘not a reason’) indicate a great level of consistency across emergency nurses with all levels of experience.

These results are identical to those previously reported for nurses working in different levels of departments (metropolitan, regional or rural) and for those nurses holding different positions (RN/EN or managerial/advanced practice).

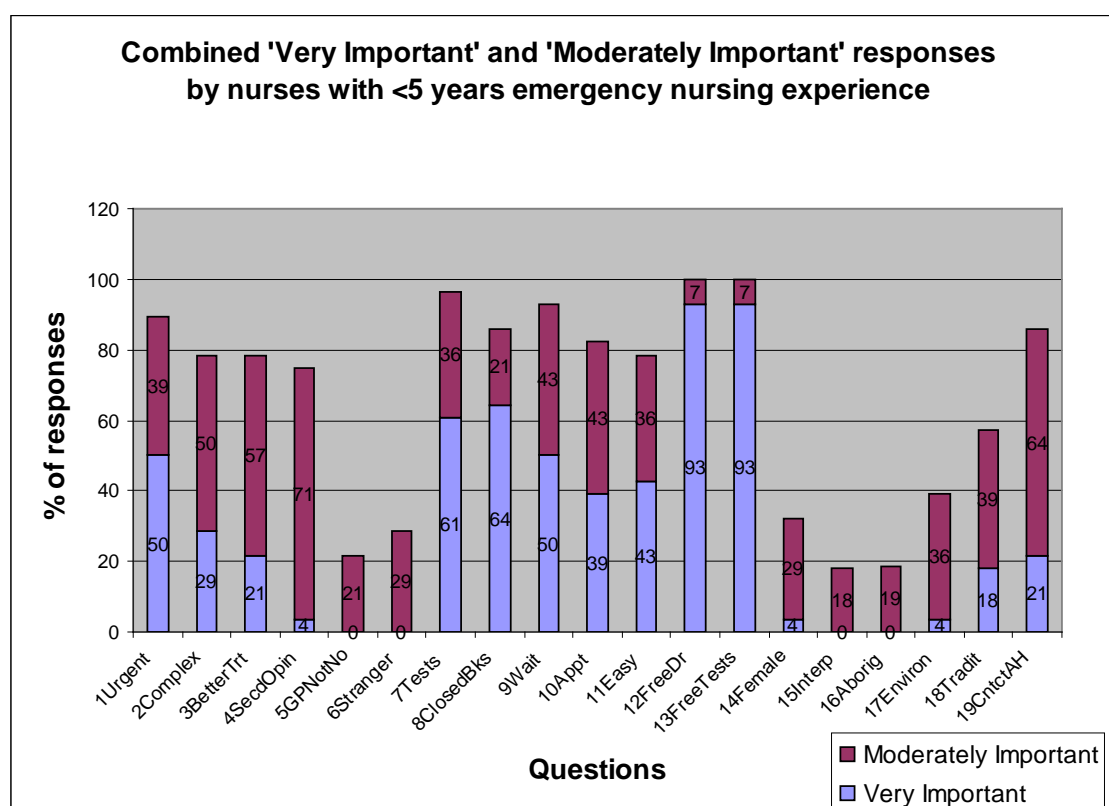
### **‘Very important’ and ‘moderately important’ combined responses by nurses of varying levels of experience**

Table 9 identified the ‘very important’ reasons recorded by nursing staff with the three levels of experience working in Emergency Departments. The researcher wanted to determine whether these reasons remained consistent when ‘moderately important’ reasons were pooled with ‘very important’ reasons (indicating some form of importance) for the groups, that is, less than 5 years experience, 5-10 years experience and greater than 10 years experience working in Emergency Departments. The results of these combined ‘very important’ and ‘moderately important’ responses are seen in Figures 14, 15 and 16.

### **Emergency nurses with less than five years experience combined ‘very important’ and ‘moderately important’ responses**

To begin with, combined ‘moderately important’ and ‘very important’ responses to the questionnaire by nurses with less than five years experience working in Emergency Departments are examined. Figure 14 presents data in the form of a stacked column graph where the contribution of each level of importance (‘very important’ and ‘moderately important’) is compared to the total across both categories.

- **Figure 14: Nurses with less than five years emergency nursing experience combined 'very important' and 'moderately important' responses to questions on the questionnaire**



As previously identified, a response rate of over 66% of respondents indicating an item held some level of importance was judged by the researcher as 'significant'. Using this number, Figure 14 demonstrates which questions emergency nurses with less than five years experience rated as having some level of importance in what they consider to be reasons that possible primary care patients choose to attend an Emergency Department. When these less experienced emergency nurses 'moderately important' reasons were added to the 'very important' reasons they thought possible primary care patients may attend an Emergency Department, it is seen that a much wider scope of reasons emerge than when 'very important' reasons alone were examined.

Figure 14 shows some considerable differences in responses when 'moderately important' answers are combined with 'very important' responses, moving from only two questions in the 'very important' responses to an additional ten questions that were considered important (when a response rate of 66% is taken as meaningful).

Previously in Table 9 it was identified that emergency nurses with less than five years experience considered the most important reasons possible primary care patients presented to the Emergency Department were due to cost, that is, free service provision that the Emergency Department offers (with questions 12 and 13 having greater than 66% of responses). Figure 14 above makes it is clear that in addition to those reasons, emergency nurses with less than five years experience consider other important reasons that possible primary care patients come to an Emergency Department to include reasons of perceived urgency or complexity by the patient (questions 1 and 2, 89% and 79% of combined responses); perceived better service delivery (questions 3 and 4, 78% and 75% of combined responses); ease for the patient in service provision (questions 7 and 11, 97% and 79% of combined responses); and other questions pertaining to access to General Practitioner services (including after hours access) (questions 8, 9, 10, 11 and 19, 85%, 93%, 82%, 79% and 85% of combined responses).

The broad array of reasons indicated by this group of emergency nurses with less than five years experience seems to point out that they did not have clear reasons they viewed possible primary care patients choosing an Emergency Department for treatment rather than a General Practitioner or Medical Centre once the issues of cost were set aside.

By combining 'very important' and 'moderately important' responses for this group of nurses with less than five years emergency nursing experience, no distinct reasons are highlighted as important, but rather twelve out of nineteen possible reasons that possible primary care patients may attend an Emergency Department for treatment were deemed to hold importance of some degree to this group of emergency nurses.

Of particular interest when reviewing this data is the large number of 'moderately important' responses for the questions relating to the Emergency Department providing better services, shown in questions 3 and 4. These questions scored quite low when 'very important' was considered originally (21% for question 3 and 4% for question 4). Perhaps this group of nurses with less than five years experience consider the Emergency Department as a form of 'back up' service for patients who



consider that the medical assessment is better and hence the patient comes either for this service or to obtain a second opinion from a better service provider.

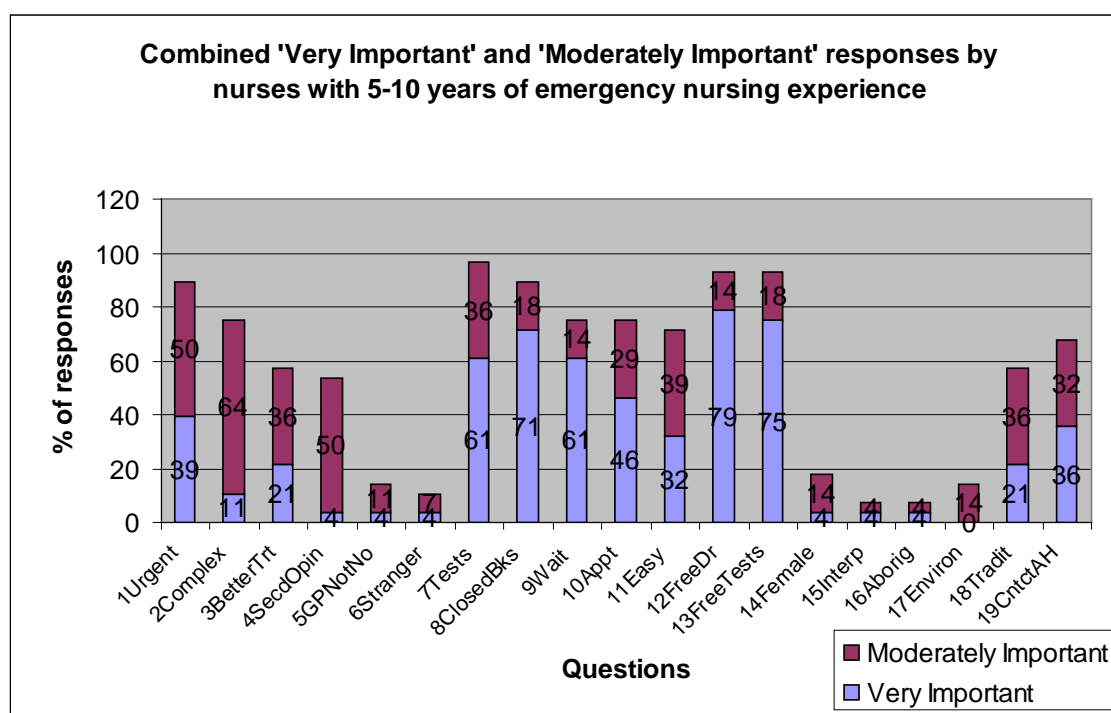
Also of note was the disparity between questions 14 and 17 when 'moderately important' was combined with the 'very important' reasons. Question 14 concerns the availability of a female doctor in the Emergency Department and question 17 refers to the environment – that the patient would prefer the Emergency Department to either a General Practitioner surgery or Medical Centre. Both these questions had 4% of responses when 'very important' was considered. These rose to 33% and 40% respectively. Although these numbers remain low, they are considerably higher than when 'very important' was looked at alone. It is unclear why these would have a greater sense of importance when 'moderately important' was added to the 'very important' responses.

Overall, the data suggests that this group of nurses are unclear about why they think possible primary care patients come to an Emergency Department apart from the free service that is available.

### **Emergency nurses with five to ten years experience combined 'very important' and 'moderately important' responses**

Figure 15 below demonstrates in a stacked column graph the combined 'very important' and 'moderately important' responses to the questionnaire by nursing staff with five to ten years of emergency nursing experience. It shows each level of importance ('very important' and 'moderately important') compared to the total across both categories.

▪ **Figure 15: Nurses with five to ten years emergency nursing experience combined 'very important' and 'moderately important' responses to questions on the questionnaire**



When 'very important' and 'moderately important' reasons were combined and examined for nursing staff with five to ten years of emergency nursing experience, strong agreement occurred in a number of questions, broadening the focus from cost (questions 12 and 13) and access to General Practitioner services (question 8) which was evident from the 'very important' responses seen earlier (Table 9).

By once again taking a figure of 66% as meaningful, the following questions scored well above this percentage showing that nurses with five to ten years of emergency nursing experience held many reasons as important to some degree when they considered why possible primary care patients came to an Emergency Department for care. The additional questions included perceived patient urgency or complexity (questions 1 and 2, 89% and 75% of combined responses), access to all services on one site (question 7, 97% of combined responses), inability to get into General Practitioner services (question 9, 75% for combined responses), not wanting to make an appointment with a General Practitioner (question 10, 75% of combined responses), ease of access to the Emergency Department (question 11, 71% of

combined responses) and not knowing how to access after hours General Practitioner services (question 19, 68% of combined responses).

By combining 'very important' and 'moderately important' responses by emergency nurses with five to ten years of experience, it becomes clear that no distinct reasons are highlighted as important anymore since ten out of nineteen potential reasons that possible primary care patients may attend an Emergency Department for treatment were deemed to hold importance of some degree to this group of regional emergency nurses. This was indicated by more than 66% of nursing staff deeming some level of importance to those ten questions.

There was no clear link between the responses by the emergency nurses with five to ten years of emergency experience. No general theme emerged when the responses holding some degree of importance about why possible primary care patients will choose to attend an Emergency Department by this group of nurses were examined. There tended to be a general rating of importance for numerous potential reasons for presentation.

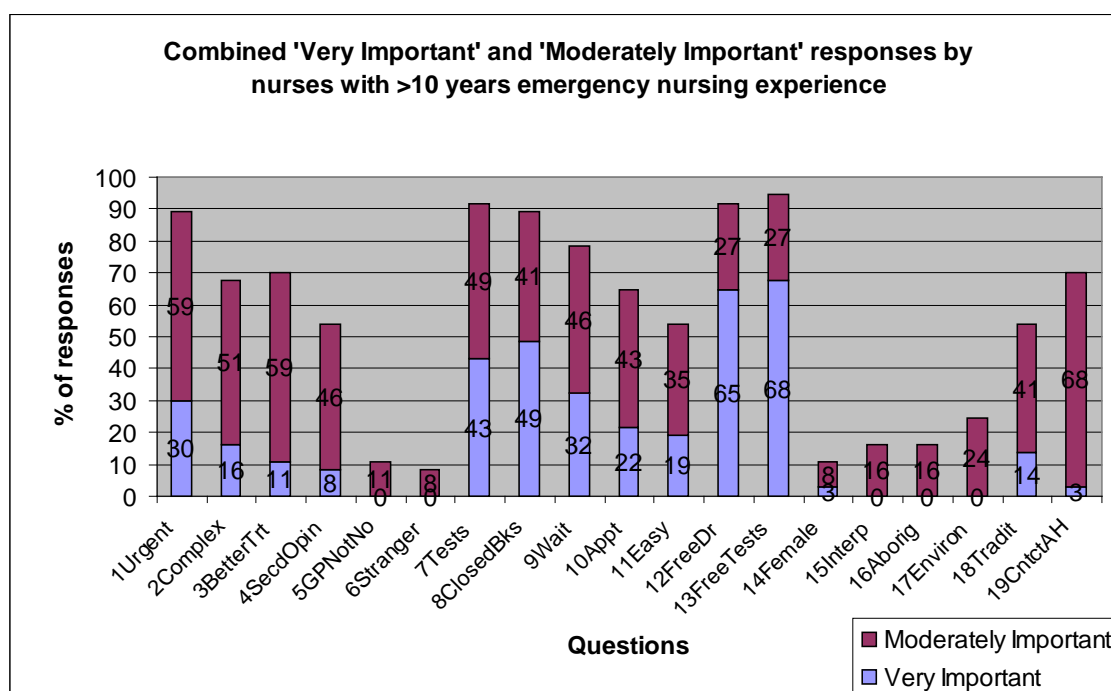
Perhaps this lack of common themes emerging suggests that nurses with five to ten years of emergency experience lack consensus in their responses. They may be clear about why they think possible primary care patients come to an Emergency Department individually, but lack a group consensus. The agreement occurs only in relation to the delivery of free service(s) and the inability to access a General Practitioner, which scored so highly in the 'very important' responses.

### **Emergency nurses with greater than ten years emergency nursing experience combined 'very important' and 'moderately important' responses**

Figure 16 below demonstrates the combined 'very important' and 'moderately important' responses by nursing staff to the questionnaire with greater than ten years of emergency nursing experience. In the stacked column graph below the contribution of each level of importance ('very important' and 'moderately important') is compared to the total across both categories.

■

▪ **Figure 16: Nurses with greater than ten years emergency nursing experience combined 'very important' and 'moderately important' responses to questions on the questionnaire**



Maintaining that 66% of responses to a question is meaningful, this figure shows that emergency nurses with greater than ten years of emergency experience believe there are other reasons that have some level of importance to possible primary care patients when making their choice to present to an Emergency Department rather than a General Practitioner or Medical Centre. This figure shows a shift from one key reason concerning free adjunct services (question 13) (as indicated in Table 7) considered 'very important' by this group of experienced emergency nurses as to why possible primary care patients come to an Emergency Department rather than a General Practitioner or Medical Centre to extend importance to an additional seven reasons, when 66% of responses is considered meaningful. By adding 'moderately important' responses to the mix it is shown that these nurses judge an additional seven reasons to hold some level of importance, when 66% of responses is considered meaningful.

The following questions scored higher than this percentage showing that emergency nurses who have worked in the environment for more than ten years believed that

possible primary care patients placed some level of importance on these reasons when deciding to seek medical assistance at an Emergency Department.

The additional questions incorporated perceived patient urgency or complexity (questions 1 and 2, 89% and 67% of combined responses), along with better treatment in the Emergency Department (question 3, 70% of combined responses), access to all services in a central place (question 7, 92% of combined responses), inability to get into General Practitioner services (questions 8 and 9, 90% and 78% for combined responses), receiving free medical service (question 12, 92% of combined responses), and not knowing how to access after hours General Practitioner services (question 19, 71% of combined responses).

These perceptions, particularly of complexity and better treatment (questions 2 and 3), are important for this group of experience emergency nurses with more than ten years experience in Emergency Departments as they should have better assessment and communication skills in which to elicit information from patients, thus making them more clear in why patients present to an Emergency Department for what might seem a relatively minor condition. This will be discussed in the next chapter.

### **Comparison of the various levels of experience in emergency nurses' responses of combined 'very important' and 'moderately important' responses**

When comparing these combined 'very important' and 'moderately important' responses between the three groups of nursing staff, there are patterns that emerge. The nurses with less than five years of emergency nursing experience identified more questions that they considered held some level of importance when 'moderately important' responses were combined with 'very important' responses, an additional twelve reasons. These were questions 1, 2, 3, 4, 7, 8, 9, 10, 11 and 19 – questions 1 and 2 (perceived urgency or complexity by the patient); questions 3 and 4 (better service quality or second opinion); question 7 (central service provision); questions 8, 9, and 19 (access to General Practitioner services); and questions 10 and 11 (convenience). These additional questions matched the other two groups of nurses with varied levels of experience. Although the more experienced groups of

nurses were more focused in their responses and hence had fewer responses where significance was identified (when using 66% as meaningful), the questions with highest agreement from the three groups were constant, again demonstrating a general consistency in responses across all groups of nursing experience.

Overall the following themes emerged by nurses with all levels of emergency nursing experience as what they considered important for possible primary care patients when choosing their health provider. Free service was paramount to all settings (as identified through the 'very important' responses) as was central services (questions 12, 13 and 7). Other themes were perceived urgency and/or complexity by the patient (questions 1 and 2), access to General Practitioner services, including after hours access (questions 8, 9 and 19).

### **Chi Square testing for significant differences in nursing responses from those having less than five years experience, five to ten years experience, or greater than ten years experience in emergency nursing**

When the similarities were examined, some differences were apparent in responses between the nurses with differing levels of emergency experience. It was decided to apply a Chi Square test to validate if these differences held any statistical significance. The following results are the product of applying the Chi Square test to the responses by nursing staff from the three groups of experience levels to test for significance of difference.

Table 10 establishes significance in responses by nursing staff determined by the years of experience they had. As stated, the grouping was logical and enabled accurate analysis to occur with adequate numbers of responses.

Although Chi Square testing was performed on all nineteen questions within the questionnaire, Table 10 will only show the results deemed significant by *p* value. Appendix 15 shows all results obtained when the Chi Square test was performed. Table 10 shows the *p* value for the three questions that showed statistical significance when the Chi Square test was applied.

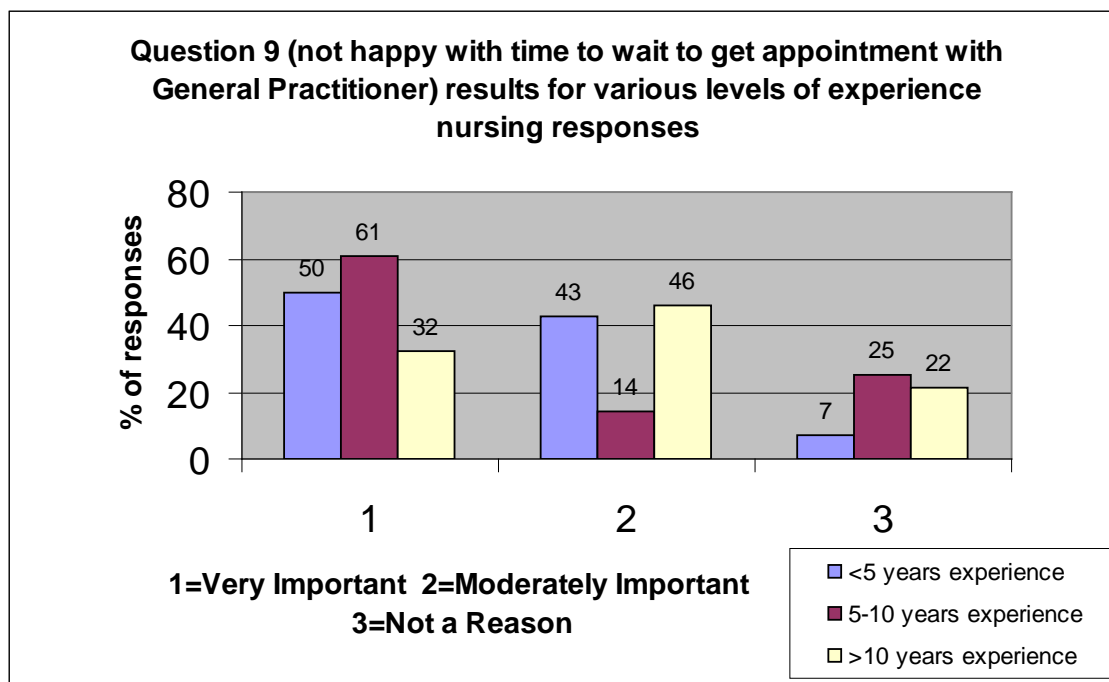
- **Table 10: Significance of difference shown statistically for responses when less than five years, five to ten years, and greater than ten years of experience in an Emergency Departments were compared**

Question Number (from questionnaire)	<i>p</i> value	Degrees of Freedom	Chi Squared value
9	0.029*	4	10.81
19	0.003***	4	15.90

- \* is equivalent to 0.05; and \*\*\* is equivalent to 0.001.
- Since significant *p* values occurred in the above questions (9 and 19), this showed key differences in responses between emergency nurses with various levels of experience. To further explore these differences, the two questions where significance was highlighted are graphed below to draw attention to where the variance in results occurred (Figures 17 and 18).

Figure 17 presents a bar graph indicating the percentage of responses to question 9 (not happy with the time to wait to get an appointment with a General Practitioner) by nursing staff from the three groups of experience levels. It is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

- **Figure 17: Question 9 (not happy with wait to get appointment with General Practitioner) results for responses of less than five years experience, five to ten years experience, and greater than ten years experience**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - <5 years emergency nursing experience = 50%;
  - 5-10 years emergency nursing experience = 61%;
  - >10 years emergency nursing experience = 32%
- Moderately important responses
  - <5 years emergency nursing experience = 43%;
  - 5-10 years emergency nursing experience = 14%;
  - >10 years emergency nursing experience = 46%
- Not a reason responses
  - <5 years emergency nursing experience = 7%;
  - 5-10 years emergency nursing experience = 25%;
  - >10 years emergency nursing experience = 22%

It is evident from figure 17 that nurses with more than ten years of emergency nursing experience did not consider question 9 (not happy with wait to get appointment with General Practitioner) a 'very important' reason for possible primary care patients choosing to come to an Emergency Department for treatment rather than a General Practitioner or Medical Centre. Nurses with five to ten years of emergency nursing experience did not consider question 9 was a 'moderately



important' reason for possible primary care patients coming to an Emergency Department for care, but held high importance. On the other hand, emergency nurses with less than five years experience considered question 9 to hold almost equal levels of importance in the 'very important' and 'moderately important' categories of response, demonstrated by the response rates for these two potential responses.



- Figure 17 demonstrates that significance for question 9 (not happy with the time to wait for an appointment with a General Practitioner) lies with the moderately experienced nurses. Fourteen percent (14%) of all nurses with five to ten years experience rated this question as a 'moderately important' reason for possible primary care patients coming to an Emergency Department rather than another service ( $p < 0.05$ ), compared to 43% for nurses with less than five years emergency nursing experience and 46% for nurses holding more than ten years emergency nursing experience.

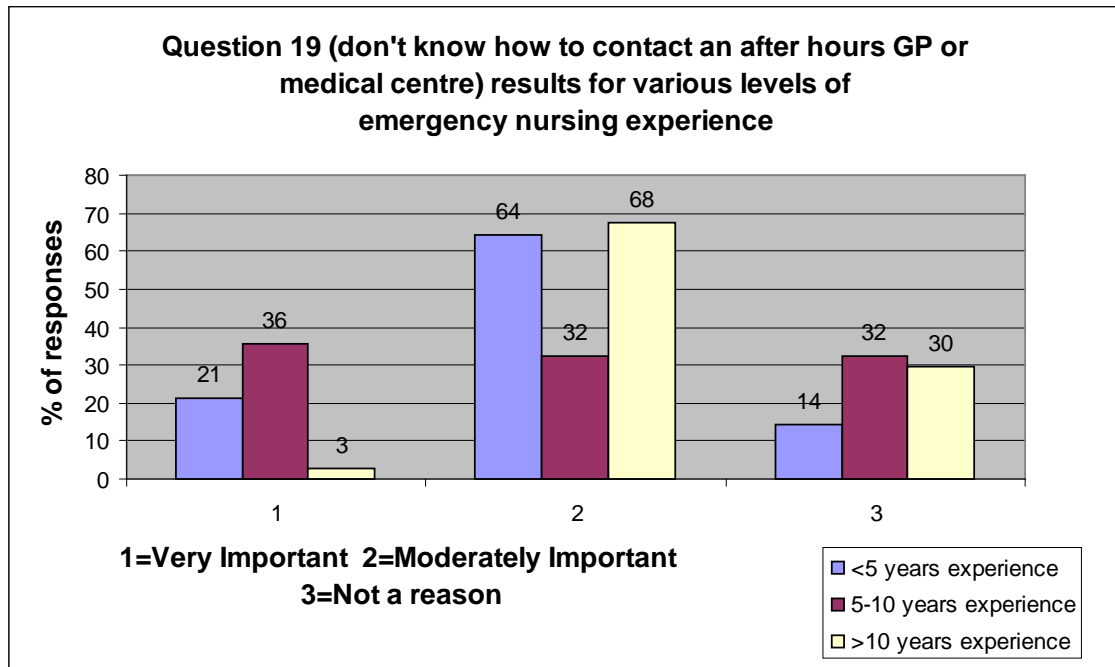


- Significance was also demonstrated in the 'very important' responses to question 9. Only 32% of the most experienced nurses agreed this question was 'very important' to possible primary care patients choosing to come to an Emergency Department, compared with 50% of nurses holding <5 years emergency nursing experience and 61% of nurses with 5-10 years emergency nursing experience.

Therefore it is possible that nurses with less than ten years of emergency nursing experience consider possible primary care patients are unable to get timely appointments with General Practitioners, and hence come to the Emergency Department. It appears that nurses with greater than ten years of emergency nursing experience consider the inability to access a General Practitioner holds some level of importance for possible primary care patients in making their decision to present to an Emergency Department, but is not a key reason. This could suggest that nurses with more experience in Emergency Departments are more cynical in their opinion of why possible primary care patients come to an Emergency Department than less experienced nurses, believing it is not due to lack of access to General Practitioner services, but remains with cost.

The second question where significance was demonstrated through Chi Square testing was question 19 (don't know how to contact an after hours General Practitioner or Medical Centre). The following bar graph (Figure 18) presents where variance in responses by nurses occurred for this question between the three levels of experience in nursing. It is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

- **Figure 18: Question 19 (don't know how to contact an after hours General Practitioner or Medical Centre) results for responses of less than five years emergency nursing experience, five to ten years emergency nursing experience, and greater than ten years emergency nursing experience**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - <5 years emergency nursing experience = 21%;
  - 5-10 years emergency nursing experience = 36%;
  - >10 years emergency nursing experience = 3%
- Moderately important responses
  - <5 years emergency nursing experience = 64%;
  - 5-10 years emergency nursing experience = 32%;
  - >10 years emergency nursing experience = 68%
- Not a reason responses
  - <5 years emergency nursing experience = 14%;
  - 5-10 years emergency nursing experience = 32%;
  - >10 years emergency nursing experience = 30%

It is evident from Figure 18 that the nurses with greater than ten years emergency nursing experience judged that possible primary care patients did not consider question 19 (do not know how to access after hours General Practitioner services) to

be a 'very important' reason for possible primary care patients choosing to come to an Emergency Department for treatment rather than a General Practitioner or Medical Centre compared to the nurses with ten or less years emergency nursing experience. Nurses with greater than ten years of experience and nurses with less than five years emergency experience believed this question held moderate levels of importance for patients when making a decision to come to the Emergency Department (indicated by 68% and 64% of responses respectively). Nurses with five to ten years of experience had relatively equal numbers of responses in all three categories.

- Figure 18 shows that significant difference for responses to question 19 (do not know how to access after hours General Practitioner services) occurs in the group of nurses with greater than ten years experience. Three percent (3%) of all nurses in this group rated this question as a 'very important' reason for possible primary care patients coming to an Emergency Department compared to 21% for nurses with less than five years experience and 36% of nurses with five to ten years experience ( $p<0.001$ ).

It may therefore be that nurses with significant experience working in Emergency Departments (greater than ten years) believe that possible primary care patients have the knowledge to access after hours General Practitioner services but choose to present to an Emergency Department anyway. This may be due to the free provision of adjunct services such as medication and x-ray which was rated highest by this group of nurses as being important for possible primary care patients in making a decision to come to the Emergency Department for treatment.

Question 19 (do not know how to access after hours General Practitioner services) concerns after hours access to General Practitioner services. This could be a reason why it stands alone in significance of difference from the other questions concerning General Practitioner access (questions 8, 9, 10, and 11).

## **Summary**

Two questions demonstrated significant differences among emergency nurses with experience of less than five years, five to ten years and greater than ten years in their perceptions of why possible primary care patients choose to come to an Emergency Department. These were questions 9 (not happy with the time to wait to get an appointment with a General Practitioner) and question 19 (do not know how to access after hours General Practitioner services). Both questions are related to General Practitioner services, however, question 9 concerns the inability to access timely General Practitioner care and question 19 is about lack of knowledge of after hours access to General Practitioner services. So it would seem that the two questions where significance was determined in relation to nurses' level of emergency nursing experience are not connected. It is unclear why question 9 showed significance yet no other question pertaining to General Practitioner access presented any data indicating significance. Neither of these questions highlighted as demonstrating significant difference using the Chi Square test correlate with the rankings identified earlier. So it is unclear whether the perception of decreasing judgement towards possible primary care patients with greater Emergency Department experience is actually true or just incidental findings.

## **Summary and Conclusion of comparison of nurses' responses with different levels of emergency nursing experience**

In summary then, there is a great deal of agreement between the three groups of emergency nurses with varying levels of experience in their responses as to why they consider possible primary care patients attend an Emergency Department for treatment rather than a General Practitioner or Medical Centre. All agreed that they perceived that cost is the main factor that possible primary care patient's consider when making their decisions to attend an Emergency Department for care.

When 'very important' responses were considered alone, consistency was evident between the three groups of nursing staff with varied clinical experience. There was consistency, irrespective of the level of experience the nurse had in Emergency Departments, in responses to particular questions they thought possible primary care

patients attend an Emergency Department. This is evidenced by the three groups having very few questions where greater than 66% of nursing staff agree on the importance of the question when 'very important' responses were considered. Some differences occurred in the group of emergency nurses with five to ten years of experience where these nursing staff considered (in addition to cost) that lack of access to General Practitioner services was a considerable factor in this possible primary care patient population attending the Emergency Department with 71% of responses indicating this reason to be 'very important'.

When 'moderately important' reasons were added to the responses, consensus remained among the emergency nurses irrespective of their level of emergency nursing experience, with a number of other reasons being considered by the nurses as reasons that possible primary care patients come to an Emergency Department. For those nurses with less than five years experience, these additional reasons were not particularly themed and included a broad range of reasons that mostly centred on clinical considerations such as urgency, complexity and better treatment, as well as access to General Practitioner services (including after hours access). The nurses with five to ten years experience and with greater than ten years experience had fewer additional reasons than the less experienced nurses (less than five years experience). These reasons incorporated clinical considerations such as urgency and complexity and on primary care access, including after hours access.

When the Chi Square data was examined, it indicated that the emergency nurses with five to ten years experience did not agree with the other two groups that it was 'moderately important' to possible primary care patients coming to an Emergency Department that they were unable to get a timely appointment with their General Practitioner. This group of five to ten year experienced nurses thought this was a 'very important' reason for possible primary care patients choosing the Emergency Department with 61% of responses indicating this.

The Chi Square test also suggested that those nurses with the greatest experience (greater than ten years) did not consider after hours access to General Practitioner services a 'very important' factor in why possible primary care patients choose to come to an Emergency Department – with very low numbers of responses indicating it to be a 'very important' reason. Emergency nurses with less than five years

experience or with five to ten years experience did not have overwhelming agreement that this reason was 'very important', but the response rates were significantly higher than for the greater than ten years experience nursing group.

The widely held view that emerged from the comparison between the three levels of experience in emergency nursing was that those emergency nurses who responded to the questionnaire considered possible primary care patients come to an Emergency Department because they want an all inclusive free service and therefore came to an Emergency Department rather than a General Practitioner or Medical Centre.

## **Part 5: Data comparing nursing staff age and gender**

Two more factors were analysed in terms of demographical data of nursing staff working in the Emergency Departments within the former Illawarra Health Service. These were the age and the gender of nursing staff working in the Emergency Departments. For each of these demographical factors, grouping of 'top 5' reasons occurred as did cross tabulation and Chi Square testing. The same format was followed as for the first three sections already reported, but age and gender were addressed.

No new concepts were brought to light from these two biographical data of age and gender. All supporting material including graphs and tables are in the appendices numbered throughout this section.

### **Section A: Age**

The analysis for age sought to determine whether different age groups had any influence on the nursing staff's responses as to why they thought possible primary care patients attended an Emergency Department for treatment. For the purpose of analysis, the following age categories were used: less than forty years of age, forty to forty nine years of age, and those aged fifty plus. This distribution of ages appears skewed to the older population, however, for the greatest equity across categories this was essential. At the time of collection of questionnaires, the largest numbers of nurses working in Emergency Departments in the former Illawarra Health Service were aged 40-49 (35/93). Hence the division of ages was based on maximum numbers within each group to ensure a reliable comparison could be made between the groups.

### **Section B: Gender**

The analysis for gender was obvious in that it was performed for males and for females. Although this meant considerably higher numbers of females than males (73 females vs. 20 males), this was not able to be grouped in any other way. These numbers reflect the significantly higher proportion of females in the nursing profession than males. In 2006 female nurses formed 91% of the nursing workforce (Australian Bureau of Statistics 2008).



## Part 6: Data from free comments by emergency nurses

At the end of the questionnaire given to the emergency nurses was a question asking if the nurse would like to make any additional comments on why they thought primary care patients choose to come to an Emergency Department for service. Many nurses (n=59; N=93) took the opportunity to comment as seen in Table 16.

▪ **Table 16: Free comments by nursing staff concerning additional reasons they thought primary care patients choose an Emergency Department for care**

▪ Comments	▪ Nu mbers (n/59)	▪ % of responses
▪ 1. Don't want to pay above Medicare	36	61%
2. Can't get into GP	20	34%
3. Lack of medical services available after hours	11	19%
4. All services together	6	10%
5. Inappropriate referral by GP	5	8%
6. Lack education	4	7%
7. Convenience	4	7%
8. Misconception of nature of illness/injury	4	7%
9. Not enough GPs	4	7%
10. 24 hour service available	4	7%
11. On holidays	4	7%
12. Elderly require more support	2	3%
13. Aboriginal preference for ED	2	3%
14. Ambulance provides free transport	2	3%
15. Parents unsure of child's illness	2	3%
16. Social reasons	2	3%

<b>17. Second opinion</b>	2	3%
<b>18. Disregard health complaint til real problem</b>	1	2%
<b>19. Workcover sent to ED as faster service</b>	1	2%
<b>20. Schools send to ED rather than GP</b>	1	2%
<b>21. Need dental care</b>	1	2%
<b>22. Anonymous factor</b>	1	2%

Although many nurses took the opportunity to comment, in most cases they only re-stated the reasons already identified by the questionnaire. The most agreement in comments were about not paying above the Medicare levy; being unable to get into a General Practitioner; lack of after hour's services; inappropriate referrals by General Practitioners; and having all services together. These were also the most rated responses within the questionnaire, as previously looked at in Parts 2 to 5. Therefore the opportunity for nursing staff to provide comments did not offer any new information to what was gathered through the questionnaire.

## **Part 7: Data comparing emergency nurses responses with primary care patient responses**

A brief comparison of nursing and patient responses to the questionnaire will now follow. As previously stated, the same questionnaire was used for both groups of respondents – patients in the Parent Study and nurses in the study being reported here. The patients that fitted the criteria of primary care completed the questionnaire identifying the reasons they chose to attend the Emergency Department for care. The nurses responding to the questionnaire were asked why they considered possible primary care patients choose to come to an Emergency Department rather than a General Practitioner or Medical Centre based on the questions within the questionnaire as well as the opportunity to comment if additional reasons were not covered in the questionnaire. By performing this comparison, distinct differences in responses to the questions in the questionnaire between possible primary care patients and those nurses working in the Emergency Departments caring for this population are demonstrated.

To follow the pattern established in the nursing staff analysis, the ‘top 5’ responses by patients will be outlined along with the ‘top 5’ responses ranked by nurses. This will enable comparison of each group’s rankings. Tables 17 and 18 present the ‘top 5’ data for patient and nurse respondents who rated a question as being a ‘very important’ reason primary care patients seek care in an Emergency Department.

To ensure adequate discrimination of the data, a response rate of over 66% of respondents saying an item was a ‘very important’ reason was judged by the researcher as ‘significant’. As explained earlier, this number seemed reasonable when there were three possible responses for each question on the questionnaire, thereby loosely representing approximately 33% for each possible response. Those rankings highlighted in red relate to those cases where responses exceeded the 66% ‘very important’ level. The corresponding rank from the different group is noted next to the patient or nurses rankings. The patients ‘top 5’ responses are shown

below in Table 17. The corresponding ranking and percentage by nurses will be shown in the column next to it.

▪ **Table 17: The ‘top 5’ most highly ranked ‘very important’ reasons for all questions within the questionnaire for possible primary care patient responses**

▪	▪ <b>Pati ents</b>	▪ <b>Nur ses</b>
▪ <b>Q.1 Health problem required immediate attention and was too urgent to wait to see a GP or Medical Centre</b>	▪ <b>1</b> <b>68.0%</b>	▪ <b>6</b> 38.7%
▪ <b>Q.7 Able to see the doctor and have any tests or X-rays all done in the same place at the ED</b>	▪ <b>2</b> 51.9%	▪ <b>4</b> 53.8%
▪ <b>Q.2 Health problem was too serious or complex to see a GP or Medical Centre, including after hours</b>	▪ <b>3</b> 38.5%	▪ <b>9</b> 18.3%
▪ <b>Q.3 Feel the treatment is better at ED</b>	▪ <b>4</b> 15.4%	▪ <b>11</b> 17.2%
▪ <b>Q.9 Not happy with time to wait for appointment with GP</b>	▪ <b>5</b> 12.7%	▪ <b>5</b> 46.2%

▪  
When taking the figure suggested as meaningful by the researcher (66%), it is evident from Table 17 that only one response by possible primary care patients can be considered meaningful when using the same scale used for nurses responses, that is, where more than 66% of responses occurred to a question. That is, question one ‘My health problem required immediate attention and was too urgent to wait to see a General Practitioner or Medical Centre’, which was chosen by 67% (264/392) of patients who completed the questionnaire.

The next most highly rated response was question 7 ‘I am able to see the doctor and have any tests or X-rays all done in the same place at the Emergency Department’. This was only chosen by 52% (196/382) of respondents as ‘very important’. The number of patients agreeing on a particular question as ‘very important’ fell markedly

after this, with only 39% (146/382) of patients responding to question 2 'My health problem was too serious or complex to see a General Practitioner or Medical Centre, including after hours' as 'very important', 15% (59/384) agreement for the fourth most popular reason, 'I feel the medical treatment is better at ED', and 13% (48/382) selecting 'I am not happy with the time I have to wait to get an appointment with a GP', after which no reason was identified by more than 10% of respondents. When compared to the nursing responses, the patients rated clinical care as the priority for attending an Emergency Department, whereas the nurses did not rate this anywhere near as important.

When reasons given by patients who presented after hours were examined, they were essentially the same as those given by patients presenting at other times. 36% (39/107) of patients who presented out of normal business hours said they did not know how to contact an after hours General Practitioner service or Medical Centre and so came to the Emergency Department. Full details of patient responses have been reported elsewhere (Siminski et al 2005).

■

Table 18 below presents the 'top 5' data for nurse respondents who rated a question as being a 'very important' reason they thought primary care patients seek care in an Emergency Department. The corresponding ranking and percentages by patients will be shown in the column next to it.

■

▪ **Table 18: The most highly ranked ‘very important’ reasons for all questions within the questionnaire for all nurses responses**

▪	▪ <b>Nur ses</b>	▪ <b>Pati ents</b>
▪ <b>Q.12 No charge to see a doctor at the ED</b>	▪ <b>1</b> <b>77.4%</b>	▪ <b>12</b> <b>2.9%</b>
▪ <b>Q.13 No charge for X-rays or medicine at the ED</b>	▪ <b>1</b> <b>77.4%</b>	▪ <b>10</b> <b>3.5%</b>
▪ <b>Q.8 Not able to get in as a patient at a GP surgery as the books are closed</b>	▪ <b>3</b> <b>60.2%</b>	▪ <b>7</b> <b>7.7%</b>
▪ <b>Q.7 Able to see doctor and have all tests and x-rays in same place</b>	▪ <b>4</b> <b>53.8%</b>	▪ <b>2</b> <b>51.9%</b>
▪ <b>Q.9 Not happy with time to get an appointment with GP</b>	▪ <b>5</b> <b>46.2%</b>	▪ <b>5</b> <b>12.7%</b>

From this data it appears that nursing staff working in Emergency Departments across the former Illawarra Health Service deem free service provision the key element for possible primary care patients seeking attention in an Emergency Department rather than a General Practitioner or Medical Centre, whereas it would appear that patients do not consider this to be a reason for presentation to an Emergency Department as indicated by the very low response rate to Questions 12 and 13. A full comparison of results is listed in Appendix 17.

From Tables 17 and 18, it seems most of the ‘top 5’ ‘very important’ responses for nursing staff and patients are notably different. However, the most notable exception is Question 7 (able to see the doctor and have any tests or X-rays all done in the same place at the ED) where similar percentages of responses were attained from patients and nurses. More than 50% of nursing staff and patients responded affirmatively to this reason being ‘very important’.

Further comparison of ‘very important’ and moderately important’ responses by both patients and nurses are found in Appendix 18.

When analysing the data, it was found that the nurses who completed the questionnaire identified more reasons for possible primary care patients attending an Emergency Department than did the patients who responded to the questionnaire. An average of five reasons were identified by emergency nurses within the questionnaire as 'very important' compared with patients who identified an average of 2 'very important' reasons from the questionnaire. Of all the patients who responded, 77% (305/397) selected one, two, or three reasons only as 'very important'. This seems to indicate that patients were clear in identifying reasons for their presentation and reasons that did not play a part in making their decision to come to the Emergency Department in preference to a General Practitioner or Medical Centre. Nurses, on the other hand, were not as definite as the patients in clearly identifying key reasons for presenting to an Emergency Department for service provision.

### **Summary and Conclusion for nursing versus patient responses**

It can be seen in Tables 17 and 18 that the reasons ranked as 'very important' by patients receive a lower ranking by nurses and, similarly, the reasons ranked highest by nurses are ranked lower by patients. In particular, the two questions related to free service provision in an Emergency Department (questions 12 and 13) are ranked amongst the top five reasons why patients would attend Emergency Department for possible primary care by nurses, but very few patients report this as an important reason.

The most significant result from nursing staff was in response to questions 12 and 13 (no charge to see a doctor or for services). More than three quarters of all the nurses who responded said this was the key reason they believed possible primary care patients attend an Emergency Department. Conversely, the most significant result from the possible primary care patients was in response to question 1 (health problem required immediate attention and was too urgent to wait to see a GP or Medical Centre) with two thirds of all respondents indicating this was the chief reason for presenting to an Emergency Department in preference to other primary care facilities such as General Practitioner or Medical Centre.

It is evident from the data that emergency nurses and possible primary care patients had matching results only for Question 7 pertaining to medical service and adjunct services being central to each other. Major differences occurred in terms of cost (for service and adjunct therapies – questions 12 and 13) and access to General Practitioner services (questions 8 and 9) where emergency nurses deemed these reasons as very important for possible primary care patients making a decision about where to present for treatment. Possible primary care patients, on the other hand, determined that the urgency of their condition (question 1) warranted their presentation to an Emergency Department. This reason stood out as the key element in those patients choosing a care provider.

So it seems that nurses have very different opinions as to why possible primary care patients attend an Emergency Department for treatment rather than a General Practitioner or Medical Centre. The comparison of results of nurses and patients to the questionnaire indicates this clearly. Why this occurs needs to be explored, particularly in respect to potential clinical implications these differences may have on the care provided to this patient population in an Emergency Department.



## **Overall Summary and Conclusion of Findings Chapter**

This Findings chapter has highlighted a number of themes that emerged from the analysis of the questionnaire. In summary the findings of interest are:

- generally nurses of any demographical data considered free service provision to be the leading reason that possible primary care patients choose an Emergency Department for care
- rural nurses consider access to General Practitioners to be lacking
- nurses holding positions of advanced practice or management did not consider cost to be an overwhelming factor for possible primary care patients when choosing to come to an Emergency Department when compared with nurses working as RN or EN
- nurses and patients have polar views of why possible primary care patients come to an Emergency Department for service delivery for some things, but others are similar

With these themes in mind, the next chapter will explore and discuss why these themes have emerged and how they may possibly impact on nursing practice and attitudes towards the possible primary care patient.

## Chapter 6 – Discussion

### Introduction

This chapter will discuss the key findings from the research and look at potential reasons for these findings. It will focus on the fact that there are some interesting differences between the subgroups that were examined, but overall one theme stands out consistently with all groups – nurses working in Emergency Departments consider possible primary care patients want free service delivery.

This research study had two primary aims. These were to answer the following questions:

1. What do emergency nurses consider the reasons possible primary care patients present to Emergency Departments (and is there a difference when demographic details are analysed?); and
2. Is there a difference between emergency nurses beliefs about the reason primary care patients present to an Emergency Department and the reasons patients themselves gave for their presentations to the Emergency Department?

These aims are outlined on page 131 in the methodology chapter. This chapter will articulate how these aims were achieved in light of the research data, and then show how this fits with literature. Finally, implications for clinical practice, for policy and management, and for future research will be discussed.

To answer the first aim, outlined above, much data were collected and analysed, but one key element kept emerging despite varying demographic data, and that is, that typically emergency nurses in this study believe possible primary care patients present to an Emergency Department for free service delivery. This element will be discussed initially. Other interesting aspects of data that emerged addressing the first aim will also be discussed. These particularly focused on General Practitioner access, central service provision, interpreter services, complexity of condition and

assumption of better treatment in varying degrees according to the Emergency Department the nurse worked in, their position held within the department, and the years of experience working in an Emergency Department. These were secondary to the key finding of free service delivery, but are worth discussing in light of the intention of the research. When discussing nurses within this discussion, a broad term of 'nurses' is used. It refers to the nurses within this study at this time only and not nurses broadly.

The second aim of this research was to compare emergency nurses' beliefs about the reason(s) possible primary care patients present to an Emergency Department with the reason(s) the patients themselves gave for their presentations. The data from this research study shows that nurses and patients responses differ. This will be discussed in terms of this research and in terms of how this may impact service provision.

## **1. What do emergency nurses consider the reasons possible primary care patients present to Emergency Departments?**

### **Free service delivery**

From the findings of this research one theme kept emerging despite analysis of demographic subgroups – that nurses working in Emergency Departments in the former Illawarra Health Service typically believed that possible primary care patients choose an Emergency Department for care because it is a free service with no costs associated for any adjunct services such as x-ray or medications. This was consistently the chief reason identified by emergency nurses regardless of what department they worked in, the position they held, their years of emergency nursing experience, their age or gender. More than 66% of emergency nurses who responded to the questionnaire consistently reported they believed possible primary care patients attend an Emergency Department because it is a free service with free adjunct services available such as x-ray and medications. With up to 100% of emergency nurses within this research agreeing these were either 'very important' or

'moderately important' reasons this group of patients came to an Emergency Department, the data is overwhelming. This assumption that emergency nurses have about possible primary care patients needs to be compared with other literature to see whether it has been reported through other research in the broader international picture. If this belief is held so widely, it has significant implications for practice and policy. It would also lead to further research to determine how widespread this belief is amongst emergency nurses nationally, and perhaps internationally.

This key finding from the research that emergency nurses believe possible primary care patients choose an Emergency Department for care due to the free service available has not been reported in the literature previously. Rather, most research reviewed highlighted a general criticism of patients who present to the Emergency Department for nonurgent care, but did not mention that perhaps nurses consider that these patients come because it is free.

This research data is important as it examines Australian emergency nurses and is consistent since it used a definition of primary care patients based on a review of the literature that was clearly outlined to all nurses participating in the research questionnaire.

As was seen in Chapter 3, very little literature surrounding emergency nurses beliefs about why possible primary care patients attend an Emergency Department exists. The literature generally presents responses from health professionals working in Emergency Departments, not nurses specifically. What is portrayed in literature is that Emergency Department health professionals are often negative towards this group of primary care patients (Guttman, Nelson & Zimmerman 2001), tagging them as 'inappropriate' (Sanders 2000, p.1098) and 'minor' (Guttman, Nelson & Zimmerman 2001, p.162). Since the literature speaks broadly of health professionals' views, not nurses specifically, this identifies the research as being important as it not only targets this group of health professionals (emergency nurses), but also identifies a clear reason that was not previously cited in the literature, that is, the assumption that possible primary care patients seek treatment in an Emergency Department because it is free, rather than for reasons of perceptions of severity of their condition, or some other 'valid' concern.

When considering this point of whether a possible primary care patient is 'inappropriate', the research did not overtly address this with any specific questions. However, the questionnaire allowed for such responses to be expressed in the free comments section (part C) by asking 'Would you like to make any comments on why, in your experience, primary care patients come to the ED instead of a GP?' There were no comments that suggested this professional disapproval in the form of 'inappropriate'. Of the 59 free comments that were recorded by emergency nurses, four comments reported that this patient group have a lack of education and so choose to come to an Emergency Department for treatment. This was the closest response to 'inappropriate' that could be gleaned from the data.

Although there is no direct data in this research surrounding 'inappropriate' patient presentations, there are several sources of data within this free comments section that enable reasonable conjecture regarding this point of patients being labelled 'inappropriate' by nursing staff. When the high response to questions 12 and 13 concerning free service delivery is linked with responses to questions concerning clinical urgency and complexity, it is seen that nurses don't consider these to be of particular importance to patients when choosing to come to an Emergency Department. This could also suggest that the emergency nurses who completed the questionnaire regard possible primary care patients as 'inappropriate' since they only believe they are a population that wants to receive treatment and service gratis, and do not account for clinical urgency or complexity. Because the emergency nurses who responded to the questionnaire said these comments in the free section, it may be logical to argue that these nurses saw these patients as 'inappropriate'.

Internationally, literature frequently reports a labelling of primary care patients as 'inappropriate' by health professionals working in Emergency Departments. This association found in literature was not overt in this research from the responses to the questionnaire by the nurses that participated. Rather, the consistent responses by emergency nurses were that possible primary care patients seek free services and hence come to an Emergency Department instead of utilising another service. It could be possible that these nurses consider this group of patients as 'inappropriate' for service in an Emergency Department, but this cannot be assumed from the data.

These labels health professionals apply to possible primary care patients were found in literature to be associated with negative behaviour characterised by less sympathy, increased irritation, negativity, bias and lower motivation to help this patient population (Crouch & Dale 1994). In addition, lower health provider morale was found since they perceived these patients unnecessarily increased workloads that were deemed not relevant to the purpose of the Emergency Department services being offered (Howard et al 2005, p.430). These elements were not highlighted in this study. There was opportunity to draw attention to these in the comments section of the questionnaire; however, no nurses reported any of these reactions or responses.

The literature reviewed highlighted that health professionals working in Emergency Departments are mostly critical of patients that use the Emergency Department for non-urgent care. Health professionals throughout the literature are portrayed as having poor perceptions of possible primary care presentations coming to Emergency Departments. They are generally represented as considering primary care to be inappropriate in Emergency Departments. Some flaws are evident in the literature concerning these beliefs. Firstly, since no consistent definition of what constitutes possible primary care patients is demonstrated in the literature, the evidence of negative attitudes towards this population could not be considered reliable. Hence, health professional's negative attitudes towards this population reported in the literature cannot be viewed with any consistency. Secondly, the literature reviewed was predominantly international and so may not reflect Australian health professionals' perceptions towards possible primary care patients.

Health professionals' attitudes and perceptions of possible primary care patient presenting to Emergency Departments, often labelled non-urgent or 'inappropriate', have reportedly remained relatively negative through the literature over the years. This negative attitude could potentially be applied to this research since the overwhelming response of nurses working in Emergency Departments within the former Illawarra Health Service was that they thought patients wanted free service and based their decisions on this monetary factor chiefly. This is a possible limitation of the study, as perhaps there was no overt avenue for the emergency nurse

participants to reveal their true feelings towards this patient group to elicit whether they did think possible primary care patients were 'inappropriate' or just seeking free service.

What recommendations arise from the data and the literature about this perceived concept of possible primary care patients wanting free service delivery? When considering clinical practice, it is important to bear in mind the concept of an 'appropriate' Emergency Department presentation. As outlined through the literature review, 'appropriate' emergency presentations internationally are generally based on what health professionals deem to be 'appropriate'. Health care providers' 'professional judgement' can be very subjective concerning what is an 'appropriate' presentation. Some health professionals are more tolerant of possible primary care patients and deem that they have a right to be seen in the Emergency Department, whereas others are clearly disparaging of such presentations, seeing them as a waste of time and interfering with true workloads (Guttman, Nelson & Zimmerman 2001, p.174). This can lead to a philosophy of 'blaming the patient', with a strong bias towards determining appropriateness from a medical perspective, rather than from the perspective of patients (Fatovich 2002; Marks, Steinfert & Barnett 2003; Gill, Reese & Diamond 1996).

Given this, it is unreasonable for patients to be expected to make valid and safe decisions about where to go for treatment when there is no evidence based material outlining information relevant to patients and decisions they may make concerning treatment options.

If emergency nurses believe that these non-urgent possible primary care patients come to the Emergency Department for free service delivery, an attitude of professional disapproval is often present, shown through labelling these patients as 'inappropriate', as seen in the literature. Although this was not overt through the research's responses or comments made by the respondents to the questionnaire, this attitude could be underlying, as suggested by the lack of responses concerning clinical urgency and complexity.

Considering these factors of whether the patient is inappropriate leads one to consider the process of Emergency Department attendance for the patient. Perhaps nurses working in Emergency Departments need to understand that patients carry out a logical decision making process when choosing to come to an Emergency Department. This could suggest that hospitals need to provide appropriate services, rather than merely labelling the patients as inappropriate. In recent years within NSW, Emergency Departments have undertaken considerable change in care delivery systems. Various models of care have been directed by NSW Health so that consistent approaches to care delivery throughout NSW have been implemented, particularly in terms of low acuity patient presentations. In 2005, Fast Track areas were set aside for patients who should be able to be seen, treated and discharged within 2 hours (NSW Health 2006). The gradual introduction of Nurse Practitioners specialising in emergency care to the Fast Track areas of Emergency Departments since 2005 have aided in more efficient delivery of care to patients requiring less acute services (Jennings et al 2008). This has enabled medical officers to be in the acute areas treating higher acuity patients requiring a more complex level of care and treatment. As Murphy (1998) points out, Emergency Departments need to consider making changes so they are appropriate for patients, rather than trying to make patients appropriate for the service deemed important in an Emergency Department. This has been a positive step for Emergency Departments in ensuring the possible primary care patient is assessed and treated in an appropriate timeframe, and not made to wait for long periods of time because they are not 'acute' and therefore important.

Emergency nurses assuming possible primary care patients attend an Emergency Department for free service as the key driving factor has implications for policy makers and management positions behind the implementation of such policy. In recent years, significant attention has been given to what an Emergency Department's function is. This has been predominantly promoted through media campaigns. Media campaigns such as 'Save Emergency Departments for Emergencies' (NSW Health 2008) have been prolifically advertised on television in the past few years. Emergency Department waiting rooms have numbers of posters reiterating this message of coming to an Emergency Department for 'valid' emergency situations and not for such presentations as flu. In light of the results of



this study, these campaigns will not be effective whilst patients continue to come to an Emergency Department for reasons they consider to be valid and important – as seen in the responses by the patients who completed the questionnaire in the Parent Study (see Chapter 2).

The concern with this advertising material is that patients may begin to be unsure of what is an 'emergency' and therefore not come to the Emergency Department unless it is a medical emergency. This could mean delays in treatment and hence longer recovery and rehabilitation for illnesses and injuries. Also of concern is the message being promoted to the public that importance of a condition is based on severity. Whilst this may be true, this message devalues the importance of the illness or injury to the individual and the impact it may be having on them. It may also promote a sense of guilt in patients as they are possibly made to feel they are wasting Emergency Department staff time on their minor ailment or injury. This emotional response can have clinical implications. Possible primary care patients may not seek care at an Emergency Department, but may not be able to see a General Practitioner within a few days. This could mean worsening of symptoms and so when treatment is provided the condition is significantly worse than when it originally became a concern to the patient.

Hence, policy makers need to be careful about the message intended by campaigns and how it may be received by the community. Policy needs to reflect that emergency nurses are professionals who have a duty to care for all patients who present to an Emergency Department for service, irrespective of any personal feelings.

Future research based on this research has the scope to look at deeper levels of how emergency nurses perceptions of this possible primary care patient population can influence care. A closer look into attitudes, particularly whether emergency nurses see this group of patients as inappropriate would be valuable. This would be especially important in ascertaining nurses' attitudes and perceptions and comparing with other health professionals' attitudes which have been reported in literature and have been seen to be relatively negative over the years.

It would be helpful to undertake more research to determine whether emergency nurses believe free service delivery means an 'inappropriate' presentation. It would also be beneficial to ascertain what constitutes 'appropriate' in terms of Emergency Department presentations. This would then enable valid comparisons to be made between Emergency Departments.

Another feature that warrants more research is to examine the belief shown through this research by nurses (that possible primary care patients want free service) with demonstrated behaviours in the workplace. Literature found that negative attitudes towards primary care patients was often exhibited by negative behaviours such as less sympathy, increased irritation, bias, lower motivation to help this patient population (Crouch & Dale 1994, pp.289, 295), poor communication (Guttman, Nelson & Zimmerman 2001, p.173), and lower morale generally due to a perceived greater (and unnecessary) workload (Howard et al 2005, p.430). This would be an interesting extension of the work performed here that would move the research from beliefs to attitudes and actions.

The data from this study outlined that emergency nurses consider patients make the choice to come to the Emergency Department because it is a free service. Literature places this group of patients in an 'inappropriate' category, based on medical opinion, but does not talk about whether 'inappropriate' is linked to free service delivery. This highlights the importance of this research, but also opens up a number of other avenues to extend the research and look specifically at emergency nurses attitudes that may be behind such beliefs.

This aspect of free service delivery was emphasised by all emergency nurses as discussed above. When the nursing responses to the questionnaire were analysed by demographics (location of Emergency Department, position held within the unit, years of emergency nursing experience, age and gender), some differences were found that will now be discussed.

## **Nursing responses differ according to metropolitan, regional or rural location**

### **General Practitioner access**

The first key point for discussion is the variation in results by those nurses working in a rural Emergency Department when compared to those nurses working in a metropolitan or regional Emergency Department. Although all nurses working in any of the metropolitan, regional or rural Emergency Departments considered cost as the main factor that possible primary care patient's consider when making their decisions to attend an Emergency Department for care, some differences occurred in the rural departments where nursing staff seemed to believe (in addition to cost) that lack of access to General Practitioner services in rural areas was a major factor in this possible primary care patient population attending the Emergency Department.

This reason is feasible when the services available in the rural area are examined. At the time of the research being undertaken there were no Medical Centres in operation in the rural area, and very few doctors' bulk billed patients. These situations are supported by The Commonwealth Fund International Health Policy Survey performed in 2004. It found primary care shortfalls in rural areas. Despite there being more General Practitioners per capita in Australia than other countries, their distribution was found to be unequal and inequitable, such that rural and remote areas are increasingly poorly served. This is supported by Australian authors Johnston & Wilkinson (2001).

It is shown through this research that the rural nursing staff thought the inability to access a General Practitioner was a 'very important' reason for possible primary care patients when they chose to come to the Emergency Department, with respondents signifying this level of importance as identical to question 12 (no charge to see a doctor at the ED). The rural nurses also responded highly to question 9 on the questionnaire (not happy with wait to get an appointment with GP), with 76% of nurses indicating it to be a 'very important' reason for possible primary care patients in coming to an Emergency Department.

Access to General Practitioner services for patients in the rural area is seemingly considered difficult by the nurses working in the area. This is not reflected to the same degree by those nurses working in metropolitan and regional Emergency Departments, who did not have the same level of agreement in importance that was stated by the rural nurses, but thought access to General Practitioners to be only a 'moderately important' reason for these patients when they were considering where to go for medical treatment. These responses must be taken in the context of the Emergency Department and region that the emergency nurses responding to the questions were working in.

There is no literature that discusses this aspect of differences between metropolitan, regional and rural emergency nurses, or health professionals generally, in relation to access to General Practitioner services. This is new and is an important point as it shows a distinction between perceptions of emergency nurses working in rural settings from other areas.

### **Central service provision**

Another difference between nurses working in rural Emergency Departments and those nurses working in metropolitan and regional departments was the emphasis on the central service provision an Emergency Department provides. Nurses working in metropolitan and regional Emergency Departments rated central service provision highly in their perceptions of why possible primary care patients come to an Emergency Department, with 66% (metropolitan) and 65% (regional) of nurses being of the view that this was a 'very important' reason for possible primary care patients when choosing to come to an Emergency Department. Nurses working in rural departments did not agree with their colleagues in the metropolitan and regional departments that it was 'very important' to possible primary care patients coming to an Emergency Department that all services are available at the one place, with only 28% responding 'very important' to question 7 (regarding seeing a doctor and receiving services in one central place).

It is unclear why this difference in perception occurs. It may be related to the perceived lack of access to General Practitioner services by nurses working in a

rural setting and so that aspect remains their focus. Whatever the reason, this is also a new piece of information that emerges from the data that could be further explored in future research. For example, research could be performed investigating General Practitioner service availability in rural areas and the impact these services have on presentation numbers to Emergency Departments in rural areas.

### **Interpreter services**

Another area of difference in perceptions between nurses working in different geographical departments was highlighted by Chi Square testing of the data. This difference related to the emergency nurses working in a metropolitan department who placed some level of importance on the availability of interpreters for possible primary care patients in their decision to attend an Emergency Department, indicated by 'moderately important' responses by metropolitan emergency nurses.

The regional and rural nurses did not seem to think an interpreter service played any part in the possible primary care patient choosing to come to an Emergency Department. Although this point is minor and only received 'moderately important' responses, it possibly shows that there are more multicultural communities being served by metropolitan Emergency Departments and so the nursing staff working there have identified this as a potential reason for some patients in choosing an Emergency Department rather than a General Practitioner or Medical Centre where such services may not be available.

When the statistics for the metropolitan area are reviewed, it can be seen that a large multicultural population dwell in that area, with 18% of the area's population being identified as non-English speaking (SESIAHS 2008). This could have potentially influenced those nurses working in the metropolitan Emergency Department when they were responding to the questionnaire. Hence the results may show a level of 'moderate importance', associated with the interpreter service that is available in hospitals, by respondents.

It is interesting also that the question pertaining to Aboriginal health staff (question 16 – wanted to be able to see Aboriginal health staff if needed to) was deemed by

nursing staff as not holding any importance to patients when choosing to come to an Emergency Department. It is known that the rural Emergency Departments service an area that has a higher density Aboriginal population than the rest of the Illawarra region, with 3.3% of the population being of Aboriginal or Torres Strait Islander descent, compared with 1.4% in the metropolitan region and 1.8% in the regional area (SESIAHS 2008). The question emerges, do rural emergency nurses not see value in this service for possible primary care patients and hence chose to respond 'not a reason'. If this is the case, then education is required to ensure that emergency nurses consider the use of Aboriginal health workers to be a valuable service for all patients of Aboriginal or Torres Strait Islander heritage. Cultural competence and consideration is an area that needs special attention, and in a busy environment like the Emergency Department setting, such considerations can be overlooked in an effort to provide care in an efficient manner.

This is an aspect that may warrant further research, that is, is there an indifference towards Indigenous people and/or culturally and linguistically different people that permeate emergency nurses, or is it based on busyness and time required to access resources to assist these populations of people that present to an Emergency Department?

### **Complexity and better treatment**

When 'very important' and 'moderately important' data were analysed for this demographic (metropolitan, regional and rural emergency nurses), some variations occurred. The perception by nurses that patients considered the complexity of their condition (question 2) and had an impression that better treatment was available in an Emergency Department (question 3) was rated higher by emergency nurses in the metropolitan department than those working in the regional and rural departments. This perception, expressed through the questionnaire, could reflect that metropolitan emergency nurses are aware they are working in a tertiary referral centre and that patients may consider it to be a better place to have care delivered. This perception may be a valid one since access to higher levels of care and specialists are available within the one hospital.

Again no previous literature has addressed these issues where such comparison is made. This is new data that could be explored in more detail in future research.

### **Summary and Conclusion of how nursing responses differ according to metropolitan, regional or rural location**

The variation in responses by emergency nurses in different geographical areas was most significant from the demographic data explored and analysed.

Once again the most common reasons identified by emergency nurses working in different departments that possible primary care patients come to an Emergency Department are for reasons associated with cost of service delivery. The key theme that emerged from the comparison between metropolitan, regional and rural emergency nurses was that the vast majority of emergency nurses who responded to the questionnaire considered possible primary care patients wanted an all encompassing service that was free and hence came to an Emergency Department rather than a General Practitioner or Medical Centre. They also considered that this patient group attend an Emergency Department due to the lack of ability to get access to a General Practitioner.

### **Differences in nursing responses based on the position the nurse held**

When the responses according to the position a nurse held within the Emergency Department were analysed, consistency was again found between the three groups of nurses. This was despite position – manager, nurse working in an advanced practice role, Registered Nurse (RN) or Enrolled Nurse (EN). Once again the common response concerning why they believed possible primary care patients attend an Emergency Department was primarily the provision of free services in the Emergency Department, and also the inability to access General Practitioners.

### **General Practitioner access**

The interesting factor arising from this group of nurses working in Emergency Departments was that those nurses holding positions in management or advanced

practice were more likely to consider access to General Practitioner services a major factor for possible primary care patients attending the Emergency Department than were staff in more junior positions, as evidenced by their responses to the questionnaire with 68% ranking it as 'very important'. This was, remarkably, higher than responses to the two questions pertaining to cost (questions 12 and 13) for this group. The two questions associated with free service delivery scored 55% agreement for question 12 and 64% agreement for question 13. So according to the scale used throughout the analysis determining meaningfulness, that is 66%, neither of these two questions relating to cost were perceived as significant by the nurses holding positions of seniority and/or responsibility.

Comparatively, the RN and EN responses were markedly higher, with 85% agreement for question 12 and 82% agreement for question 13. There was much greater consistency by these nurses that free service delivery was 'very important' to possible primary care patients when choosing a service provider. This was reflected when the Chi Square test was applied and highlighted significant differences between the two groups.

When 'moderately important' responses were considered alongside 'very important', agreement was very strong between both groups of nurses (managerial/advanced practice and RN/EN) with 96% of nurses in both groups indicating they thought possible primary care patients come to an Emergency Department because 'there is no charge for x-rays or medicine at the ED' (Question 13). The other question concerning cost (Question 12 'there is no charge to see a doctor at the ED') received a minimum of 91% of nursing responses signifying a strong belief that this reason held importance to possible primary care patients in their decision to come to an Emergency Department.

Why those nurses holding more senior positions within the Emergency Department did not rank the questions regarding cost as 'very important' but still clearly believed they held some importance to the patients decision, as seen when 'moderately important' was examined, is uncertain. It could be attributable to the fact that this group of nurses generally deal with this patient population more often and so may have more of an insight through conversation as to why the patient has presented.



Emergency Departments often have career pathways for nurses which sees nurses with more experience and advanced skills usually working in treatment areas designed for lower acuity patients. With a higher level of skill, treatment is performed more quickly and so the flow of patient turnover is more efficient. In addition, the more experienced nurse is more attune to complexities that may arise in a seemingly 'minor' presentation.

This is an interesting piece of material that emerged from the data that could be explored in more detail in future research. Since very little literature has focused on nursing, but chooses to look at health professionals generally or medical officers, it is no surprise that no literature was found that examined any variation that may occur between nursing positions.

### **Interpreter and Aboriginal health services**

It was again interesting that the questions pertaining to interpreter services and Aboriginal health staff, were highlighted as 'not a reason' for possible primary care patients to attend an Emergency Department by the majority of nurses (as previously seen in comparison of different departments). It is known and has previously been pointed out that the Illawarra region has a substantial multicultural and Aboriginal population (SESIHHS 2008), so it is unclear why any nursing staff, but especially nursing staff holding managerial or advanced practice roles, did not regard either of these services as important for the possible primary care patients to choose to use the Emergency Department for service provision.

Once again, the implications for clinical practice are the need for raised awareness of the value and importance of the services for populations for whom they are relevant. An increased appreciation of cultural awareness needs to be cultivated in emergency nurses so that they will value these services for all patients, including possible primary care patients, and readily utilise them on their own volition.

## **Differences in nursing responses based on the level of experience in years in the Emergency Department**

The data comparing nurses with varying levels of experience working in an Emergency Department also emphasised the point that emergency nurses believe possible primary care patients come to an Emergency Department because they want free service and adjuncts to treatment such as x-rays and medication. This was evident from the minimum response rate of 65% of nursing staff indicating the two questions relating to cost (Questions 12 and 13) to be 'very important' reasons they thought possible primary care patients attend an Emergency Department rather than a General Practitioner or Medical Centre. On the surface then it seems that irrespective of how long a nurse has worked in an Emergency Department, they generally judge that possible primary care patients come to an Emergency Department for care because it is free.

The difference between the three age groups was in the responses to those two questions concerning cost. Nurses with less experience (less than five years) had overwhelming agreement that cost and free service provision were 'very important' reasons for possible primary care patients coming to an Emergency Department (93% for both questions). Numbers declined when nurses with moderate levels of emergency nursing experience (five to ten years) were examined. Although they had high agreement, at 79% and 75% for questions 12 and 13 respectively, it was far less so than the more junior emergency nurses. Numbers further declined when the most experienced emergency nurses (more than ten years emergency nursing experience) were examined, ie. 65% for question 12 and 68% for question 13.

The inference from this slide in agreement with increasing experience could be that more experience makes one more understanding of patient motivation. Or it could be that with increasing experience comes being less judgemental as more exposure to patients enables the nurse to see more reasons why treatment is sought in an Emergency Department.

So although the overwhelming response was again that nurses believe possible primary care patients come to the Emergency Department since it offers free

treatment and services, regardless of level of emergency nursing experience, it appears that the nurses with more experience tended to be less definite in their responses.

## **Summary and Conclusion for what emergency nurses consider the reasons possible primary care patients present to Emergency Departments**

First and foremost it is evident that these emergency nurses considered possible primary care patients choose an Emergency Department for care because it offers free treatment and adjunct services.

In terms of the different Emergency Departments, when demographics were analysed, poor access to General Practitioner services rated highly in the rural nurses' responses. This may reflect the practical lack of General Practitioner services in the area. The metropolitan and regional nursing responses identified that they believed possible primary care patients come to an Emergency Department as all the key services are available in one spot, perhaps making it easier for the patient as they only attend one place. Metropolitan emergency nurses placed some value on the availability of interpreter services, perhaps reflecting the multicultural population serviced by the metropolitan Emergency Department.

When the positions of emergency nurses were explored, free service delivery was the principal response by these nurses regardless of the position they held in the Emergency Department. However, those emergency nurses holding positions associated with management and advanced practice rated access to General Practitioner services as more important than cost for possible primary care patients when choosing a service provider.

The data from this research study outlined that these emergency nurses consider patients make the choice to come to the Emergency Department primarily because it is a free service. It was evident from the data from the Parent Study that patients do not make decisions to present based on this reason, but on other clinical related

reasons. This key theme will be discussed now in terms of the second aim of the research.

## **2. Is there a difference between emergency nurses beliefs about the reason primary care patients present to an Emergency Department and the reasons patients themselves gave for their presentations to the Emergency Department?**

The second aim of this study was to examine whether difference exists between emergency nurses beliefs about the reason primary care patients present to an Emergency Department and the reasons patients themselves gave for their presentations to the Emergency Department. Through the data analysis, it was evident that emergency nurses' responses to the questionnaire were significantly different to the patients who responded to the questionnaire in the Parent Study.

### **Nurses versus patient responses differ**

Within the literature the definition of 'primary care' is much debated and it seems that whether or not a patient can be described as primary care is dependent on many factors. This was one of the key reasons the researcher provided a definition so that all nurses responding to the questionnaire were made aware of the patient population they were considering in their responses to the questionnaire.

When the nursing responses were compared to the responses by possible primary care patients (who were grouped according to a set criteria outlined in Chapter 1), the responses by the nursing staff were vastly different to the responses of the patients themselves who answered a questionnaire asking them why they came to the Emergency Department for care. When the reasons that were considered to be 'very important' by both nurses and patients were compared, clear distinctions were apparent. These differences will now be looked at under four subheadings of free service delivery, rural access to General Practitioners, interpreter services and

central service delivery as has been previously examined in Part 1 regarding the nursing responses.

### **Free service delivery**

Nurses working in the Emergency Departments in the former Illawarra Health Service rated free service provision the top reason for patients coming to an Emergency Department for care, with more than three quarters of respondents agreeing this was the most likely reason for a possible primary care patient to present. In comparison, possible primary care patients rated 'no charge to see a doctor at the ED' (question 12) 12<sup>th</sup> (out of 19 questions) and only 2.9% of patients responded that this is a 'very important' reason for choosing an Emergency Department for care and treatment. These same patients ranked question 13 'no charge for x-rays or medicine at the ED' as 10<sup>th</sup> out of 19, with only 3.5% (n=14) stating this was a 'very important' reason for coming to an Emergency Department rather than a General Practitioner or Medical Centre. So the provision of free services in an Emergency Department was not reported as a high priority for the patients who answered the questionnaire in the Parent Study.

When patients' 'very important' reasons for presentation were examined in the Parent Study, it was clear that they chose the Emergency Department for reasons they considered too urgent to be seen in a general practice surgery or Medical Centre. These possible primary care patients considered their 'health problem required immediate attention and was too urgent to wait to see a GP or Medical Centre' (Question1), with 68% of respondents saying this was a 'very important' reason for them coming to an Emergency Department.

These deliberate decisions seem to indicate that these patients considered their presenting condition and made a purposeful choice to attend an Emergency Department rather than a General Practitioner.

This is reinforced in the literature that looked at patient reasons for presentation to an Emergency Department, a key point consistently made being that patients present to the Emergency Department for what they see as legitimate and valid reasons. The literature affirms the responses made by the possible primary care patients who answered the questionnaire in the Parent Study as was earlier reported

in Chapter 3 – Literature review. The literature time and again reported that primary care patients (however defined) come to an Emergency Department to receive medical treatment because they consider their condition to be urgent and/or to be of moderate or serious complexity and therefore appropriate for an Emergency Department presentation (Boushy & Dubrinsky 1999; Guttman, Nelson & Zimmerman 2001; Howard & Davis 2005; Jacelon 2002; Northington, Brice & Zou 2005; Palmer et al 2005; Sanders 2000).

However, only 38.7% of nurses in this study agreed that clinical urgency may be a reason that possible primary care patients make the decision to attend an Emergency Department instead of a General Practitioner or Medical Centre. It is clear that these patients' responses are generally contrary to those of the nurses who cared for them

This could suggest that emergency nurses deem possible primary care patients as inappropriate for care in an Emergency Department if they don't consider that patients present with a condition they deem to require urgent care. Generally speaking, 'inappropriate' attendances are described in literature as those patients visiting an Emergency Department for treatment that would have been more suited for primary care. This assumption may fit the emergency nurses' views found in this research. Nurses beliefs and opinions are often different to what the patient themselves believe. This has been previously studied in environments outside of an Emergency Department by Lynn & McMillen (1999) and Sobo (2004) where the authors compared nurses with patient responses to what they considered to be good nursing care. These studies reiterate the point that nurses are often in error about what patients themselves believe, value or expect from their hospital presentation or admission. This warrants further investigation in future research.

So it is apparent in the current study that emergency nurses perceptions regarding possible primary care patients reasons for attending an Emergency Department vary greatly from what the possible primary care patients say themselves. It seems that health professionals judge primary care presentations not from the perspective of the patient presenting for care but from a service/care provider perspective (Sanders 2000, p.1102). When reflecting on this, it seems consistent that the nurses

completing the questionnaire gave their opinion, looking at the questions in terms of what they believed rather than what they thought the patient would consider. Since these nurses' responses were at odds to the patients' responses of urgency, and to a lesser degree complexity, it seems that emergency nurses are not on common ground with the patients. This concept has previously been highlighted by research outside the Emergency Department by Lynn & McMillen (1999) and Sobo (2004) with patients then being seen as inappropriate, and potentially lead to the negative attitudes and behaviours identified in the literature. Further research would be helpful to determine if this were true.

As identified earlier, the literature states that patients considered they had valid health-related reasons for attending Emergency Departments. From the Parent Study, it seems that patients will continue to use Emergency Departments for primary care problems (as they have always done) since they consider their reasons for presentation to be urgent.

In response, a clinical implication is for the Emergency Department to be organised to provide timely and efficient care for the needs of this patient group who may be considered non-urgent. This may be in the form of employing nurse practitioners to work in the Fast Track area of the Emergency Department, or another solution where efficient treatment can be given to these patients without hindering the functioning of the acute areas in the Emergency Department.

### **Access to General Practitioner services**

With 60% of all emergency nurses indicating within the questionnaire that inaccessibility to General Practitioner services was a 'very important' reason for possible primary care patients coming to an Emergency Department, this appears to be a real area of concern for them. Often the inaccessibility to General Practitioner services was considered a core reason for visiting an Emergency Department for possible primary care conditions, by health professionals, in the literature (Murphy 1998; Sanders 2000).

In contrast, only 7% of possible primary care patients within the Parent Study considered access to General Practitioner services to be a problem and hence a reason for choosing an Emergency Department for care. When examining the results

from the Parent Study, one response stood out as to why they chose the Emergency Department – the perceived urgency of their condition.

This point is validated in the literature. Possible primary care presentations to the Emergency Department have been documented in the literature as assessing their condition to be requiring urgent care that can only be provided at the Emergency Department, not because they are dissatisfied with their general practice services (Gill & Riley 1996, p.491; Northington, Brice & Zou 2005). So again it is evident that the nurses responding to the questionnaire were at odds with patient responses from the parent study and other studies.

### **Central service provision / ease and accessibility**

The delivery of medical treatment and adjunct services in one place (Question 7) was the only question where any real consistency in responses between the nurses and the possible primary care patients occurred. Fifty-four percent of nurses and 51% of patients responded that this was a 'very important' reason for coming to the Emergency Department rather than a General Practitioner or Medical Centre. Throughout the literature, a commonly cited reason by patients for choosing the Emergency Department rather than their General Practitioner was the accessibility and expediency available at an Emergency Department (Gill & Riley 1996, p.491; Northington, Brice & Zou 2005). This may well be due to the ability to have all services attended to in one place.

This centrality of services could be possibly linked with ease and accessibility to the patients from the nurses' perspective. This was evident through the nursing responses where 30% of nursing respondents agreed that question 11 (easier to get to the ED than a GP surgery or Medical Centre) was a 'very important' reason for possible primary care patients in making their decision to attend the Emergency Department. This link was not evident when patient responses were examined, with patient responses not supporting this as a reason for presenting to an Emergency Department. Only 8% of patients fitting the criteria to participate stated ease and accessibility were 'very important' reasons for coming to an Emergency Department. These findings from nurses and patients are incongruent with the literature. Afilalo et



al (2004) found that patients presented to an Emergency Department as it was the most accessible option at the time of injury or illness (Afilalo et al 2004, p.1303).

### **Interpreter services and Aboriginal health services**

As was seen in the responses by emergency nurses, the use of interpreter services was not regarded as highly valuable. But it was evident in the metropolitan area that moderate importance was placed on this service by nurses when they considered what possible primary care patients might think important when choosing an Emergency Department for care. Twenty-three percent of nurses working in the metropolitan Emergency Department stated they thought possible primary care patients may choose an Emergency Department rather than a General Practitioner or Medical Centre because of the access to interpreter services. Although a relatively small number it stood out from the other regional and rural Emergency Department responses as significant using Chi Square. Comparatively, 2.4% of patients who participated in the Parent Study responded to this question with any level of importance ('very' or 'moderately'). Despite the large multicultural population in the Illawarra region, patients seemed to demonstrate that they did not believe this service would warrant them choosing an Emergency Department specifically.

The question concerning Aboriginal health staff (question 16) did not rate highly for either patients or nursing staff. When both degrees of importance used in the questionnaires were combined, 2.4% of patients and 14.8% of nursing staff responded positively that they believed this service would potentially influence patients to come to an Emergency Department for care.

It is interesting to note that nothing in the literature was found regarding either of these two factors. This could possibly be an area requiring more research to determine whether they do in any way influence patients in their decision to attend an Emergency Department.

## **Summary and Conclusion of nurses versus patient responses**

The results demonstrate a general consistency between all nursing staff irrespective of department, position, experience, age or gender. There were some significant findings, particularly in relation to department (metropolitan/regional/rural) and position held. The nursing staff in the rural Emergency Departments considered (in addition to cost) that lack of access to General Practitioner services in rural areas was a major factor in this possible primary care patient population attending the Emergency Department. Emergency nurses holding more senior roles in management and advanced practice did not explicitly identify any reason for possible primary care patients attending an Emergency Department aside from the inability to access a General Practitioner. These are significant findings that have not previously been discussed in literature. They are important to emergency nursing as they demonstrate clear beliefs held by emergency nurses about possible primary care patients that present to Emergency Departments daily. This will be discussed in the 'value to nursing' section shortly.

Both the findings from the Parent Study and the literature reviewed concerning patient reasons for presenting to an Emergency Department in preference to a primary care facility indicate that people present to the Emergency Department for what they see as legitimate reasons. Hence it would seem that patients consider their presenting condition and make a deliberate choice to attend an Emergency Department rather than a General Practitioner. This does not sit with the nurses responses which indicated these patients want free service delivery primarily and that they are often unable to access General Practitioner services so are then left with little option but to attend an Emergency Department.

From the research being reported here, it is evident that the perceptions of emergency nurses are inconsistent with what the patients actually report as reasons for choosing to come to an Emergency Department. This is in line with the literature that was reviewed and reported in Chapter 3. A question emerges as to whether the perceptions of the nursing staff working in Emergency Departments can impact on the treatment provided to patients with seemingly non-urgent conditions presenting to an Emergency Department. If a patient has a negative experience and feels uncomfortable due to a nurse's attitude that stems from their perception of the

patient being there inappropriately, then they may be hesitant to present to the Emergency Department in the future and this could have serious implications in a patient who is untrained to recognise serious illness that requires emergency care.

In addition to these conclusions, it is important to note from the research that possible primary care patients' responses generally reflected the literature surrounding primary care patients' presenting to Emergency Departments. However, nurses' responses indicated they were at odds with the patients studied within this research and with patients generally (as outlined in the literature review, Chapter 3).

### **3. 'Not a reason' comparison**

An additional element of the research that warrants some discussion is the 'not a reason' responses to the questionnaire. This was one of the possible responses to questions within the questionnaire for both patients and nurses. When the 'not a reason' responses to the questionnaire completed by emergency nurses were analysed, consistency was seen across all demographics. It was quite clear from the responses that emergency nurses did not believe possible primary care patients chose to come to an Emergency Department for anonymity (demonstrated through responses to questions 5, 6, and 17), or for access to services not freely available in the community, such as interpreter services (demonstrated through responses to questions 14, 15 and 16). This series of 'not a reason' responses indicate a great level of consistency amongst emergency nurses irrespective of any demographic comparison that was performed.

Why these reasons are seen as not important for patients by nurses is unclear. Although these reasons were not highlighted by the possible primary care patients completing the questionnaire as holding any level of importance in the Parent Study, there are clinical implications that arise.

The issue of anonymity seems to be immaterial considering the patients themselves do not claim this to be important to them. Access to a female doctor is not always possible in an Emergency Department setting and so nurses probably do not consider this to be of concern for possible primary care patients. Patients did not rate this as an indicator for choosing to attend an Emergency Department with 0.5% of patients stating this was a 'very important' reason to them when choosing their health care provider.

However other additional services should perhaps be considered more highly by nurses working in Emergency Departments, particularly culturally appropriate provisions such as interpreter and Aboriginal health services. Possible primary care patients may not choose to come to an Emergency Department to specifically utilise

such services (as indicated by their responses to the questionnaire), but it should be on every emergency nurses agenda to utilise these services where appropriate.

## **Value to nursing**

The research undertaken concerning emergency nurses and their perceptions of why possible primary care patients choose an Emergency Department rather than a General Practitioner or Medical Centre is important for Australian healthcare. As identified in the literature review in Chapter 3, no recent research or literature has emerged from Australia concerning this topic. No published Australian research regarding health professional beliefs about and perceptions towards primary care patients in Emergency Departments has been found.

The literature review in Chapter 3 highlighted that there is no accepted practical definition of what an 'emergency' presentation is. It must be questioned then whether nursing staff (or indeed any health care professional) is able to make judgements about the appropriateness of a visit to an Emergency Department. Emergency Departments are established to meet patients' medical needs, and oft times these needs may not be deemed 'urgent' by a qualified emergency nurse, but are deemed 'urgent' by a patient according to their knowledge base and the situation in which the need occurs. Nursing staff working in Emergency Departments cannot judge a patient and claim they choose to present for financial reasons when the patient questionnaire clearly showed this was not a priority for this patient population group when making their decision regarding coming to an Emergency Department.

With such clear perceptions about patient reasons for choosing an Emergency Department rather than a General Practitioner or Medical Centre, emergency nurses should be encouraged to reflect on why they believe these reasons and then compare their beliefs with patient reasons that were identified in the Parent Study. Perhaps the focus of the clinical illness or injury needs to be core to emergency nurses so that judgements do not arise in relation to the perceived 'appropriateness' of any given condition. When emergency nurses can provide care that is not influenced by what seems to be a myth regarding cost of services, then better

nursing care will inevitably be given. This may be through effective communication with patients and perhaps a more empathetic approach, irrespective of how trivial the nurse may consider the presentation to be.

How a nurse working with possible primary care patients perceives the patients motivation for choosing to come to an Emergency Department is important. Attention needs to be given to informing nurses of how they can impact on a patient through their attitude, both positive and negative.

Although emergency nurses consider possible primary care patients come to an Emergency Department due to lack of cost, it is plausible that they see these patients as poor and therefore legitimate for service delivery. This could mean care is provided with no negatively associated behaviours that have been identified in the literature.

If, however, an emergency nurse believes a patient presentation is inappropriate, they may inadvertently reflect frustration in their interactions with the patient. This could lead to the patient feeling unwelcome and experiencing uncertainty as to whether they should have come to the Emergency Department. This may lead them to be hesitant to come again in the future, which could have adverse outcomes if treatment is not sought. It is not a nurse's responsibility to gauge the appropriateness of a patient presentation, but to provide consistent nursing care to all people who present for service.

This research highlights the variation in nursing and patient views concerning illness and/or injury that may be classed as primary care, and so the key impact it can have on nursing is to inform emergency nurses of this discrepancy and engage those nurses in understanding their responsibility and "commitment to respect, promote, protect and uphold the fundamental rights of people who are both the recipients and providers of nursing and health care" (ANMC<sup>2</sup> 2008, p.1) as outlined in the Code of Ethics for Nurses in Australia. In particular, nurses may need reminding of Value Statement 4 – Nurses value access to quality nursing and health care for all people (ANMC<sup>2</sup> 2008, p.7). This Value Statement clearly outlines that nurses "seek to eliminate prejudicial attitudes concerning personal characteristics such as... economic, social or health status" (ANMC<sup>2</sup> 2008, p.7), and that they will

“promote the provision of quality nursing and health care to all members of the community and oppose stigmatising or harmful discriminatory beliefs or actions” (ANMC<sup>2</sup> 2008, p.7).

By engaging emergency nurses with these statements, reflection of core beliefs and values will occur and set the reference point for their own practice.

## **Chapter 7 – Conclusion and Recommendations**

This final chapter will reflect on the findings in light of how they may influence changes in clinical practice. It will consider what nurses need to be informed of to ensure they meet the needs of the possible primary care patient population that continue to attend Emergency Departments. This chapter will also recommend further nursing research that may extend the findings from this research. Limitations of the research are discussed in relation to bias and applicability of the research.

The study sought to examine the opinions of emergency nurses towards the possible primary care patient. It sought to explore what a group of emergency nurses considered the reasons possible primary care patients present to Emergency Department for treatment. This was achieved. The results would probably not surprise any emergency nurse, in that the emergency nurses in the study overwhelmingly showed a belief that possible primary care patients come to an Emergency Department because they want free service delivery. The evidence that this is a widespread belief held by emergency nurses is now documented and no longer anecdotal.

This thesis also sought to compare nursing perceptions with possible primary care patients' reasons for presenting to an Emergency Department rather than a General Practitioner or Medical Centre. This also was achieved and showed marked discrepancies between the two groups.

Overall, the key point that arose from this research study was that emergency nurses within the former Illawarra Area Health Service have consensus in their beliefs as to why possible primary care patients (as defined in Chapter 1) choose to come to an Emergency Department. The commonly held belief by these nurses that possible primary care patients want free service(s) was reiterated time and again as various demographic data were analysed. This (evidently) strongly held belief answered the question posed as the first aim of the study.

The second aim of the research study was to compare emergency nurses beliefs about the reason(s) possible primary care patients present to an Emergency



Department with the reasons patients themselves gave for their presentations (from the Parent Study results). The majority of patients in the Parent Study identified their reason for coming to an Emergency Department were because they considered their “health problem needed immediate attention and was too urgent to wait to see a GP or Medical Centre”. Such a valid reason for this group of possible primary care patients choosing an Emergency Department for care is reinforced through the literature.

Recommendations that could be made from these two key findings are that perhaps education is required for nurses which outlines patients’ range of reasons for presentation to an Emergency Department. This is necessary to help manage any associated prejudice that may arise from a relatively negative assumption that these patients only want free service(s). Any negativity by emergency nurses’ possibly demonstrates a general belief that this patient group is inappropriate for care in an Emergency Department. Much literature suggests that emergency health professionals judge these patients to be inappropriate, as seen in Chapter 3. If emergency nurses believe that possible primary care patients are inappropriate for treatment in an Emergency Department, coming merely because they receive free service, then this is markedly different from what the patients classed as primary care (by definition in Chapter 1) believe.

So this research highlights that nurses and patients differ in their beliefs regarding reasons for presentation to Emergency Departments. This is significant, with both parties perhaps requiring education about the role of an Emergency Department. However, it is particularly pertinent for emergency nurses to understand this group of patients underlying reasons for presentation and respond to their needs appropriately without any preconceptions.

The data from emergency nurses working in the rural sector of the former Illawarra Area Health Service suggest that they commonly held the belief that General Practitioner services were inadequate in their area. The lack of services may well be the case, but this issue is beyond the scope or responsibility of nursing. Perhaps consideration needs to be given to increasing the scope of rural emergency nurses so that they can perform an advanced level of care delivery and thus provide

services that may not be readily available in their community in a timely manner. The introduction of nurse practitioners to rural emergency departments would be an initiative that could enhance service provision for the possible primary care patient population. This study highlights the need for emergency nurses working in rural areas to have increased awareness of their role and on looking to expand their scope so that they can deal more efficiently with possible primary care patients that present to the Emergency Department.

## **Limitations**

Although this study clearly demonstrates that emergency nurses working in the former Illawarra Area Health Service consistently believe that possible primary care patients want free service delivery, there are a number of limitations of the research. This research has narrow scope and concentrates on emergency nurses beliefs without exploring reasons behind those beliefs or how they influence behaviour and attitude towards possible primary care patients. This research is limited in terms of not providing an avenue for the emergency nurse participants to further explore their attitudes towards this patient group.

Another limitation of the study is that the emergency nursing staff completing the questionnaire knew the researcher. It could be possible that the nursing staff wanted to 'please' the researcher and hence completed the questionnaire though there is no reason why this would have affected their (anonymous) responses. There was no personal collection of the questionnaires from staff, all were sent via mail (internal or external) to an office, so it is unlikely that staff felt coerced to complete the questionnaire.

Although this research study could potentially be applied to other areas for comparison, it is a study limited to a particular area of NSW. Therefore the findings can only be considered more broadly when applying them to emergency nursing. This limited context should be remembered when reading.

From the questionnaire completed by the patients in the Parent Study, the lack of General Practice availability did not seem to influence patients in their choice of

provider. The Commonwealth Fund International Health Policy Survey (2004) found that in Australia only 9% of respondents claimed they had been to the Emergency Department for something they deemed suitable for treatment by their local medical officer. The survey also demonstrated that few Australians use the Emergency Department for conditions that may be treated by a General Practitioner (Schoen & Osborn 2004). This is significant for this research as it identifies that patients coming to Emergency Departments are generally 'appropriate' and hence, should be considered as such by staff.

### **Recommendations for future research**

A number of potential areas could be researched further from the work performed within this study. A number of new questions from this study have emerged that could be addressed in the future. These will be outlined here.

One of the most important questions to emerge from this study pertains to how these beliefs held by emergency nurses regarding free service affect the care provided to possible primary care patients. This is an important area that needs to be explored with further research. Stemming from this is the question surrounding whether this belief leads to negative behaviour in the nurses delivering care. Literature asserts that when health professionals believe patients are 'inappropriate', they respond with less sympathy, increased irritation, negativity, bias, lower motivation to help this patient population (Crouch & Dale 1994), and lower morale (Howard et al 2005, p.430). These links could be usefully be examined through further research focusing specifically on nursing and on nurses beliefs and how they influence attitudes and hence behaviours.

Associated with the above recommendation is for research to look into what constitutes an 'appropriate' patient presentation to an Emergency Department. This would then expand the ability to make more valid comparisons between Emergency Departments nationally and internationally.

Central service provision was shown to be more important to metropolitan and regional emergency nurses than rural nurses. The reason for this value is unclear. This is an aspect of rural services that could be further explored in future research.

Another interesting finding of this research was that metropolitan emergency nurses (through the questionnaire, identified in their 'moderately important' responses) perceived possible primary care patients came to the Emergency Department because it provided better care. This was not seen in responses by emergency nurses in the regional or rural areas. This perception could be explored in more detail in future research, particularly since literature has not addressed this comparison of metropolitan services being 'better' than those outside a metropolitan area.

## **Final remarks**

This study has endeavoured to show what emergency nurses working in the former Illawarra Area Health Service consider the reasons that possible primary care patients choose to come to Emergency Departments for service delivery. Primarily it has shown that emergency nurses think that possible primary care patients come for treatment because it is free. This is markedly different to what the patients themselves account for choosing an Emergency Department rather than a General Practitioner or Medical Centre.

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# **Appendices**

## **Appendix 1: Possible primary care patient definition**

Criteria outlined for categorising patients as possible primary care when presenting to the Emergency Departments:

- Patients classified into category 4 or 5 of the Australasian Triage Scale by the triage nurse on duty
- Not arriving to the Emergency Department by ambulance
- Patients who were self-referred
- Patients who were presenting for a new episode of care
- Patients who were not expected to be admitted (according to the assessment of staff in the Emergency Department).

That is, any patient given a triage category 4 or 5 who self-presents, is not a planned return visit, and is unlikely to be admitted according to the Triage nurse assessing the patient.

## Appendix 2 Patient Questionnaire

### Illawarra Health Emergency Department (ED) Research Project Survey of Emergency Department (ED) Patients

For office use only:

Location of ED: TWH/SHH/BDH/SDMH/MUH

Time: Date:

Day: Sun Mon Tues Wed Thur Fri Sat

**A. Please complete these details and tick the boxes about the patient.**

Male <input type="checkbox"/>	Female <input type="checkbox"/>	Are you Aboriginal or Torres Strait Islander? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Age of patient _____		Postcode of patient _____	
What language do you speak at home? <input type="checkbox"/> English <input type="checkbox"/> Other (please specify): _____			
Do you usually come to the Emergency Department (ED) or to a General Practitioner (GP) or Medical Centre for your health care?		<input type="checkbox"/> ED	<input type="checkbox"/> GP/ Medical Centre
Do you usually come to the Emergency Department (ED) or to a General Practitioner (GP) or Medical Centre for your <b>After Hours</b> health care? (For this survey, 'after hours' means the hours between 6:00pm to 8:00am Monday to Friday, after 12.00 noon Saturday and all day Sunday).		<input type="checkbox"/> ED	<input type="checkbox"/> GP/ Medical Centre
Thinking back over the last 12 months, how many times have you visited an Emergency Department (ED) before today (not just this ED, but also any other ED you may have been to)?			
Never <input type="checkbox"/>	Once <input type="checkbox"/>	2-5 times <input type="checkbox"/>	6 times or more <input type="checkbox"/>
Thinking back over the last 12 months, how many times have you visited a General Practitioner (GP)?			
Never <input type="checkbox"/>	Once <input type="checkbox"/>	2-5 times <input type="checkbox"/>	6 times or more <input type="checkbox"/>
Do you have private health insurance? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Person completing this survey (tick one):			
The patient <input type="checkbox"/>	Parent <input type="checkbox"/>	Other family member <input type="checkbox"/>	Friend <input type="checkbox"/> Other <input type="checkbox"/>

**B. Please tick the box that best describes the problem that led you (or the patient you are caring for) to come to the ED today**

<input type="checkbox"/> An injury	<input type="checkbox"/> An illness	<input type="checkbox"/> Other
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**C. Why did you come to the Emergency Department (ED) today rather than a General Practitioner (GP) or medical centre?**

Please tick the box that best describes the importance of each of the following possible reasons that you came to the Emergency Department today. There may be more than one reason that you came to the ED today.

	A very important reason	A moderately important reason	Not a reason
1. My health problem needed immediate attention and was too urgent to wait to see a GP or Medical Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. My health problem was too serious or complex to see a GP or Medical Centre, including after hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I feel the medical treatment is better at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I wanted a second opinion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I did not want my GP to know about this particular health problem so I came to the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I usually prefer to talk to a doctor I don't know about my health problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. I am able to see the Doctor and have any tests or X- rays all done in the same place at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I am not able to get in as a patient at a GP surgery as the books are closed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I am not happy with the time I have to wait to get an appointment with a GP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I do not like making appointments and prefer the ED as I can attend when I want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. It is easier for me to get to the ED than a GP surgery or Medical Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. There is no charge to see a doctor at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. There is no charge for tests, x- rays or medicine at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I wanted to see a female doctor and thought I could at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I wanted to see a doctor or interpreter who speaks my language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I wanted to be able to see Aboriginal health staff if I needed to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I prefer to be in the ED environment than at a GP surgery or Medical Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. My family has traditionally used the ED (Casualty) for our health care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you are attending After Hours (that is, between 6pm and 8am Monday to Friday, or after 12noon Saturday and all day Sunday) please complete the following questions.

*Please tick the box that best describes the importance of each of the following possible reasons that you came to the Emergency Department today. There may be more than one reason that you came to the ED today.*

19. I do not know how to contact an After Hours GP service or Medical Centre		
<input type="checkbox"/> A very important reason	<input type="checkbox"/> A moderately important reason	<input type="checkbox"/> Not a reason
20. My family has traditionally used the ED for all our After Hours health care		
<input type="checkbox"/> A very important reason	<input type="checkbox"/> A moderately important reason	<input type="checkbox"/> Not a reason

D. Would you like to make any additional comments on why you chose the ED to provide your health care today or at other times?

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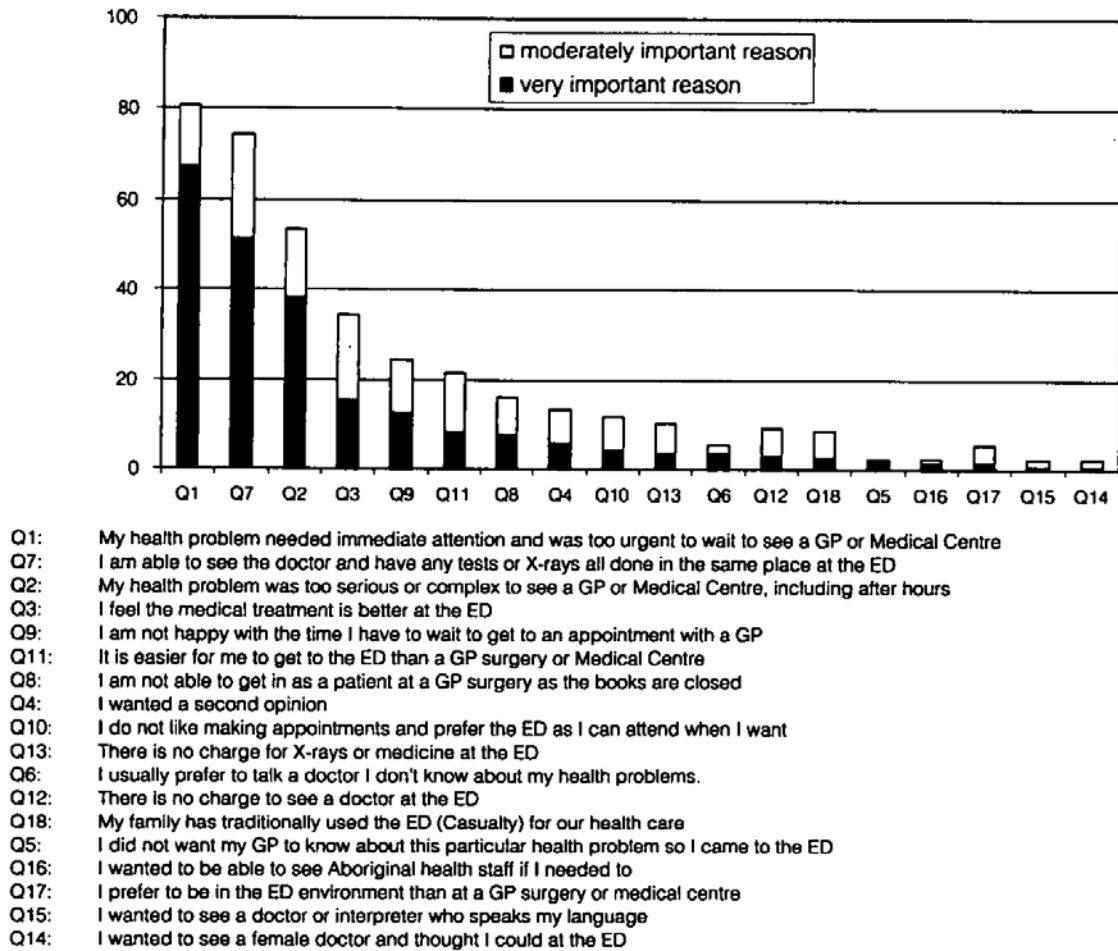


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Thank you for participating in this survey

## Appendix 3: Summary of results from Parent Study

**Figure 1: Reasons why patients presented to an ED: per cent of valid responses**



#### **Appendix 4: Publications arising from Parent Study**

1. Bezzina AJ, Smith PB, Cromwell D, Eagar K 2005, 'Primary care patients in the emergency department: who are they? A review of the definition of the 'primary care patient' in the emergency department', *Emergency Medicine Australasia*, vol.17, pp.472-479.
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## Appendix 5: Description of ATS

<b>ATS Category</b>	<b>Treatment Acuity (Maximum waiting time)</b>	<b>Performance Indicator Threshold</b>
ATS 1	Immediate	100%
ATS 2	10 minutes	80%
ATS 3	30 minutes	75%
ATS 4	60 minutes	70%
ATS 5	120 minutes	70%

ACEM 2006, p.2



## Appendix 6: The Australasian Triage Scale and descriptors

ACEM 2005, pp.5-7.

ATS Category	Response	Description of Category	Clinical Descriptors (indicative only)
<b>Category 1</b>	Immediate simultaneous assessment and treatment	<b>Immediately Life-Threatening</b>  Conditions that are threats to life (or imminent risk of deterioration) and require immediate aggressive intervention	Cardiac arrest Respiratory arrest  Immediate risk to airway- impending arrest Respiratory rate <10/min Extreme respiratory distress  BP <80 (adult) or severely shocked child/infant  Unresponsive or responds to pain only (GCS<9) Ongoing/prolonged seizure IV overdose and unresponsive or hypoventilation  Severe behavioural disorder with immediate threat of dangerous violence

ATS Category	Response	Description of Category	Clinical Descriptors (indicative only)
<b>Category 2</b>	Assessment and treatment within 10 minutes (assessment and treatment often simultaneous)	<p><b>Imminently Life-Threatening</b></p> <p>The patient's condition is serious enough or deteriorating so rapidly that there is the potential of threat to life, or organ failure, if not treated within 10 minutes of arrival</p> <p><b>OR</b></p> <p><b>Important time-critical treatment</b></p> <p>The potential for time-critical treatment (eg. Thrombolysis, antidote) to make a significant effect on clinical outcome depends on treatment commencing within a few minutes of the patient's arrival in the ED</p> <p><b>OR</b></p> <p><b>Very severe pain</b></p> <p>Humane practice mandates the relief of very severe pain or distress within 10 minutes</p>	<p>Airway risk- severe stridor or drooling with distress Severe respiratory distress</p> <p>Circulatory compromise</p> <ul style="list-style-type: none"> <li>• Clammy or mottled skin, poor perfusion</li> <li>• HR&lt;50 or &gt;150 (adult)</li> <li>• Hypotension with haemodynamic effects</li> <li>• Severe blood loss</li> </ul> <p>Chest pain of likely cardiac nature Very severe pain- any cause</p> <p>BSL &lt;2mmol/l</p> <p>Drowsy, decreased responsiveness any cause (GCS&lt;13) Acute hemiparesis/dysphasia</p> <p>Fever with signs of lethargy (any age)</p> <p>Acid or alkali splash to eye- requiring irrigation</p> <p>Major multi trauma (requiring rapid organised team response) Severe localised trauma- major fracture, amputation</p> <p>High-risk history:</p> <ul style="list-style-type: none"> <li>• Significant sedative or other toxic ingestion</li> <li>• Significant/dangerous envenomation</li> <li>• Severe pain suggesting PE, AAA or ectopic pregnancy</li> </ul> <p>Behavioural/Psychiatric:</p> <ul style="list-style-type: none"> <li>• Violent or aggressive</li> <li>• Immediate threat to self or others</li> <li>• Requires or has required restraint</li> <li>• Severe agitation or aggression</li> </ul>

ATS Category	Response	Description of Category	Clinical Descriptors (indicative only)
<b>Category 3</b>	Assessment and treatment start within 30 minutes	<p><b>Potentially Life-Threatening</b></p> <p>The patient's condition may progress to life or limb threatening, or may lead to significant morbidity, if assessment and treatment are not commenced within 30 minutes of arrival</p> <p><b>OR</b></p> <p><b>Situational urgency</b></p> <p>There is potential for adverse outcome if time- critical treatment is not commenced within 30 minutes</p> <p><b>OR</b></p> <p>Humane practice mandates the relief of severe discomfort or distress within 30 minutes</p>	<p>Severe hypertension</p> <p>Moderately severe blood loss- any cause</p> <p>Moderate shortness of breath</p> <p>SaO<sub>2</sub> 90-95%</p> <p>BSL &gt; 16mmol/l</p> <p>Seizure (now alert)</p> <p>Any fever if immuno- suppressed eg. Oncology patient, steroid treatment</p> <p>Persistent vomiting</p> <p>Dehydration</p> <p>Head injury with short LOC- now alert</p> <p>Moderately severe pain- any cause- requiring analgesia</p> <p>Chest pain likely non-cardiac and moderate severity</p> <p>Abdominal pain without high risk features- moderate severe or patient age &gt; 65 years</p> <p>Moderate limb injury- deformity, severe laceration, crush</p> <p>Limb- altered sensation, acutely absent pulse</p> <p>Trauma- high-risk history with no other high-risk features</p> <p>Stable neonate</p> <p>Child at risk</p> <p>Behavioural/Psychiatric:</p> <ul style="list-style-type: none"> <li>• Very distressed, risk of self-harm</li> <li>• Acutely psychotic or thought disordered</li> <li>• Situational crisis, deliberate self-harm</li> <li>• Agitated/ withdrawn potentially aggressive</li> </ul>

ATS Category	Response	Description of Category	Clinical Descriptors (indicative only)
<b>Category 4</b>	Assessment and treatment start within 60 minutes	<p><b>Potentially serious</b></p> <p>The patient's condition may deteriorate, or adverse outcome may result, if assessment and treatment is not commenced within 1 hour of arrival in the ED. symptoms moderate or prolonged</p> <p><b>OR</b></p> <p><b>Situational urgency</b></p> <p>There is potential for adverse outcome if time-critical treatment is not commenced within 1 hour</p> <p><b>OR</b></p> <p><i>Significant complexity or severity</i></p> <p>Likely to require complex workup and consultation and/or inpatient management</p> <p><b>OR</b></p> <p>Humane practice mandates the relief of severe discomfort or distress within 1 hour</p>	<p>Mild haemorrhage</p> <p>Foreign body aspiration, no respiratory distress</p> <p>Chest injury without rib pain or respiratory distress</p> <p>Difficulty swallowing, no respiratory distress</p> <p>Minor head injury, no loss of consciousness</p> <p>Moderate pain, some risk features</p> <p>Vomiting or diarrhoea without dehydration</p> <p>Eye inflammation or foreign body- normal vision</p> <p>Minor limb trauma- sprained ankle, possible fracture, uncomplicated laceration requiring investigation or intervention- normal vital signs, low/moderate pain</p> <p>Tight cast, no neurovascular impairment</p> <p>Swollen 'hot' joint</p> <p>Non-specific abdominal pain</p> <p>Behavioural/Psychiatric:</p> <ul style="list-style-type: none"> <li>• Semi-urgent mental health problem</li> <li>• Under observation and/or no immediate risk to self or others</li> </ul>

ATS Category	Response	Description of Category	Clinical Descriptors (indicative only)
<b>Category 5</b>	Assessment and treatment start within 120 minutes	<p><b>Less urgent</b></p> <p>The patient's condition is chronic or minor enough that symptoms or clinical outcome will not be significantly affected if assessment and treatment are delayed up to 2 hours from arrival</p> <p><b>OR</b></p> <p>Clinico-administrative problems, such as:</p> <ul style="list-style-type: none"> <li>• Results review</li> <li>• Medical certificates</li> <li>• Prescriptions only</li> </ul>	<p>Minimal pain with no high-risk features</p> <p>Low-risk history and now asymptomatic</p> <p>Minor symptoms of existing stable illness</p> <p>Minor symptoms of low-risk conditions</p> <p>Minor wounds- small abrasions, minor lacerations (not requiring sutures)</p> <p>Scheduled revisit eg. Wound review, complex dressings</p> <p>Immunisation only</p> <p>Behavioural/Psychiatric:</p> <ul style="list-style-type: none"> <li>• Known patient with chronic problem</li> <li>• Social crisis, clinically well patient</li> </ul>

## Appendix 7: Emergency Department service levels (NSW Health)

This overview of Emergency Department role delineation is outlined by NSW Health following a working party of experienced clinicians who structured the document '*NSW Government action plan for health. Emergency department services plan*' (2001). The purpose of the document is to ensure common standards, guidelines and procedures are in place for Emergency Departments of similar sizes and functions. This is outlined in terms of the minimum level of support services an Emergency Department must have to be classed at a particular level.

Level	Description	Minimum level of support services							
		Path	Pharm	Diag Im	NMed	Anaes	ICU	CCU	OT
1	Able to provide first aid and treatment prior to moving to higher level of service, if necessary. Access to a Medical Practitioner. Quality assurance activities(3) . Interpreters as per Circular 94/10.	1	1	1	-	1	-	1	-
2	Emergency service in small hospital. Designated assessment and treatment area. Generally deals with minor injuries and ailments. Resuscitation, limited stabilisation capacity and assisted ventilation capacity prior to referral to higher level of care. Nursing staff with isolated certificate to perform emergency x-rays of chests and broken limbs. RN(1) from ward available to cover emergency presentations. RN(1) with recent acute experience/First Line Emergency Care(1) (FLEC) education.VMO on call. May be Local Trauma Service(2). Access to local and statewide retrieval and transport service.Access to specialist consults including mental health resources, with the ability to transfer and refer. Access to CNC(1) . Access to CNE(1) is desirable.(1)	1	1	1	-	1	1	1	-

Level	Description	Minimum level of support services							
		Path	Pharm	Diag I	NMed	Anaes	ICU	CCU	OT
3	As Level 2 plus designated nursing staff(1) available 24 hour and NUM(1). Some RNs(1) having completed or undertaking relevant post-basic studies. Has 24 hour access to Medical Officer(s)(1) on site or available within 10 minutes. Specialists in general surgery, anaesthetics, paediatrics and medicine available for consultation, if applicable. Access to CNC.(1) Full resuscitation facilities in separate room. Formal quality assurance program(3). Access to allied health professionals and availability of specialist psychiatric/ mental health assessment. Ideally Medical Director(1) , preferably with specialist qualifications. Pathology, radiology and operating suites available during normal hours and on call access after hours. Education programs for nursing and medical staff	3	2	3	-	3	3	3	3
4	As Level 3 plus can manage most emergencies, including stabilisation and assisted ventilation and provide definitive care for most. Purpose designed area. Designated Medical Director(1) with training and experience in emergency medicine. Experienced Medical Officer(s)(1) on site 24 hours. RNs(1) and experienced RNs(1) on site 24 hours, including a RN with post basic emergency qualifications on each shift. Specialists on call 24 hours in intensive care, general surgery, paediatrics, orthopaedics, anaesthetics and medicine. 24 hour access to on call liaison psychiatry. May send out medical and nursing teams to disaster site. Participation in regional retrieval system (rural Base Hospitals) is desirable. May be a Regional Trauma Service(2). May provide Emergency Department Registrar position. Provides in-house formal medical and nursing education programs. Access to CNC.(1) Access to CNE(1) is desirable. 24 hour access to pathology, radiology and operating suites.	4	4	4	3	4	4	4	4

Level	Description	Minimum level of support services							
		Path	Pharm	Diag Im	NMed	Anaes	ICU	CCU	OT
5	As Level 4 plus can manage all emergencies, and provide definitive care for most. Medical Director(1) is Fellow of the Australasian College for Emergency Medicine (FACEM) accredited (NB. Specialist Paediatric Hospitals may have Medical Director with specialist qualifications in paediatric emergency medicine).Access to CNC(1).Access to CNE(1) is desirable. Has designated Registrar(1) accredited FACEM. May have Staff Specialists in emergency medicine additional to Director. 24 hour on call emergency consultant cover. May be Area/Regional Trauma Service(2) which links with referral hospitals for tertiary level sub-specialties. Access to retrieval service. Send out teams to disaster site. 24 hour psychiatric assessment, on call. Extended hour access to allied health professionals (in particular social work services and physiotherapy)	5	5	5	3	4	5	5	4
6	As Level 5 plus has neurosurgery and cardiothoracic surgery on site. Subspecialists available on rosters. Has advanced subspecialty Registrar(1) on site 24 hours. May be designated Supra-Area Trauma Service(2). May have out-of-hours roster for Emergency Department Staff Specialists 24 hours/7 days. Capacity for management of frequent major trauma and other life threatening emergencies.  Capacity for invasive monitoring and short-term ventilation. Dedicated Nursing Director and/or NUM(1) 24 hours. A designated CNC(1) and CNE(1). Provides advice and stabilisation for complex cases transferred from other network hospitals. May provide or participate in regional retrieval service. Active research program. CT and nuclear medicine available on site.	6	6	6	5	6	6	6	6

**Terms:** Path – Pathology ; Pharm – Pharmacology; Diag Im – Diagnostic Imaging; NMed – Nuclear Medicine; Anaes – Anaesthesia; ICU – Intensive Care Unit; CCU – Coronary Care Unit; OT – Operating Theatre.



## **Appendix 8: Emergency Department service levels (ACEM)**

This overview of service levels is by the Australasian College of Emergency Medicine (2004). They acknowledge it is a framework to describe the level of function, structure and resources required for Emergency Departments to fulfil their role within the hospital setting they are within. It has some differences to the NSW Health Emergency Department Service Level document as ACEM believe there are inconsistencies within that document (ACEM 2004, p.1).

Below are descriptions provided in the ACEM document regarding metropolitan, regional and rural Emergency Departments.

### **Metropolitan**

ACEM describe a major referral Emergency Department as having the following:

#### **2.1 Structure**

Sophisticated purpose-designed area, separate resuscitation area with capacity for frequent management of major trauma and other life-threatening emergencies. Capacity for invasive monitoring and short-term assisted ventilation.

#### **2.2 Nurse Staffing**

Experienced RN's on-site 24 hours, many having completed post-basic training. Dedicated nurse educator and CNC. Dedicated Nursing Director plus Nurse Managers 24 hours.

#### **2.3 Medical Staffing**

Full-time Medical Director with specialist qualifications in Emergency Medicine, supported by extensive out-of-hours Emergency specialist cover (ideally 24 hours, 7 days). Advanced training Registrars on-site 24 hours.

#### **2.4 Patient Care**

Can provide resuscitation, stabilisation and initial treatment for all emergencies. On-site ability to provide team response. May send out teams of appropriately trained staff to disaster site.

## **2.5 Network Role**

Designated Major Trauma Service. Provides Tertiary Referral Service to other network hospitals. Provides advice and stabilisation for complex cases referred from other network hospitals. May provide or participate in regional Retrieval Service, including aeromedical service.

## **2.6 Access to Other Specialist Consultation**

Specialists in Intensive Care, Anaesthesia, Paediatrics (if mixed dept), Liaison Psychiatry, medical and surgical subspecialties available or on-call 24 hours. Rapid access to Neurosurgery and Cardiothoracic Surgery services. Extended hours access to Allied Health professionals and Social Worker.

## **2.7 Access to Support Services**

24 hour availability of pathology, radiology, CT and Operating Theatres. Ideally extended-hours access to Nuclear Medicine, Ultrasound, Interventional Radiology and MRI.

## **2.8 Other Processes**

Formal Quality Improvement program, including morbidity and mortality review. Dedicated clinical and management information system. Formal Disaster Plan. Membership of Emergency Department staff on principal hospital planning committees. Formal training program in Emergency Medicine and Nursing. Education program for staff. Undergraduate education program. Active research program.

ACEM describe a regional Emergency Department as having the following:

### **4.1 Structure**

Purpose-designed area with separate resuscitation facilities and capacity for assisted ventilation.

### **4.2 Nurse Staffing**

Experienced registered nurses on site 24 hours, some having completed post-basic studies. Dedicated NUM. Access to Clinical Nurse Educator. Access to Clinical Nurse Consultant.

### **4.3 Medical Staffing**

Full-time Medical Director with specialist qualifications in Emergency Medicine, supported by extended-hours specialist cover. Experienced medical officers, with resuscitation training, on-site 24 hours.

### **4.4 Patient Care**

Can manage all emergencies, including stabilisation and assisted ventilation, and provide definitive care for most. On-site ability to provide team response. May send out teams to disaster site.

#### **4.5 Network Role**

May be a Regional Trauma Service. Participation in regional retrieval system desirable.

#### **4.6 Access to Other Specialist Consultation**

Specialists in Intensive Care, Anaesthesia, General Surgery, General Medicine, Paediatrics, Orthopaedics and liaison Psychiatry on-call 24 hours. Access to Allied Health Professionals and Social Worker.

#### **4.7 Access to Support Services**

24 hour availability of pathology, radiology, and operating theatres. After hours on-call access to CT and angiography desirable.

#### **4.8 Other Processes**

Formal quality improvement program, including morbidity and mortality review. Dedicated clinical and management information system. Formal disaster plan. Participation of Emergency Department staff in key hospital planning committees. Access to formal training in Emergency Medicine and Nursing. Participation in undergraduate education. Staff education program. Research program desirable.

From these descriptions neither Shellharbour nor Bulli completely fit this description, but it is the best fit for both Emergency Departments.

ACEM describe a rural Emergency Department as having the following:

#### **5.1 Structure**

Designated assessment and treatment area with separate resuscitation facilities in a rural hospital.

#### **5.2 Nurse Staffing**

Designated nursing staff available 24 hrs per day, who carry out triage. Designated NUM. Some RN's having completed or undertaking relevant post-basic studies.

#### **5.3 Medical Staffing**

24 hours access to medical officers. Ideally full-time Director, preferably with specialist qualifications.

#### **5.4 Patient Care**

Manages a range of acute illness and injury, including resuscitation and limited stabilisation. Provides local trauma service, with stabilisation prior to transfer.

#### **5.5 Access to Other Specialist Consultation**

Specialists in general surgery, general medicine, Anaesthesia and Paediatrics on call 24 hours. Access to Allied Health professionals and Liaison psychiatry.

#### **5.6 Access to Support Services**

Availability of pathology, radiology and operating theatres during normal hours, on-call access after hours.

#### **5.7 Other Processes**

Formal quality improvement program.

*Within the document, the following terminology applies:*

**NUM:** Nurse Unit Manager; **CNE:** Clinical Nurse Educator; **CNC:** Clinical Nurse Consultant

The document acknowledges that terminology and roles may vary in different regions.

**Source:** ACEM 2004, *Statement on emergency department role delineation* S12, viewed 29 Aug 2009, <http://www.acem.org.au>

## **Appendix 9 – Boolean terms used to perform search**

The following methods were used:

1. Emergency Department OR Accident Emergency Department
2. Inappropriate attend\* OR General Practitioner patient/s
3. Inappropriate attend\* OR Primary care patient/s
4. Inappropriate attend\* OR Nonurgent
5. Inappropriate attend\* OR low acuity
6. Inappropriate attend\* OR General Practitioner patient/s OR Primary care patient/s OR Nonurgent OR low acuity
7. General Practitioner patient/s OR Primary care patient/s
8. General Practitioner patient/s OR Nonurgent
9. General Practitioner patient/s OR low acuity
10. Primary care patient/s OR Nonurgent OR low acuity
11. Inappropriate attend\* AND General Practitioner patient/s
12. Inappropriate attend\* AND Primary care patient/s
13. Inappropriate attend\* AND Nonurgent
14. Inappropriate attend\* AND low acuity
15. Inappropriate attend\* AND General Practitioner patient/s AND Primary care patient/s
16. Emergency Department AND Inappropriate attend\*
17. Emergency Department AND General Practitioner patient/s
18. Emergency Department AND Primary care patient/s
19. Emergency Department AND Primary care
20. Emergency Department AND Primary care presentation/s
21. Emergency Department AND Nonurgent
22. Accident Emergency Department AND Inappropriate attend\*
23. Accident Emergency Department AND General Practitioner patient/s
24. Accident Emergency Department AND Primary care patient/s
25. Accident Emergency Department AND Primary care
26. Accident Emergency Department AND Primary care presentation/s
27. Accident Emergency Department AND Nonurgent
28. Emergency Department AND General practitioner/s
29. Accident Emergency Department AND General practitioner/s

30. Health professional/s OR Emergency staff
31. Emergency Nurs\* OR Emergency physician
32. Emergency physician OR Medical officer
33. Health professional/s AND Nurs\*
34. Nurs\* AND Perception/s
35. Nurs\* AND Attitude/s
36. Health professional/s AND Perception/s
37. Health professional/s AND Attitude/s
38. Emergency physician OR Medical officer AND Perception/s
39. Emergency physician OR Medical officer AND Attitude/s
40. Nurs\* AND Perception/s AND Inappropriate attend\*
41. Nurs\* AND Perception/s AND General practitioner patient\*
42. Nurs\* AND Perception/s AND Primary care patient\*
43. Nurs\* AND Perception/s AND Nonurgent
44. Nurs\* AND Perception/s AND Low acuity
45. Nurs\* AND Attitude/s AND Inappropriate attend\*
46. Nurs\* AND Attitude/s AND General practitioner patient\*
47. Nurs\* AND Attitude/s AND Primary care patient\*
48. Nurs\* AND Attitude/s AND Nonurgent
49. Nurs\* AND Attitude/s AND Low acuity
50. Health professional/s AND Perception/s AND Inappropriate attend\* OR  
General practitioner patient\* OR Primary care patient\* OR Nonurgent OR  
Low acuity
51. Health professional/s AND Attitude/s AND Inappropriate attend\* OR  
General practitioner patient\* OR Primary care patient\* OR Nonurgent OR  
Low acuity

The researcher then combined some of these terms to further refine the search.

This included:

1 & 6

1 & 15

1 & 11

1 & 12

1 & 13

1 & 14

For office use only:

Location of ED: TWH/SHH/BDH/SDMH/MUH

## Appendix 10 Nursing Staff Questionnaire

### Illawarra Health Emergency Department (ED) Research Project

#### Survey of Emergency Department (ED) Staff

A. Please complete these details about yourself.

Male	<input type="checkbox"/>	Female	<input type="checkbox"/>	Age	_____
In which ED do you work? _____					
What position do you hold there? _____					
How long have you worked this Department? _____					
How long have you worked in ED's? _____					

For the purpose of this survey, a Primary Care

patient is defined as any patient that is given a triage category 4 or 5 who self-presents, is not a planned return visit and is unlikely to be admitted (according to the Triage nurse assessing the patient).

#### B. Why do you think patients come to the ED for primary care rather than to a GP (General Practitioner) or Medical Centre?

Please tick the box that, in your experience, best describes the importance of each of the following possible reasons that patients might use the ED for primary care needs.

	A very important reason	A moderately important reason	Not a reason
1. They believe that their health problem needs immediate attention and is too urgent to wait to see a GP or Medical Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. They believe that their health problem is too serious or complex to see a GP or Medical Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. They feel the medical treatment is better at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. They want a second opinion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. They do not want their GP or Medical Centre to know about their health problem so they come to the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. They prefer to talk to a doctor they don't know about their health problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. They are able to see a doctor and have any tests or x-rays all done in the same place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. They are not able to get in as a patient at a GP surgery due to the books being closed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. They are not happy with the time they have to wait to get an appointment with a GP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. They don't like making appointments and prefer the ED because they can attend whenever they want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. It is easier for them to get to the ED than a GP surgery or Medical Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. There is no charge to see a doctor at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. There is no charge for tests, x- rays or medicines at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. They want to see a female doctor and think they can at the ED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. They want to see a doctor or interpreter who speaks their language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. They want to be able to see Aboriginal health staff if they need to	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. They prefer to be in the ED environment than at a GP surgery or Medical Centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Their family has traditionally used the ED for all their health care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. They do not know how to contact After Hours GP services or Medical Centres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C. Would you like to make any comments on why, in your experience, primary care patients come to the ED instead of a GP .

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## Appendix 11 Letter accompanying questionnaire to nursing staff

### Illawarra Emergency Department (ED) Research Project Information Sheet for Nursing Staff

Researcher: Rebekkah Middleton

15<sup>th</sup> April 2004

This research project is part of a larger study that is being conducted jointly by Emergency Illawarra and the Centre for Health Service Development at the University of Wollongong. This project aims to determine what emergency nurses believe are the reasons that primary care patients attend an ED for care instead of a General Practitioner or Medical Centre.

The study then aims to make comparisons between nurses of different demographical data to see if there are any differences between nurses in their beliefs about primary care patients. The study will also compare the responses of emergency nurses with those primary care patients currently undertaking questionnaires within the larger Parent Study.

For the purpose of this questionnaire, a primary care patient is **any patient given a triage category 4 or 5 who self-presents, is not a planned return visit, and is unlikely to be admitted according to the Triage nurse assessing the patient.**

The confidentiality of participants in the questionnaire will be maintained as no names are recorded. The results from all questionnaires will be collected and reported on as a group – there will be no individual reporting on questionnaires. Storage of questionnaires will be in locked filing cabinets and computer data will be stored on a password protected computer.

Your participation in this questionnaire is voluntary – you are free to refuse to complete the questionnaire and you are free to withdraw your results at any time. Your refusal to participate or withdrawal of consent will not affect your relationship with Emergency Illawarra, the Area Health Service or with the researcher.

It is expected that completion of the questionnaire will take no longer than 10 minutes. If you would like to discuss this research further, please contact me on (02)42225079. If you have any questions regarding the conduct of the research please contact the Secretary of the University of Wollongong Human Research Ethics Committee on (02)42214457.

I would be grateful if you could complete the questionnaire and return it to me via internal mail c/- Wollongong ED, or by external mail c/- Wollongong ED Private Mail Bag 8808, South Coast Mail Centre 2521.

Thankyou, Rebekkah Middleton

## Appendix 12 Ethics (Amendment) letter of confirmation

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University of Wollongong



**AMENDMENT – APPROVAL  
- IAHS AUTHORISATION**

**In reply please quote: RN:ES HE02/034**  
Further Enquiries Eve Steinke (Ph: 4221 4457)

10 February 2004

Ms Sue Cragg  
Centre for Health Service Development  
University of Wollongong

Dear Ms Cragg,

I am pleased to advise that amendments dated 15 December 2003 to the following Human Research Ethics application have been **approved**. **A copy of this advice has been forwarded to the IAHS from whom you will need authorisation to proceed.**

Ethics Number: HE02/034

Project Title: Why do patients attend hospital emergency departments or primary care services?

Name of Researchers: Prof A Tsoi, Ms Susan Cragg, Ms Janette Green, Dr Natasha Posner, Mr Malcolm Masso, Sr Denise Reedy, Sr Rebekkah Middleton

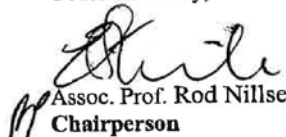
Amendment Approval Date: 23 January 2004

Date for Renewal: 19 March 2004

This certificate relates to the research protocol submitted in your original application and includes all approved amendments to date.

Please note that the Committee must review research projects of long duration annually and it will be necessary for you to apply for renewal of this application if this project is to continue beyond one year.

Yours Sincerely,

  
Assoc. Prof. Rod Nillsen  
Chairperson  
Human Research Ethics Committee

cc. Prof. Anthony Hodgson, IAHS

**Appendix 13: Statistical significance of responses from various departments using Chi Square test**

<b>Question</b>	<b><i>p</i> value</b>	<b>Degrees of Freedom</b>	<b>Chi Squared value</b>
<b>1</b>	0.072	4	8.60
<b>2</b>	0.057	4	9.15
<b>3</b>	0.414	4	3.94
<b>4</b>	0.735	4	2.00
<b>5</b>	0.585	4	2.84
<b>6</b>	0.380	4	4.19
<b>7</b>	<b>0.008</b>	4	13.92
<b>8</b>	0.049	4	9.54
<b>9</b>	<b>0.003</b>	4	16.00
<b>10</b>	0.414	4	3.94
<b>11</b>	0.803	4	1.63
<b>12</b>	0.647	4	2.49
<b>13</b>	0.464	4	3.59
<b>14</b>	0.151	4	6.73
<b>15</b>	<b>0.026</b>	4	11.08
<b>16</b>	0.099	4	7.79
<b>17</b>	0.047	4	9.63
<b>18</b>	0.363	4	4.33
<b>19</b>	0.096	4	7.88

**Appendix 14: Statistical significance of responses from various nursing positions using Chi Square test**

<b>Question</b>	<b><i>p</i> value</b>	<b>Degrees of Freedom</b>	<b>Chi Squared value</b>
<b>1</b>	0.560	2	1.16
<b>2</b>	0.780	2	0.50
<b>3</b>	0.197	2	3.24
<b>4</b>	0.297	2	2.43
<b>5</b>	0.352	2	2.09
<b>6</b>	0.075	2	5.18
<b>7</b>	0.980	2	0.04
<b>8</b>	0.505	2	1.37
<b>9</b>	0.613	2	0.98
<b>10</b>	0.193	2	3.29
<b>11</b>	<b>0.036</b>	2	6.66
<b>12</b>	<b>0.012</b>	2	8.84
<b>13</b>	0.165	2	3.60
<b>14</b>	0.873	2	0.27
<b>15</b>	0.128	2	4.11
<b>16</b>	0.192	2	3.30
<b>17</b>	0.314	2	2.32
<b>18</b>	0.527	2	1.28
<b>19</b>	0.331	2	2.21

**Appendix 15: Statistical significance of responses from various nursing experience (in years) using Chi Square test**

Question	<i>p</i> value	Degrees of Freedom	Chi Squared value
1	0.561	4	2.98
2	0.404	4	4.01
3	0.236	4	5.54
4	0.276	4	5.11
5	0.389	4	4.13
6	0.054	4	9.31
7	0.553	4	3.03
8	0.264	4	5.23
9	<b>0.029</b>	4	10.81
10	0.198	4	6.01
11	0.177	4	6.32
12	0.105	4	7.66
13	0.157	4	6.63
14	0.269	4	5.19
15	0.260	4	5.28
16	0.253	4	5.36
17	0.190	4	6.12
18	0.947	4	0.74
19	<b>0.003</b>	4	15.90

## **Appendix 16: Section 5 of Findings**

### **Section 5: Data comparing nursing staff age and gender**

#### **Similarities and differences between responses of nursing staff within the different age and gender groups**

##### **Ranking of responses (Age)**

A ranking of 'very important' reasons that nurses of various ages in the Emergency Departments believed possible primary care patients seek Emergency Department care is demonstrated in the Table 11 below. Table 11 presents the 'very important' reasons under the headings of: nurses less than forty years of age, nurses forty to forty nine years of age, and nurses aged fifty plus. As with all previous tables of the most highly ranked responses, a response rate of over 66% of respondents saying an item was a 'very important' reason was judged by the researcher as 'significant'. Those rankings highlighted in red relate to those cases where responses exceeded the 66% 'very important' level.

**Table 11: The most highly ranked ‘very important’ reasons for all questions within the questionnaire, across the three age categories of emergency nurses**

Question	<40 (39)	40-49 (35)	50+ (19)
<b>Q.12 No charge to see a doctor at the ED</b>	2 (67%)	1 (89%)	1 (79%)
<b>Q.13 No charge for X-rays or medicine at the ED</b>	1 (72%)	2 (86%)	2 (74%)
<b>Q.8 Not able to get in as a patient at a GP surgery as the books are closed</b>	4 (54%)	3 (69%)	3 (58%)
<b>Q.7 See doctor and have all tests and x-rays in same place</b>	2 (67%)	5 (46%)	5 (42%)
<b>Q.1 Health problem urgent</b>	5 (49%)	7 (31%)	7 (32%)
<b>Q.9 Not happy with wait to get appointment with GP</b>	6 (46%)	4 (51%)	6 (37%)
<b>Q.10 Don't like making appointments, attend ED when want to</b>	7 (28%)	6 (34%)	4 (47%)

### **Ranking of responses (Gender)**

The most highly ranked ‘very important’ responses according to gender are outlined in Table 12 below.

**Table 12: The most highly ranked ‘very important’ reasons for all questions within the questionnaire, across the two genders of emergency nurses**

Question	Males (20)	Females (73)
<b>Q.12 No charge to see a doctor at the ED</b>	1 70%	1 80%
<b>Q.13 No charge for X-rays or medicine at the ED</b>	1 70%	1 80%
<b>Q.8 Not able to get in as a patient at a GP surgery as the books are closed</b>	3 60%	3 60%
<b>Q.7 See doctor and have all tests and x-rays in same place</b>	4 50%	4 55%
<b>Q.1 Health problem urgent</b>	4 50%	6 36%
<b>Q.9 Not happy with wait to get appointment with GP</b>	4 50%	5 45%

### **Summary of ranking of responses for age and gender**

As evidenced in other sections, Questions 12 and 13 showed extraordinary consistency – seen in the rating of top 2 reasons across all age groups and both genders **and** at levels where at least 66% of respondents had labelled them as ‘very important’. These items related to there being no charge for a doctor or for services in Emergency Departments. Tables 11 and 12 above therefore suggest that emergency nurses of any age or gender believed possible primary care patients come to an Emergency Department because they want free service and adjuncts to treatment such as x-rays and medication. This is evident from the minimum response rate of 67% of nursing staff indicating these two questions to be ‘very important’ reasons they thought possible primary care patients attend an Emergency Department rather than a General Practitioner or Medical Centre. So, irrespective of age or gender, this data suggests that these emergency nurses considered possible primary care patients come to an Emergency Department for care because it is free.



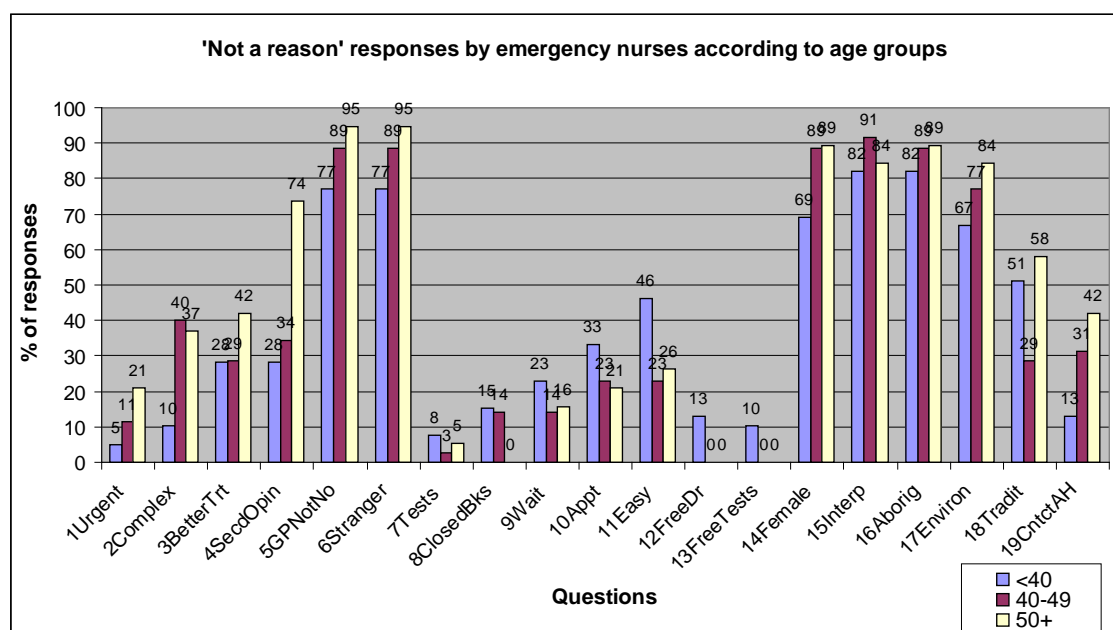
Although the rankings for both age and gender groups were very similar, some minor differences were revealed. The researcher wanted to determine whether there was any significance of difference and so a chi square test was performed. The results of the Chi Square test are tabled later in this section.

### **Comparison of emergency nurses 'not a reason' responses (age)**

The responses of the nurses of different ages were analysed in terms of what they deemed to be 'not a reason' for possible primary care patients choosing to present to an Emergency Department. The results of this analysis are seen in Figure 19 below.

The following figure is represented as a bar graph where nursing responses of the age group less than forty forms the first column, nursing responses from the age group forty to forty nine the second column, and nursing responses from the fifty plus age group the third column.

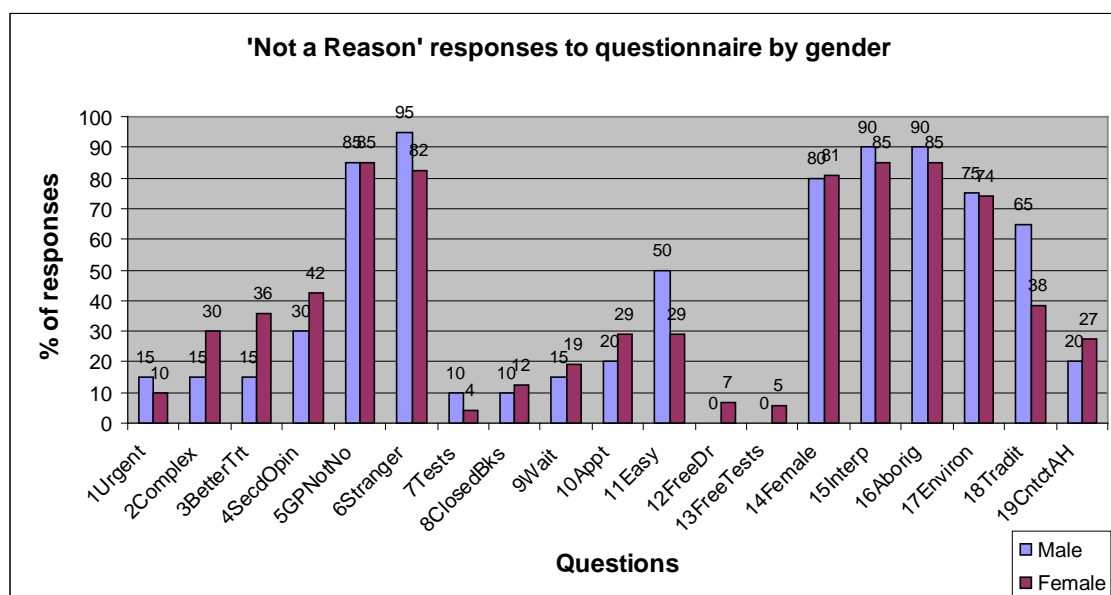
**Figure 19: Percentage of ‘not a reason’ responses for all questions within the questionnaire across the different age groups**



### **Comparison of emergency nurses ‘not a reason’ responses (gender)**

The responses of the nurses of different genders were analysed in terms of what they deemed to be ‘not a reason’ for possible primary care patients choosing to present to an Emergency Department. The results of this analysis are seen in Figure 20 below. The figure is represented as a bar graph where male nursing responses form the first column and female nursing responses form the second column.

**Figure 20: Percentage of 'not a reason' responses for all questions within the questionnaire for male and female responses**



Both Figures 19 and 20 show agreement amongst nursing staff of any age group or gender in what they considered to be 'not a reason' that possible primary care patients choose to present to an Emergency Department for care. The consensus occurred in three questions relating to anonymity (questions 5, 6 and 17) – question 5 (did not want my General Practitioner to know about my health problem); question 6 (prefer to talk to a doctor I don't know); and question 17 (prefer the Emergency Department environment to a General Practitioner surgery or Medical Centre). The agreement also occurred in three questions describing additional services the patient may want that are not available in the general practice arena (questions 14, 15 and 16) – question 14 (wanted to see a female doctor and I thought I could at the Emergency Department), question 15 (wanted to see a doctor or interpreter who speaks my language) and question 16 (wanted to be able to see Aboriginal health staff if I needed to). This series of responses ('not a reason') indicate a great level of consistency across nursing staff of all ages and either gender working in Emergency Departments within the former Illawarra Health Service.

However, there were some variant 'not a reason' responses when age was examined. Nursing staff in the less than forty years of age group had a markedly

lower 'not a reason' response rate to question 2 (health problem too serious or complex to see a General Practitioner or Medical Centre, including after hours) with only 10% of this age group indicating they did not believe it was a reason for possible primary care patients coming to the Emergency Department for treatment. The other two age groups had four times this number of 'not a reason' responses (40% for 40-49 years group and 37% for 50 plus age group). Although none of these response numbers are high, they show a variation in degree of opinion concerning patient beliefs about the seriousness or complexity of their condition. Perhaps the younger nurses had received more recent education concerning patient perceptions during their training at university and so were more empathetic with patients.

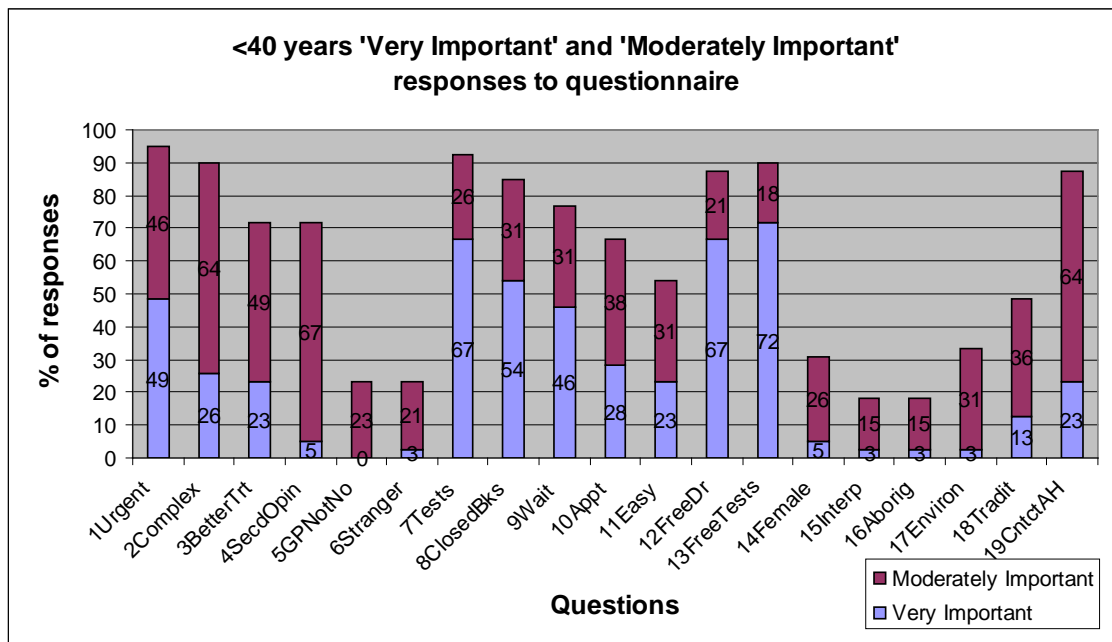
Another difference that stands out in the 'not reason' responses for various age groups is reflected in the fifty plus age group in their responses to question four (wanted a second opinion). Those aged under fifty years of age had small numbers of responses to this question, approximately 30% of responses indicated they did not consider this reason important to possible primary care patients when choosing whether to attend an Emergency Department. By marked contrast, the fifty plus age group had 74% of responses expressing they did not believe this a valid reason for this patient group to go to an Emergency Department. Why the other two age groups didn't respond as highly is unknown.

### **'Very important' and 'moderately important' combined responses by nurses of various ages and different gender**

Tables 11 and 12 identified the 'very important' reasons recorded by nursing staff of different age groups and gender. The researcher wanted to determine whether these reasons remained consistent when 'moderately important' reasons were shared with 'very important' reasons (indicating some form of importance) for the groups. The results of these combined 'very important' and 'moderately important' responses across the various ages are seen in the Figures 21, 22 and 23 below. The results of the combined 'very important' and 'moderately important' responses for the two genders are seen in the Figures 24 and 25 below. The figures are presented in the form of a stacked column graph where the contribution of each level of importance ('very important' and 'moderately important') is compared to the total across both categories.

## Combined 'very important' and 'moderately important' responses across the age categories

**Figure 21: Emergency nurses aged less than forty years combined 'very important' and 'moderately important' responses to questions on the questionnaire**



Previously in Table 11 it was identified that emergency nurses aged less than forty years considered the most important reasons possible primary care patients presented to the Emergency Department were due to the free and centralised service provision the Emergency Department offers (with questions 7, 12 and 13 having greater than 66% of responses). Figure 21 shows an additional eight reasons identified by this age group as holding some importance (when a response rate of 66% is taken as meaningful). These concern reasons of perceived urgency or complexity by the patient (questions 1 and 2, 95% and 90% of combined responses); Emergency Department service being better (questions 3 and 4, 72% for both combined responses); and other questions concerning access to General Practitioner services (questions 8, 9, 10 and 19, 85%, 77%, 66% and 87% of combined responses).

Figure 22 below demonstrates in a stacked column graph the combined 'very important' and 'moderately important' responses to the questionnaire by nursing staff aged between forty and forty nine years. It shows each level of importance ('very important' and 'moderately important') compared to the total across both categories.

**Figure 22: Emergency nurses aged forty to forty nine years combined 'very important' and 'moderately important' responses to questions on the questionnaire**

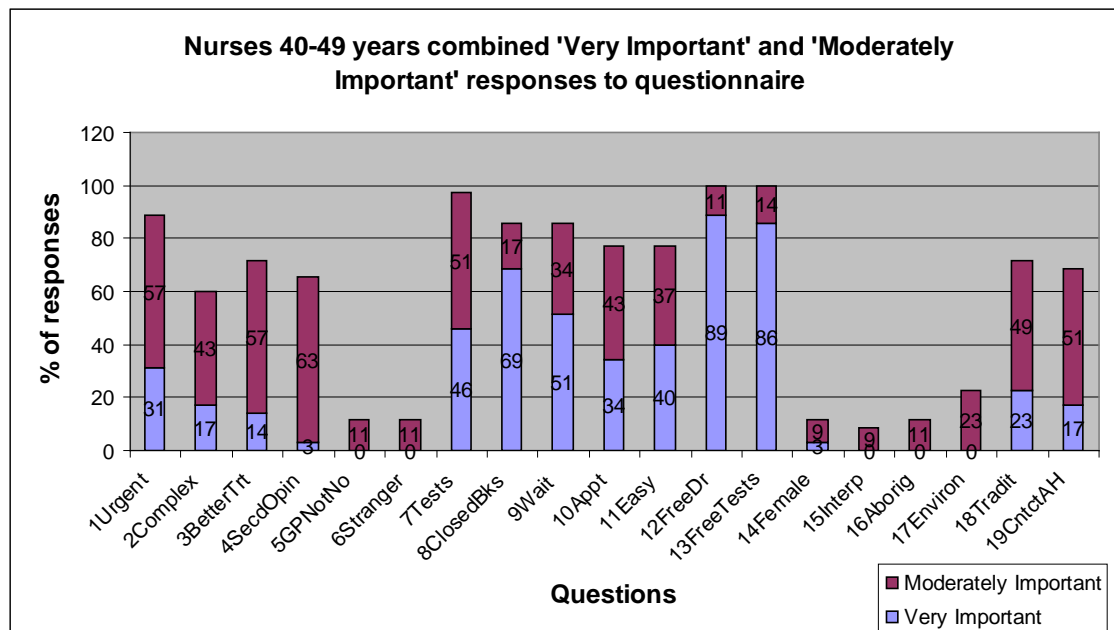
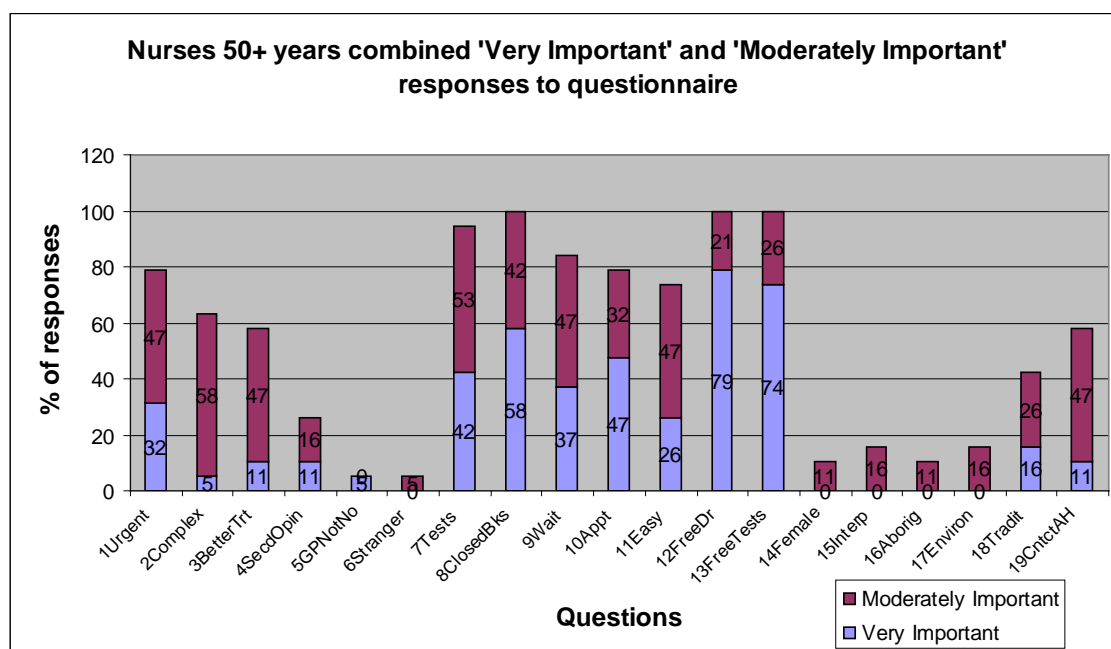


Figure 23 below demonstrates the combined 'very important' and 'moderately important' responses by nursing staff aged fifty plus years to the questionnaire. In the stacked column graph below the contribution of each level of importance ('very important' and 'moderately important') is compared to the total across both categories.

**Figure 23: Emergency nurses aged fifty plus years combined ‘very important’ and ‘moderately important’ responses to questions on the questionnaire**



**Comparison of emergency nurses’ responses for the three age groups (less than forty, forty to forty nine, and fifty plus) of combined ‘very important’ and ‘moderately important’ responses**

When comparing the combined ‘very important’ and ‘moderately important’ responses between the three age groups of Emergency Department nursing staff, the key element is consensus found only in questions 12 and 13 relating to free service delivery.

Other patterns that emerge are as follows. The emergency nurses aged forty to forty nine and those aged less than forty years had agreement in eight questions when ‘moderately important’ responses were added to ‘very important’ responses, indicating some level of importance as to why they thought possible primary care patients attend an Emergency Department rather than a General Practitioner or Medical Centre. Both these groups of emergency nurses showed agreement in considering that possible primary care patients came to the Emergency Department due to clinical urgency (question 1), better provision of treatment (question 3),

receiving a second opinion (question 4), receiving all care in one place (question 7), being unable to access General Practitioner services (questions 8 and 9), being easier for the patient (question 10), and the patient having a lack of knowledge in how to access after hours General Practitioner services (question 19).

By combining 'very important' and 'moderately important' responses by nursing staff aged less than forty years and between forty and forty nine, it seems that many reasons become important to these groups as an indicator of potential reasons that possible primary care patients may attend an Emergency Department for treatment. This was indicated by more than 66% of nursing staff deeming some level of importance to those eight questions.

These additional questions can be linked by considering that, broadly speaking, they concern patient acuity or lack of General Practitioner access. Agreement that patient acuity holds some level of importance can be seen through the strong accord in questions relating to patients perception of illness and the role of the Emergency Department. For example, question 3 relating to receiving better treatment in an Emergency Department, and question 4 concerning the need for a second opinion from Emergency Department staff. Difficult access to General Practitioner services is evidenced through questions 8, 9 and 10 receiving high numbers of responses by these groups of nurses aged less than fifty years.

Overall there appears to be a lack of a common theme emerging from the responses of the nurses aged less than fifty years. It is possible that they may be clear about why they think possible primary care patients come to an Emergency Department individually, but lack a group consensus. The agreement occurs only in relation to the delivery of free service(s) and the convenience of central services, both of which scored so highly in the 'very important' responses.

Maintaining that 66% of responses to a question is meaningful, the emergency nurses aged fifty plus years maintained a fairly strong focus on key reasons they thought possible primary care patients attended an Emergency Department, with only six additional questions standing out as generally important when 'moderately important' were added to 'very important' responses. These were question 1



(perceived urgency by the patient), question 7 (central service provision), questions 8 and 9 (inability to access timely General Practitioner care) and questions 10 and 11 (convenience). These additional questions matched the other age groups of emergency nurses' responses, apart from question 11, again demonstrating a general consistency in responses across nursing staff. So it is apparent that emergency nurses, aside from free service delivery, consider that possible primary care patients choose to come to an Emergency Department rather than a General Practitioner or Medical Centre because all services are central, access is easy, and patients consider their condition to be urgent. It is unknown if this perceived sense of urgency by patients is shared by emergency nurses.

Interestingly, these more focused responses (when compared with the younger age groups) honed in on central service provision that could be more easily accessed in the Emergency Department by a group of patients who considered their condition too urgent to wait for a General Practitioner appointment that was either difficult or impossible to get. The key question that stood apart was question 8 which received 100% of responses from this age group when 'very important' and 'moderately important' responses were combined. Such consensus was remarkable.

The fifty plus age group had three (3) questions where 100% of respondents agreed the question had some degree of importance in influencing possible primary care patients' decisions about coming to the Emergency Department. This occurred in questions 8 (inability to access General Practitioner services), 12 and 13 (free service delivery). Such consensus occurred in the forty to forty nine year age group concerning questions 12 and 13 only, regarding lack of cost for services. Those aged less than forty years did not have any questions where 100% agreement occurred in relation to importance. However, the highest agreement occurred in question 1 (condition too urgent to wait to see a General Practitioner or Medical Centre) with 97% of respondents in this age bracket considering this important, followed by 90% agreement concerning question 13 (free services).

Overall four themes emerged when responses by emergency nurses of various ages were examined in regard to what they considered important for possible primary care patients when choosing to attend an Emergency Department rather than a General

Practitioner or Medical Centre. Free service was paramount to all settings as identified through the 'very important' responses (questions 12 and 13). Other themes were perceived patient urgency (question 1), central treatment (question 7) and difficulty in accessing General Practitioner services (questions 8, 9, 10).

### Combined 'very important' and 'moderately important' responses according to gender

Figure 24 below displays the combined 'very important' and 'moderately important' responses by male nursing staff to the questionnaire. In the stacked column graph below the contribution of each level of importance ('very important' and 'moderately important') is compared to the total across both categories.

**Figure 24: Male emergency nurses combined 'very important' and 'moderately important' responses to questions on the questionnaire**

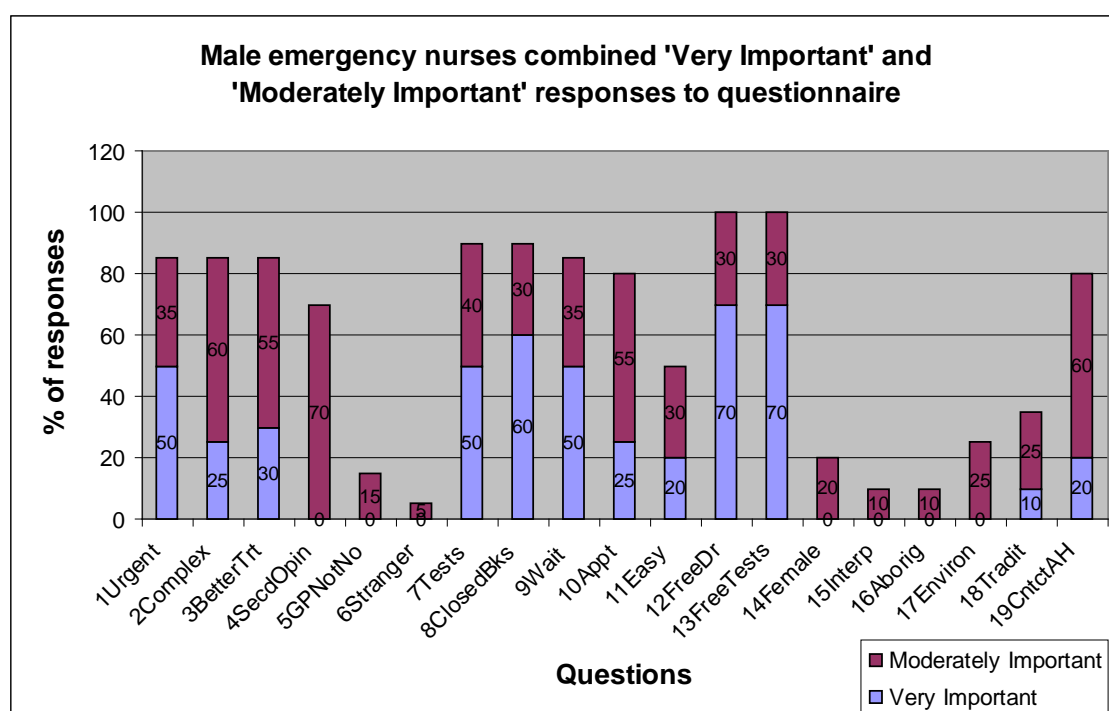
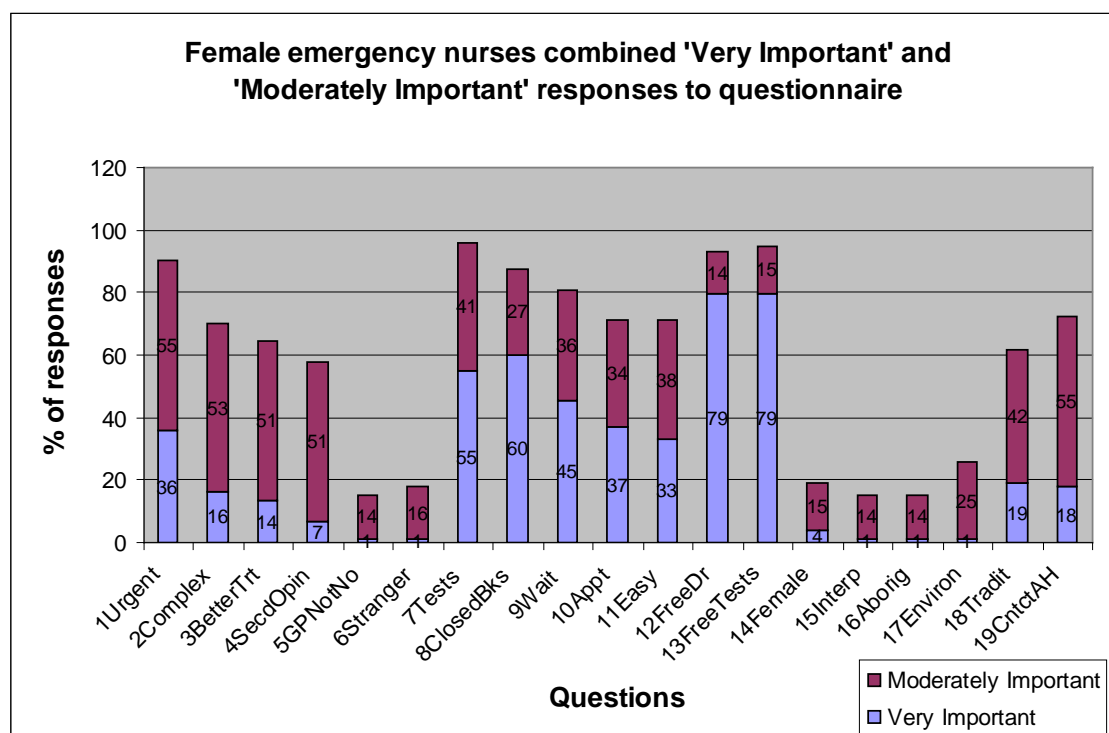


Figure 25 below displays the combined ‘very important’ and ‘moderately important’ responses by female nursing staff to the questionnaire. In the stacked column graph below the contribution of each level of importance (‘very important’ and ‘moderately important’) is compared to the total across both categories.

**Figure 25: Female emergency nurses combined ‘very important’ and ‘moderately important’ responses**



### Comparison of male and female emergency nurses’ responses of combined ‘very important’ and ‘moderately important’ responses

When comparing the combined ‘very important’ and ‘moderately important’ responses between the two groups (male and female emergency nurses), there are patterns that emerge. Both male and female emergency nurses considered primarily that free and central service delivery was the paramount reason for possible primary care patients choosing to come to an Emergency Department rather than a General Practitioner or Medical Centre, with greater than 90% of the respondents indicating these were important. Strong agreement between male and female nursing staff was evident in the questions relating to General Practitioner access (questions 8, 9, 10, 11 and 19), and in questions pertaining to acuity (questions 1 and 2 regarding

perceived urgency and complexity by patients). The male nursing staff considered questions 3 and 4 important (better treatment in Emergency Department and patients seeking a second opinion) whereas the female emergency nurses did not respond as highly to these questions. Female emergency nurses showed agreement in question 11 (easy to access Emergency Department rather than General Practitioner), but male emergency nurses had much lower agreement concerning this question influencing a possible primary care patient to come to an Emergency Department instead of a General Practitioner or Medical Centre.

In summary, all emergency nurses irrespective of their gender agreed that important reasons for possible primary care patients when making a decision about where to seek medical treatment was due to cost (questions 12 and 13), ease (question 7), access (including after hours) (questions 8, 9, 10 and 19), and clinical urgency or complexity (questions 1 and 2).

### **Chi Square testing for significant differences in nursing responses from varying ages**

When the data were examined, some trends were apparent in responses between the three age groups of emergency nurses. It was decided to apply a Chi Square test to see if these trends held any statistical significance. For the purpose of sufficient numbers for analysis, those nurses aged less than forty years were combined; those aged forty to forty nine years were joined; and those nurses aged fifty plus formed a group. These groupings occurred this way since the majority of nursing staff employed in Emergency Departments at the time of the questionnaire were in the age group forty to forty nine (35). This number of nurses formed one third of the total number who completed the questionnaire (93) so it was the most obvious approach to then take those outside this age bracket and form two other groups. This grouping maximised reliability when the chi square test was applied to the data.

Table 13 below shows all results obtained when the Chi Square test was performed. The results where significance was found are in bold font.

**Table 13: Chi Square testing for significant differences in nursing responses from varying ages**

Question	<i>p</i> value	Degrees of Freedom	Chi Squared value
1	0.261	4	5.26
2	<b>0.022</b>	4	11.45
3	0.609	4	2.70
4	<b>0.004</b>	4	15.11
5	0.048	4	9.59
6	0.363	4	4.34
7	0.151	4	6.72
8	0.167	4	6.46
9	0.655	4	2.44
10	0.588	4	2.82
11	0.185	4	6.19
12	0.057	4	9.16
13	0.135	4	7.02
14	0.203	4	5.95
15	0.663	4	2.40
16	0.766	4	1.84
17	0.522	4	3.22
18	0.198	4	6.01
19	0.140	4	6.92

To elicit the responses where statistical significance was shown, Table 14 below highlights the two questions where it was shown.

**Table 14: Responses where statistical significance of difference occurred when the three age groups were compared**

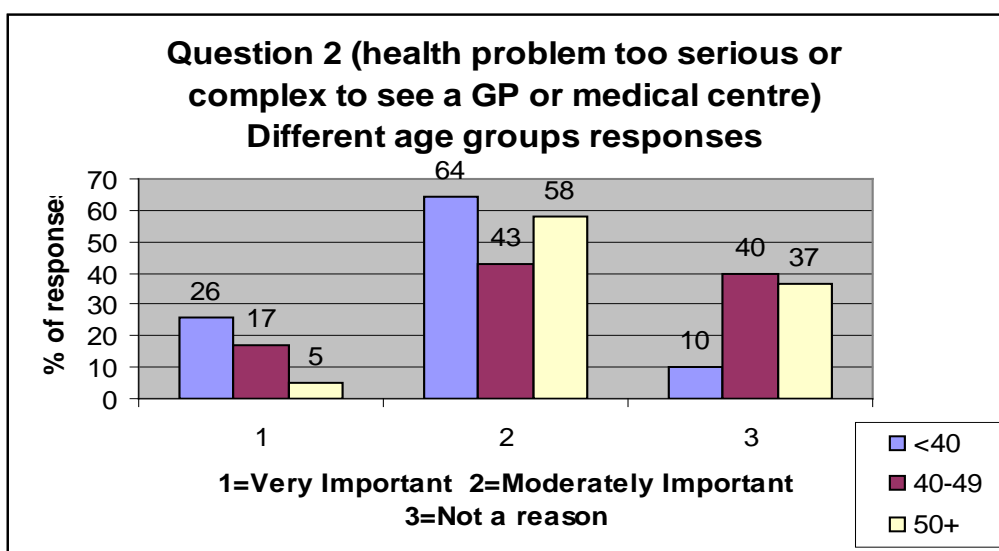
Question Number (from questionnaire)	<i>p</i> value	Degrees of Freedom	Chi Squared value
2	0.022*	4	11.45
4	0.004***	4	15.11

\* is equivalent to 0.05; \*\* is equivalent to 0.01; and \*\*\* is equivalent to 0.001.

Significant  $p$  values occurred in the questions 2 and 4. These are graphed in Figures 26 and 27 to illustrate where the variance in results occurred.

Figure 26 presents a bar graph indicating the percentage of responses to question 2 (health problem too serious or complex to see a General Practitioner or Medical Centre, including after hours) by nursing staff aged less than forty years, forty to forty nine years, and fifty plus years. It is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

**Figure 26: Question 2 (health problem too serious or complex to see a General Practitioner or Medical Centre, including after hours) results for nurses aged less than forty years, forty to forty nine years and fifty plus years**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - Less than forty years = 26%;
  - Forty to forty nine years = 17%;
  - Fifty plus years = 5%
- Moderately important responses
  - Less than forty years = 64%;
  - Forty to forty nine years = 43%;
  - Fifty plus years = 58%

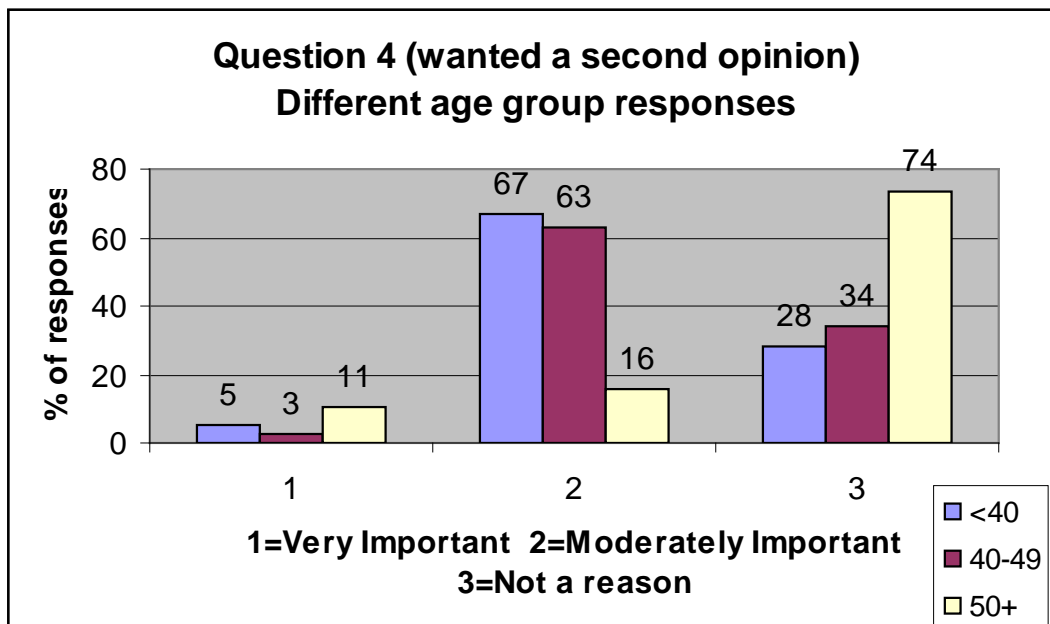
- Not a reason responses
  - Less than forty years = 10%;
  - Forty to forty nine years = 40%;
  - Fifty plus years = 37%

Figure 26 demonstrates that the significant difference shown through the  $p$  value ( $p < 0.05$ ) was determined by the emergency nurses aged less than forty responses to this question being significantly different to those of their colleagues that were older than them in regards to possible primary care patients believing their condition to be complex and hence requiring Emergency Department treatment (question 2).

Therefore it is apparent that emergency nurses aged less than forty years believed that possible primary care patients do consider their condition to be serious or complex and thus warranting Emergency Department treatment, and so do not base their decision to present to the Emergency Department around this factor. This is evident in the high numbers of 'very important' and 'moderately important' responses from this group.

The second question where significance was demonstrated through Chi Square testing was question 4 (wanted a second opinion). The following bar graph (Figure 27) presents where variance in responses by nurses occurred for this question between the three age groups. It is broken into three categories where one (1) represents 'very important' responses by nursing staff, two (2) represents 'moderately important' responses by nursing staff, and three (3) represents 'not a reason' as indicated by nursing staff.

**Figure 27: Question 4 (wanted a second opinion) results for nurses aged less than forty years, forty to forty nine years and fifty plus years**



In breaking down the responses the following percentages were obtained:

- Very important responses
  - Less than forty years = 5%;
  - Forty to forty nine years = 3%;
  - Fifty plus years = 11%
- Moderately important responses
  - Less than forty years = 67%;
  - Forty to forty nine years = 63%;
  - Fifty plus years = 16%
- Not a reason responses
  - Less than forty years = 28%;
  - Forty to forty nine years = 34%;
  - Fifty plus years = 74%

It seems from Figure 27 that emergency nurses aged less than fifty years thought that patients wanted a second opinion was a 'moderately important' reason for possible primary care patients when choosing to come to an Emergency Department for treatment. On the other hand, emergency nurses older than fifty years demonstrated that they did not think that possible primary care patients thought this



to be a reason when choosing to come to an Emergency Department for care as demonstrated by the considerably lower percentage of 'moderately important' responses and the markedly higher 'not a reason' responses.

Figure 27 demonstrates that the significant difference shown through the  $p$  value ( $p < 0.05$ ) was determined by the emergency nurses aged fifty plus responses to this question being significantly different to those of their colleagues that were younger than them in regards to possible primary care patients wanting a second opinion and so choosing to come to the Emergency Department (question 4). Older emergency nurses (aged fifty plus) tended not to consider that possible primary care patients deemed this reason as 'moderately important'. They thought it was 'not a reason' for patients presenting for treatment to an Emergency Department.

Therefore it seems that emergency nurses aged fifty plus years believed that possible primary care patients do not want a second opinion, and so do not base their decision to present to the Emergency Department around this factor.

In summary, two questions demonstrated significant differences among the three age groups of emergency nurses in their perceptions of why possible primary care patients choose to come to an Emergency Department. These were questions 2 (health problem too serious or complex to see a General Practitioner or Medical Centre, including after hours), and question 4 (wanted a second opinion). Both of these questions address acuity issues that either necessitate initial treatment at an Emergency Department or follow up as the patient believes they need this.

Therefore one of the important findings was that emergency nurses of less than forty years of age considered that possible primary care patients choose to come to an Emergency Department as they believe their condition is too serious or complex for treatment by a General Practitioner or Medical Centre. This is seen by the high response rate of this age group in 'very important' and 'moderately important' responses and the considerably lower response rate than the other age groups in the 'not a reason' response. The other two age groups had similar response rates to this question. They had fairly even 'moderately important' and 'not a reason' responses for this question, and low numbers of 'very important' responses.

The other important finding from these results showed that nurses aged fifty plus did not consider that possible primary care patients may want a second opinion and hence choose the Emergency Department for care, as shown through the high number of 'not a reason' responses. The other two age groups rated this reason as 'moderately important' more highly than the other options. The difference in responses between the older nurses aged fifty plus and the other two groups was marked in both 'moderately important' and 'not a reason' responses.

### **Chi Square testing for significant differences in male and female nursing responses**

When the data were examined, there was little difference noted in responses between the two genders of emergency nurses. Even so, it was decided to apply a Chi Square test to see if any statistical significance was to found in the data. Chi Square testing was performed on all nineteen questions within the questionnaire. This is below in Table 15, showing all results obtained when the Chi Square test was performed.

**Table 15: Statistical significance of difference for responses when gender was compared**

<b>Question</b>	<b><i>p</i> value</b>	<b>Degrees of Freedom</b>	<b>Chi Squared value</b>
<b>1</b>	0.289	2	2.48
<b>2</b>	0.351	2	2.09
<b>3</b>	0.099	2	4.62
<b>4</b>	0.218	2	3.05
<b>5</b>	0.864	2	0.29
<b>6</b>	0.359	2	2.05
<b>7</b>	0.581	2	1.08
<b>8</b>	0.946	2	0.11
<b>9</b>	0.892	2	0.23
<b>10</b>	0.240	2	2.85
<b>11</b>	0.193	2	3.29
<b>12</b>	0.137	2	3.98
<b>13</b>	0.203	2	3.19
<b>14</b>	0.589	2	1.06
<b>15</b>	0.784	2	0.49
<b>16</b>	0.784	2	0.49
<b>17</b>	0.871	2	0.28
<b>18</b>	0.104	2	4.53
<b>19</b>	0.798	2	0.45

There were no results that showed any significance of difference when the Chi Square test was applied to compare the responses by male and female nursing staff.

## **Summary and Conclusion of comparison of emergency nurses responses of different age groups and gender**

In summary then, there is a great deal of agreement amongst emergency nurses of various age groups and genders. Very little difference is evidenced between emergency nursing staff of any age or sex in their responses to why they consider possible primary care patients attend an Emergency Department for treatment rather than a General Practitioner or Medical Centre. All agreed that they perceived that cost is the main factor that possible primary care patients consider when making their decisions to attend an Emergency Department for care.

When 'very important' responses were considered alone, consistency was evident between the different age groups and genders of emergency nursing staff. Emergency nursing staff clearly felt strongly about particular reasons they thought possible primary care patients attend an Emergency Department. This is evidenced by the each age group having only two or three questions where greater than 66% of nursing staff agreed on the importance of the reason.

When 'moderately important' reasons were added to the responses, consensus remained among the emergency nurses of various ages and gender, with another five reasons being considered by the nurses as reasons that possible primary care patients come to an Emergency Department. In addition to free service delivery, these focused on patient perception of acuity and sense of urgency, central service provision and primary care access.

The Chi Square data indicated that the older nurses (fifty plus) did not agree with the other age groups of emergency nurses that it was 'moderately important' to possible primary care patients coming to an Emergency Department that they can get a second opinion. The Chi Square test also indicated that younger emergency nurses (less than forty years) thought that possible primary care patients often believed their condition was too serious or complex for care outside an Emergency Department and so this perception by patients was a large factor in why they choose to come to an Emergency Department – with very high numbers of responses indicating it to be

either a 'very important' or 'moderately important' reason, and very few nurses in this group stating it was 'not a reason' for this patient population to attend the Emergency Department. The other two age groups were more evenly spread over the three categories of responses and so the emergency nurses less than forty stood out in terms of their 'not a reason' response rate.

There was no significance of difference between the genders when the Chi Square test was applied to the data.

In the main, the most common reasons identified by emergency nurses that possible primary care patients come to an Emergency Department are for reasons associated with cost of service delivery. The key theme that emerged from the comparison between the three age groups and the two genders of emergency nurses was that the vast majority of emergency nurses who responded to the questionnaire considered possible primary care patients wanted an all encompassing service that was free and hence came to an Emergency Department rather than a General Practitioner or Medical Centre.

## Appendix 17: Comparison of all 'very important' patient and nurse responses to the questionnaire

Question number	Question	Patients (%)	Nurses (%)
1	My health problem required immediate attention and was too urgent to wait to see a GP or Medical Centre	68.0	38.7
2	My health problem was too serious or complex to see a GP or Medical Centre, including after hours	38.5	18.3
3	I feel the medical treatment is better at the ED	15.5	17.2
4	I wanted a second opinion	5.8	5.4
5	I did not want my GP to know about this particular health problem so I came to the ED	1.6	1.1
6	I usually prefer to talk a doctor I don't know about my health problems	3.4	1.1
7	I am able to see the doctor and have any tests or X-rays all done in the same place at the ED	51.9	53.8
8	I am not able to get in as a patient at a GP surgery as the books are closed	7.7	60.2
9	I am not happy with the time I have to wait to get to an appointment with a GP	12.7	46.2
10	I do not like making appointments and prefer the ED as I can attend when I want	4.2	34.4
11	It is easier for me to get to the ED than a GP surgery or Medical Centre	8.5	30.1
12	There is no charge to see a doctor at the ED	2.9	77.4

<b>13</b>	There is no charge for X-rays or medicine at the ED	3.5	77.4
<b>14</b>	I wanted to see a female doctor and thought I could at the ED	0.5	3.2
<b>15</b>	I wanted to see a doctor or interpreter who speaks my language	0.8	1.1
<b>16</b>	I wanted to be able to see Aboriginal health staff if I needed to	1.3	1.1
<b>17</b>	I prefer to be able to be in the ED environment than at a GP surgery or Medical Centre	1.3	1.1
<b>18</b>	My family has traditionally used the ED for our health care	2.6	17.2
<b>19</b>	I don't know how to contact after hours medical services	8.6	18.3

## Appendix 18: Important reasons ('very important' + 'moderately important') for attending an Emergency Department for primary care identified by patients and nurses

The table below combines 'very important' and 'moderately important' responses to each individual question and provides a percentage indicating differences between the two groups of respondents (nurses and patients).

Question No.	Question	Patients (%)	Nurses (%)
1	My health problem required immediate attention and was too urgent to wait to see a GP or Medical Centre	81.4	89.2
2	My health problem was too serious or complex to see a GP or Medical Centre, including after hours	53.8	73.1
3	I feel the medical treatment is better at the ED	34.7	68.8
4	I wanted a second opinion	13.5	60.2
5	I did not want my GP to know about this particular health problem so I came to the ED	2.4	15.1
6	I usually prefer to talk a doctor I don't know about my health problems	5.6	15.1
7	I am able to see the doctor and have any tests or X-rays all done in the same place at the ED	75.1	94.6
8	I am not able to get in as a patient at a GP surgery as the books are closed	16.1	88.2
9	I am not happy with the time I have to wait to get to an appointment with a GP	24.7	81.7
10	I do not like making appointments and prefer the ED as I can attend when I want	12.2	73.1
11	It is easier for me to get to the ED than a GP	21.7	66.7



	surgery or Medical Centre		
<b>12</b>	There is no charge to see a doctor at the ED	9.3	94.6
<b>13</b>	There is no charge for X-rays or medicine at the ED	10.4	95.7
<b>14</b>	I wanted to see a female doctor and thought I could at the ED	2.1	19.4
<b>15</b>	I wanted to see a doctor or interpreter who speaks my language	2.4	14.0
<b>16</b>	I wanted to be able to see Aboriginal health staff if I needed to	2.4	14.0
<b>17</b>	I prefer to be able to be in the ED environment than at a GP surgery or Medical Centre	5.6	25.8
<b>18</b>	My family has traditionally used the ED for our health care	8.7	55.9
<b>19</b>	I don't know how to contact after hours medical services	18.0	74.2

This table demonstrates how nursing staff responses are noticeably different to patient responses. When 'very important' and 'moderately important' reasons are considered together, differences between patient and nursing responses are considerably different for every one of the 19 reasons indicating that patients were more definite in why they chose to present to the Emergency Department but nursing staff are not particularly clear in establishing definitive reasons that patients choose to attend an Emergency Department rather than a General Practitioner or Medical Centre.

As can be seen from the table above, the three main reasons (Q1, Q7, Q2) identified by patients for attending Emergency Departments were also identified by many nurses. These three reasons stand out from the range of responses by patients but they do not stand out from the responses by nurses who consider these to be only three of many important reasons why possible primary care patients attend Emergency Departments.

Questions 8, 9, 10 and 11 sought responses on the availability of General Practitioner services and comparison between attending Emergency Department rather than a General Practitioner. Few patients identified these as important reasons for attending the Emergency Department, with the highest proportion being 24% (48/382 identified this as 'very important' and 45/382 as 'moderately important') for the time to wait for an appointment to see a General Practitioner. By comparison, over 60% of nurses identified each of these four reasons as important.