

**APPENDIX 8 – WCDHB SUSTAINABILITY
PROJECT – EMERGENCY DEPARTMENT
PRESENTATIONS**

Emergency
Department
Presentations

July 2006 – May 2008

West Coast District Health Board

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Introduction

The following data is presented from the Emergency Department Presentations for West Coast District Health Board between 1 July 2006 – 31 May 2008. It should be noted that there may be some coding errors in the source data.

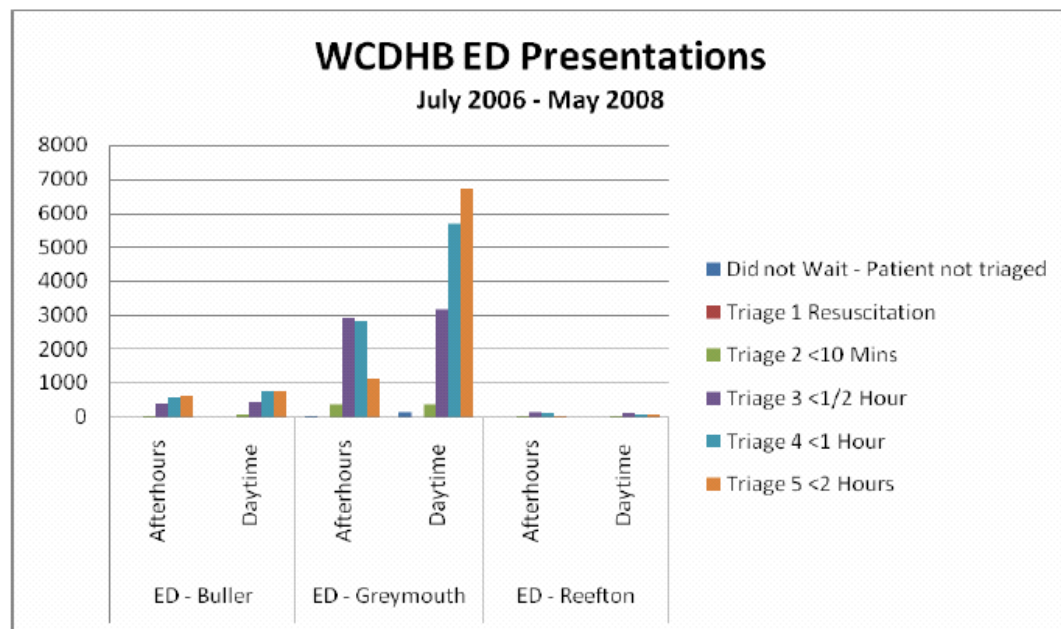
Presentations by Emergency Department

There are three Emergency Department's within West Coast DHB (Grey Hospital, Buller and Reefton Hospitals). Grey Base hospital saw 85 percent of all presentations whilst Buller saw 13 percent and Reefton saw 2 percent. Overall, there were 27,591 presentations in the period between 1 July 2006 and 31 May 2008 (approximately 14395 presentations per year).

There were more day time presentations than after hour's presentations.

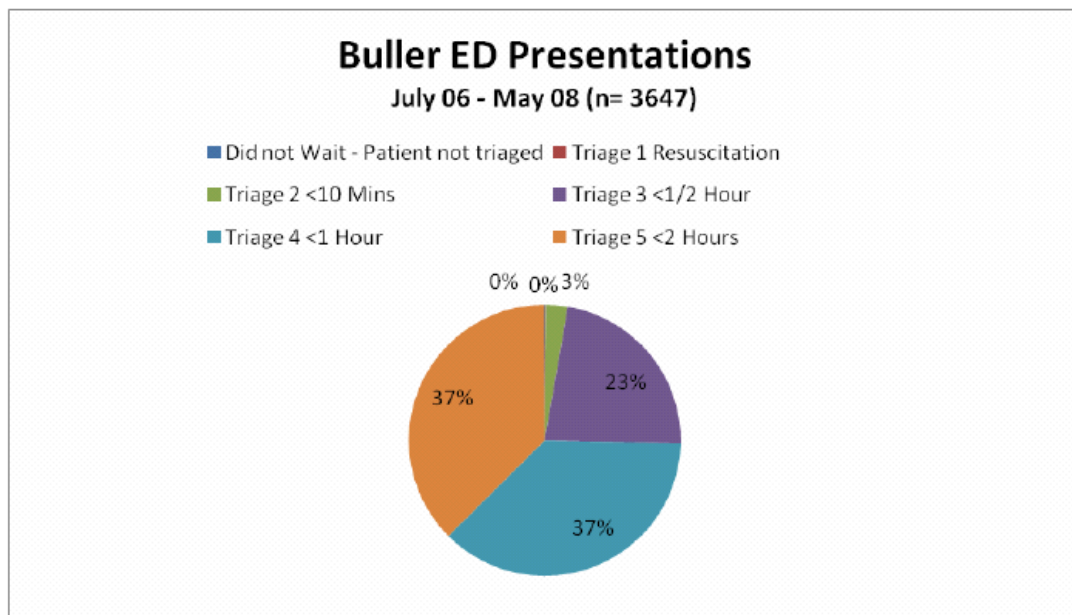
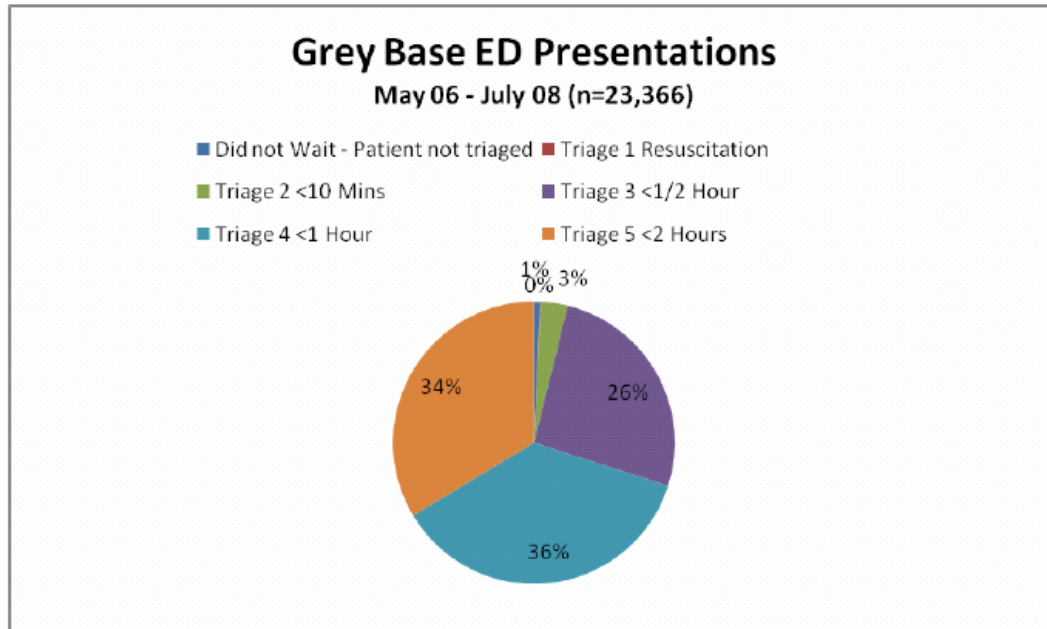
Emergency Department	Number of presentations	Percentage
Grey After Hours	7283	31
Grey Day Time	16083	69
Buller After Hours	1589	44
Buller Day Time	2058	56
Reefton After Hours	284	49
Reefton Day Time	294	51

There were 17 triage level 1 presentations in the period July 2006 – May 2008. Fifteen were at Grey Hospital whilst the 7 were at Buller Hospital and 1 at Reefton Hospital. There were 876 triage level 2 presentations in the same period. Overall, 70 percent of all presentations were triage level 4 or 5. Given the population that each of these emergency departments serves, the data suggests a high attendance of triage level 4 or 5 patients for each region.



Presentations by Triage Level and Emergency Department

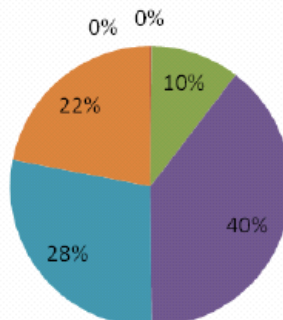
The following charts provide more detailed information by each emergency department.



Reefton ED Presentations

July 06 - May 08 (n = 528)

- Did not Wait - Patient not triaged
- Triage 1 Resuscitation
- Triage 2 <10 Mins
- Triage 3 <1/2 Hour
- Triage 4 <1 Hour
- Triage 5 <2 Hours



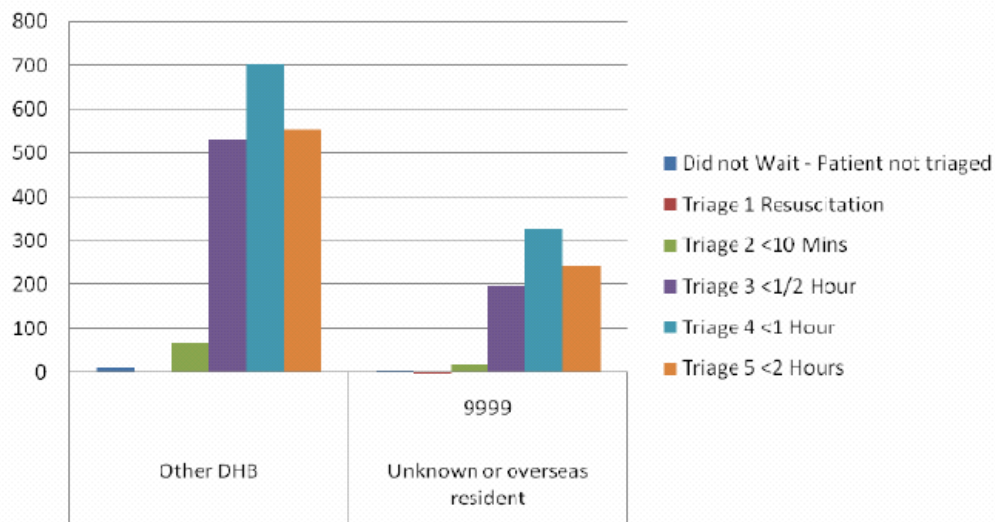
Non West Coast Residents

There were 2652 presentations of people not resident in the West Coast. Seventy percent (1860) were residents from other District Health Boards whilst the remaining 30 percent were from overseas or their residence status was unknown.

Sixty percent were triage level 4 or 5. Twenty seven percent were triage level 3 and 3 percent were triage level 2. There was no triage level 1's in this period for this sub-set of patients.

ED Presentations

July 06 - May 08 (WCDHB) - Non West Coast Residents

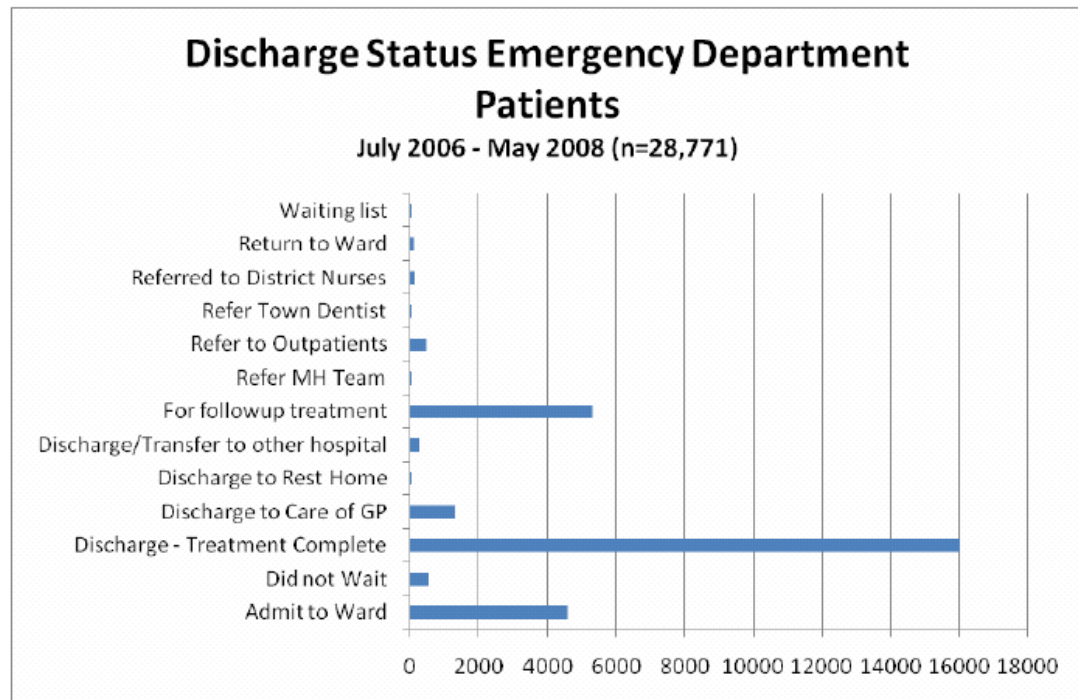


Discharge Status

Of the 28771 patients presenting to an emergency department between the period July 2006 and May 2008, 56 percent were discharged home with treatment completed. An additional 2 percent did not wait to be assessed.

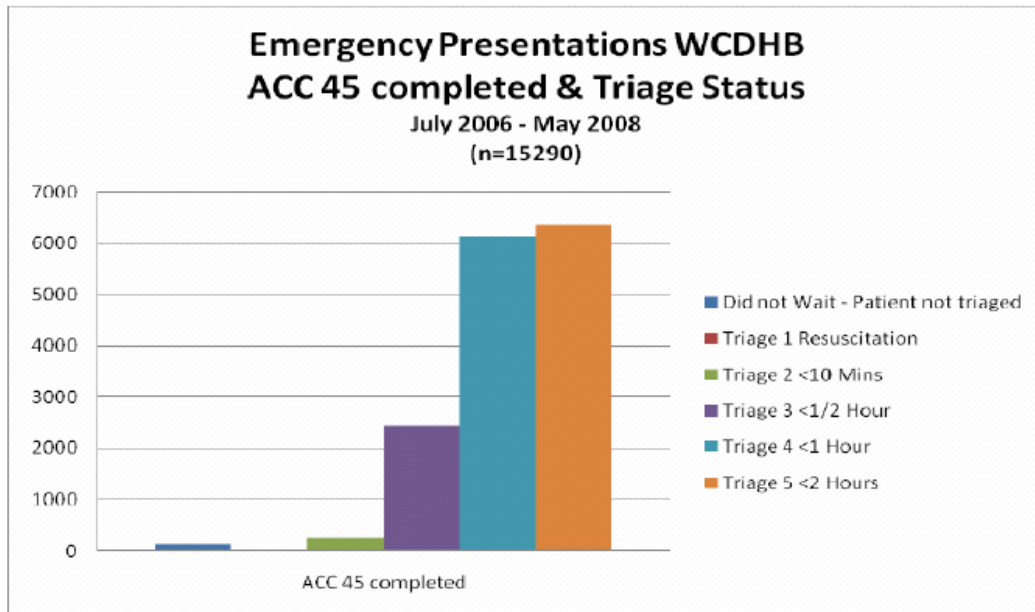
Sixteen percent were admitted to a ward within West Coast District Health Board. One percent were discharged or transferred to another hospital (7 patients of which 2 were transferred to Grey Hospital – 1 from Reefton and 1 from Buller; 4 patients were discharged to Christchurch Hospital and 1 to Nelson Hospital).

Twenty one percent (5983 patients) were referred for further treatment to District Nursing Services, Mental Health Services, Outpatients or for Dental Care.



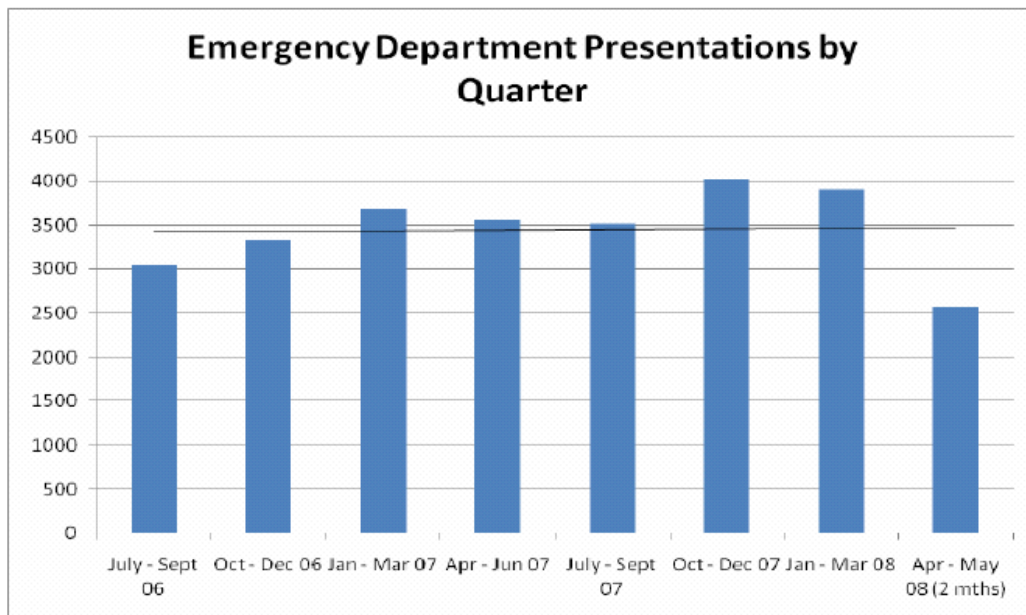
ACC Status

Of the 28771 presentations, 53 percent were ACC claimants. Eighty-one percent were triage level 4 or 5.



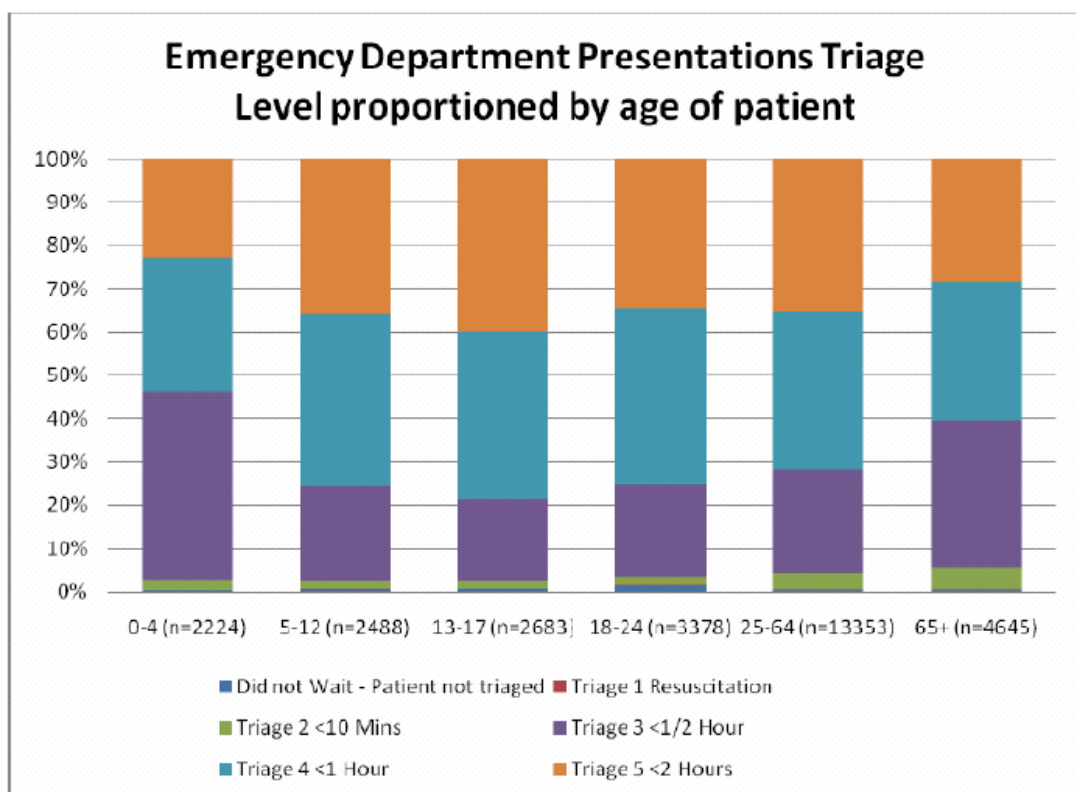
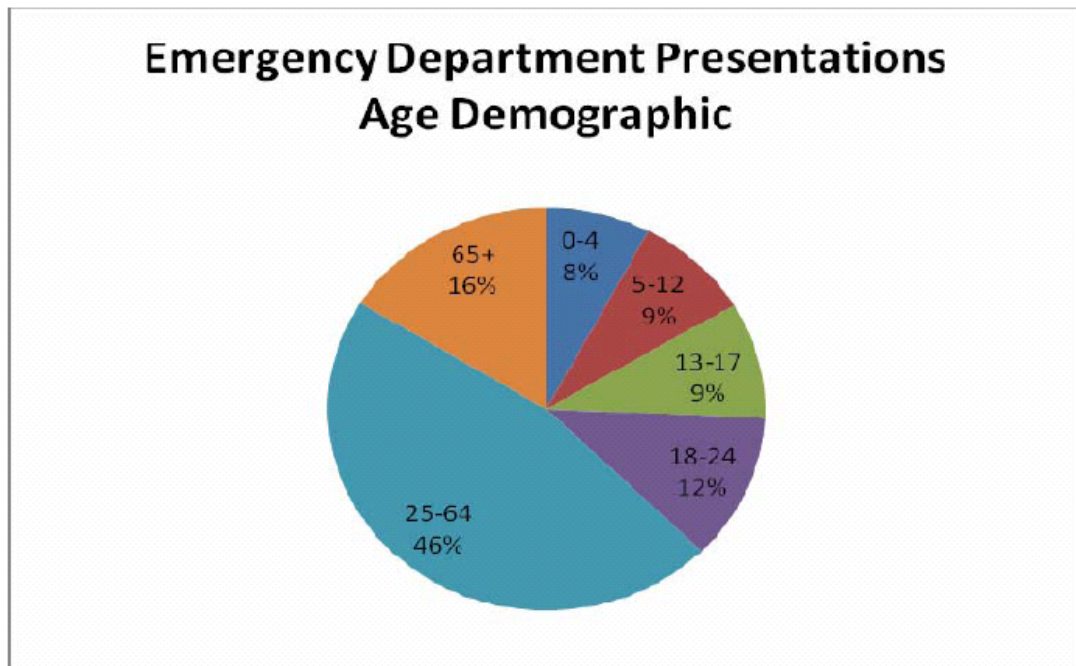
Trend by quarter

The following graph indicates a trend of approximately 3500 presentations per quarter. Note the last quarter is incomplete being two months and not three.



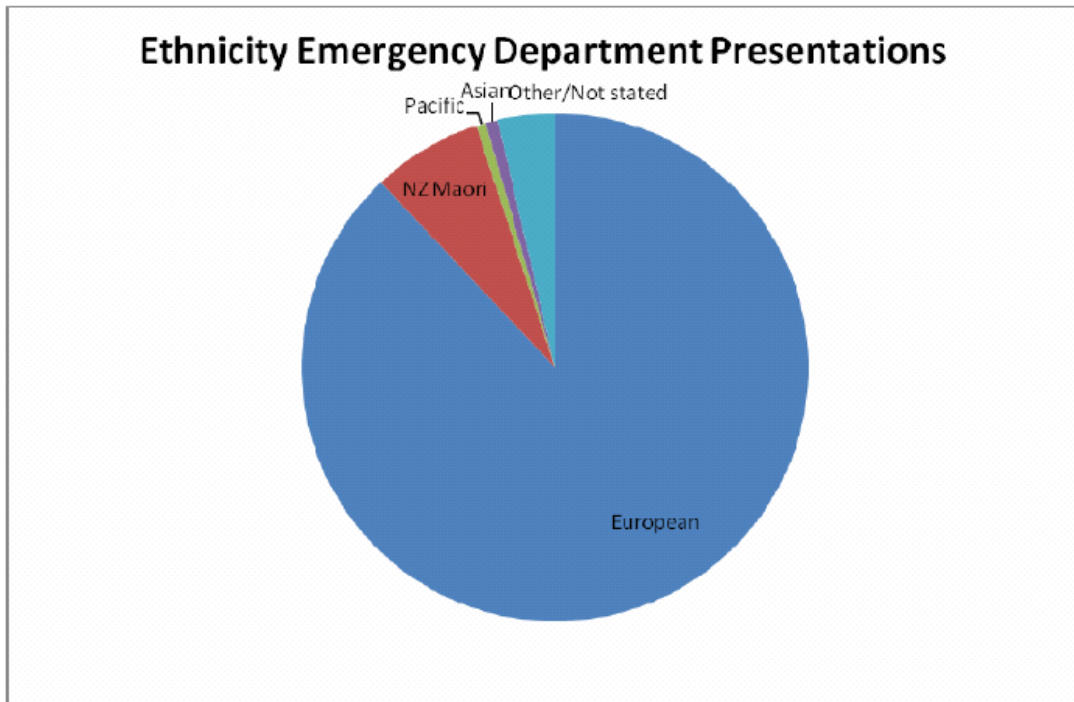
Age

Seventy four percent of people presenting to the emergency department are adults (over the age of 18).



Ethnicity

Eighty-eight percent of presentations were European (European, NZ European, European not further defined), 7 percent were NZ Maori.



**APPENDIX 9 – WCDHB SUSTAINABILITY
PROJECT – INPATIENT DATA**

Inpatient data review

July 2006 – May 2008

West Coast District Health Board

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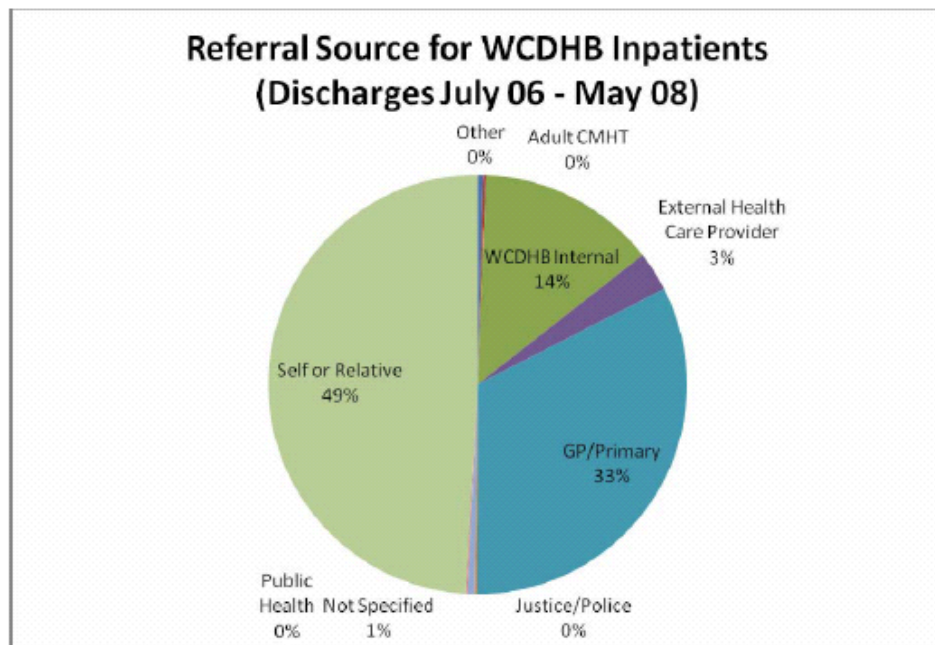
Introduction

The following data is presented from the Inpatient Data Extract for West Coast District Health Board patients discharged between 1 July 2006 – 31 May 2008. This data excludes Emergency Department presentations which have been analysed separately.¹ This data also excludes outpatients as the data is recorded separately elsewhere.

The data base provided by the DHB has been partially cleansed to remove exact duplicates in every data field. There were 13743 entries in the original data extract and 12176 in the cleansed data set used for the analysis that is presented. It should be noted that there may be some coding errors in the source data as there are still duplicate event numbers in the data set used which are not an exact match so have not been excluded from the analysis.

Referral Source

Of the 12176 entries in the data base, 14 percent were people aged 0-14, 51 percent 17-64 years and 35 percent 65-98 years. Forty-nine percent of referrals were self or relative referrals.

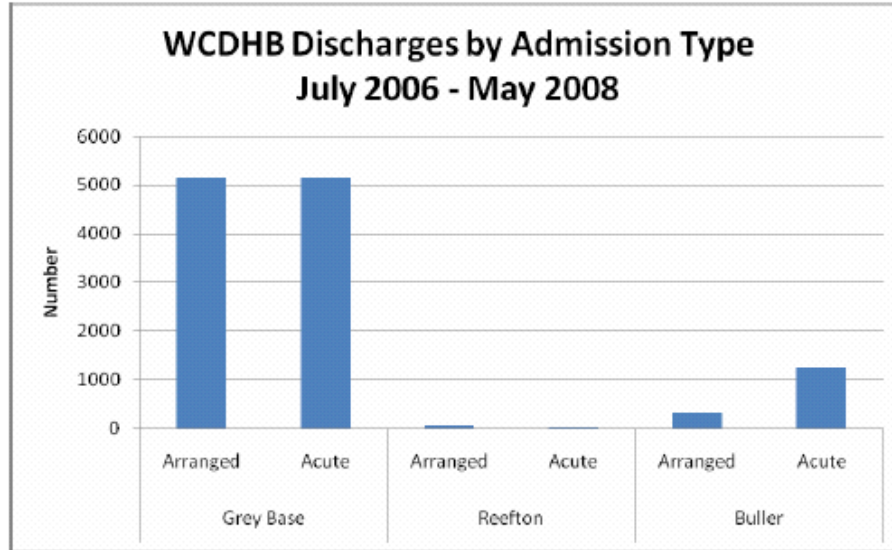


¹ Refer Emergency Presentations Document July 06 – May 08

Admission characteristics

Discharging hospital

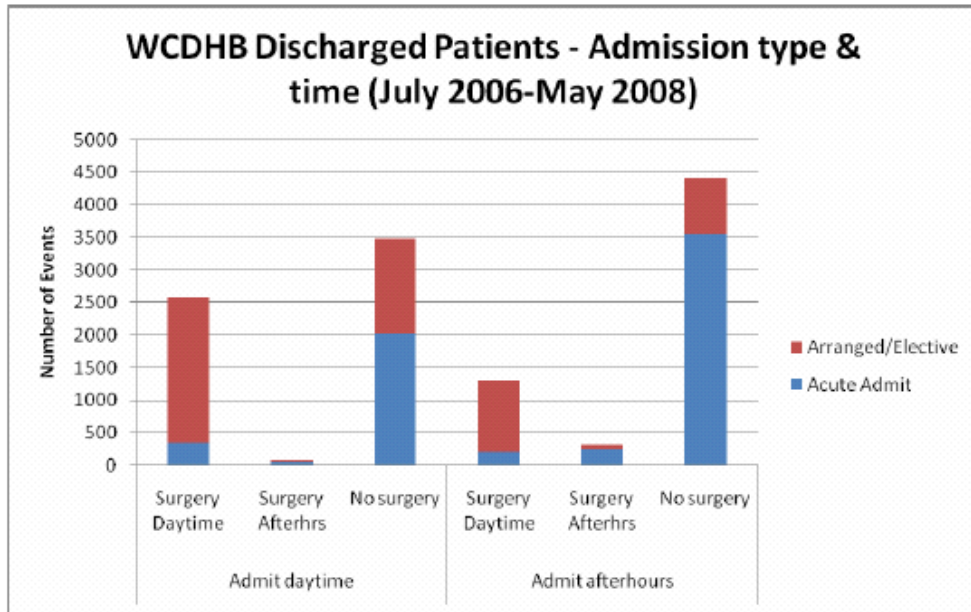
Eighty-six percent of admissions were to Grey Base Hospital, 13 percent to Buller and 1 percent to Reefton. Whilst 50 percent of all admissions to Grey Hospital were acute admissions, 80 percent of all admissions to Buller Hospital were acute admissions and 44 percent admissions to Reefton Hospital were acute admissions. This trend is consistent when data was also analysed by quarter.



Surgery and admission

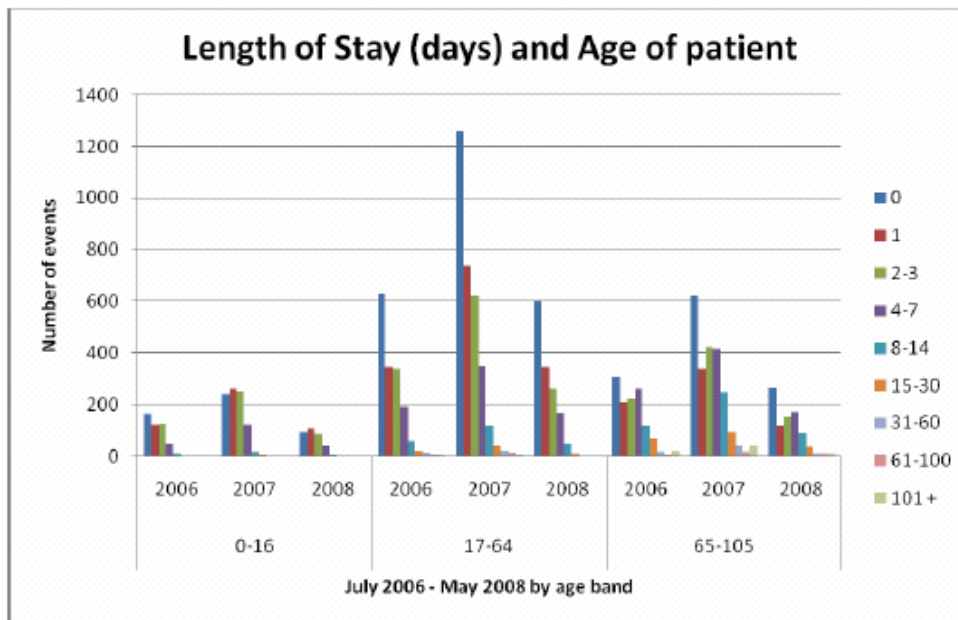
The relationship between time of admission² and type of admission and surgery is shown below. Thirty-five percent of patients had surgery of which 3 percent occurred after hours. Fifty-three percent of admissions to West Coast DHB were acute admissions.

² After hours is defined as 1800 – 0800 hours, weekends and public holidays



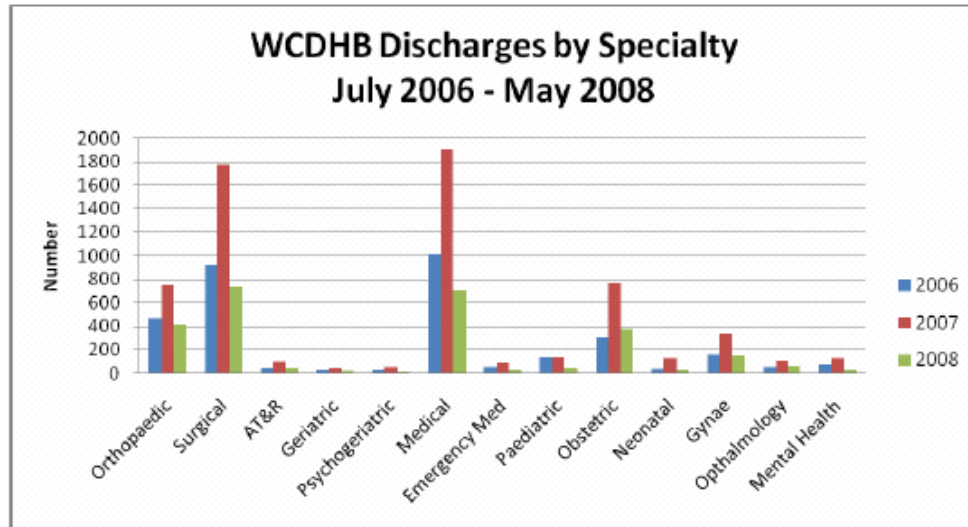
Length of Stay

The average length of stay is 7 days (0 - 3590). The median length of stay is 1 day. The trend in the graph below is consistent when analysed by quarter.

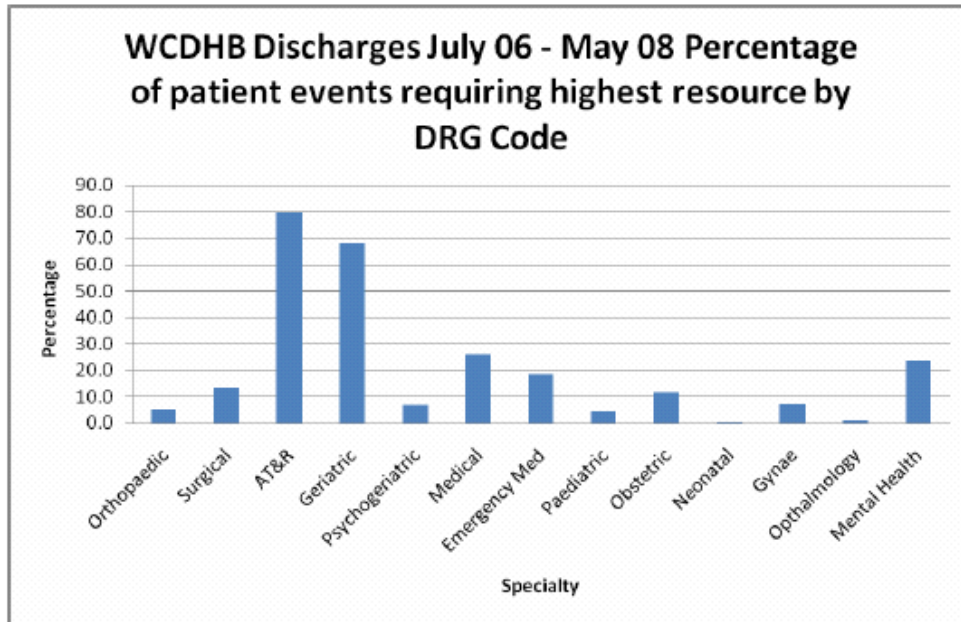


Specialty

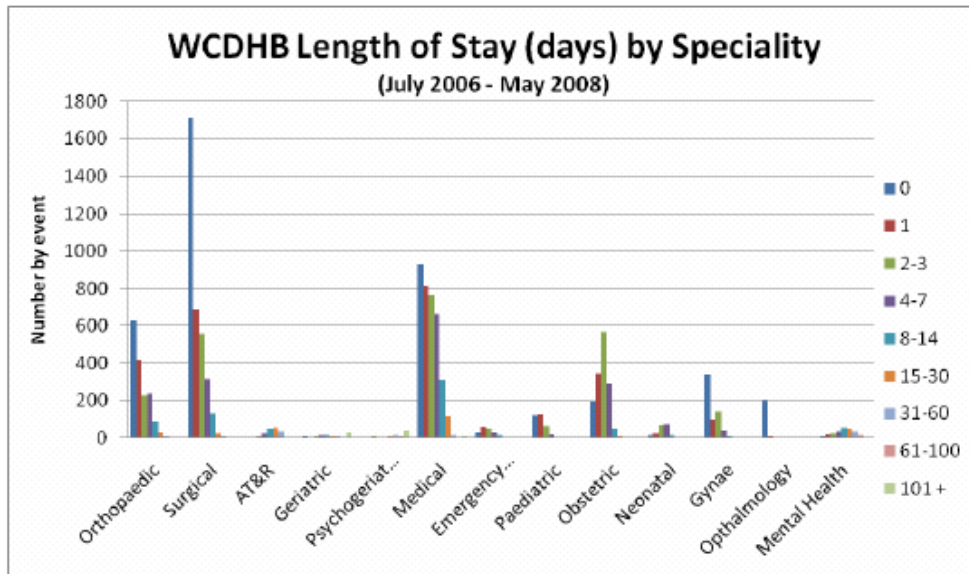
Data was analysed by specialty grouping specialty codes (national data set). This found that in 2007 30 percent of admissions were medical, 28 percent surgical, 12 percent obstetric, 2 percent paediatric, 1 percent emergency medicine, 5 percent gynaecology, 2 percent neonatal, 2 percent ophthalmology 2 percent mental health, 2 percent AT&R and 1 percent geriatric.



Further analysis by specialty was undertaken that considered acuity of patients by DRG (diagnostic group, national data set). Where entries had been categorised as needing the highest resource (suffix A of a DRG) it was found that significantly more resource is used for AT&R and geriatric patients as shown in the graph below.

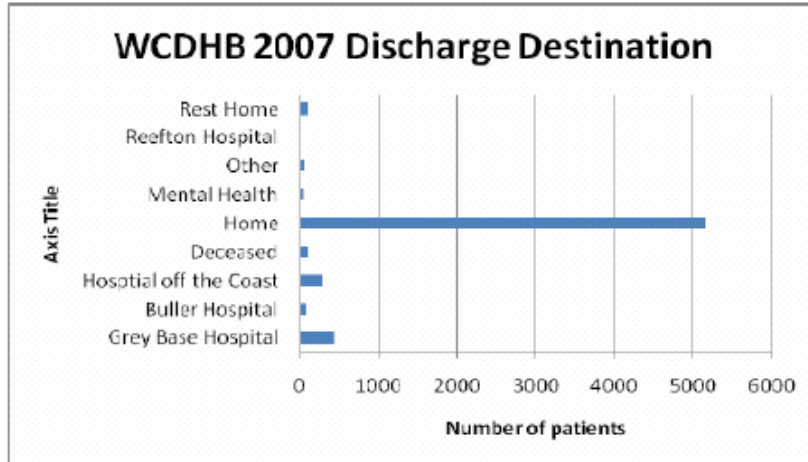


The length of stay by specialty found that surgical patients had the shortest overall length of stay. This can in part be attributed to day surgery. Paediatric admissions also had a short length of stay with approximately 40 percent being day cases.

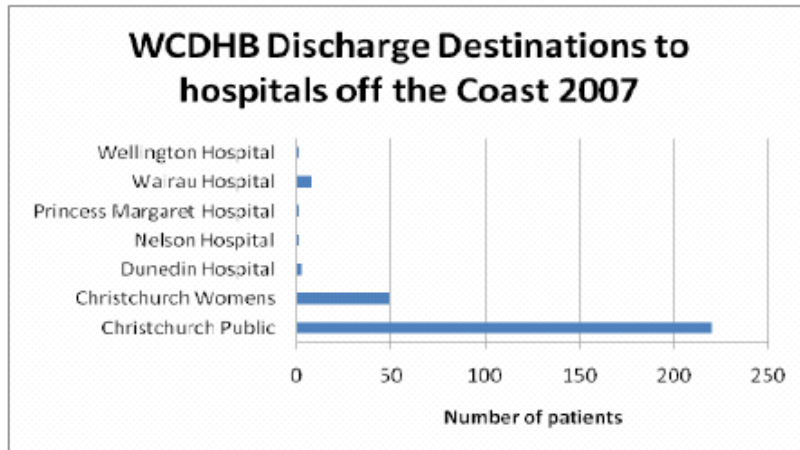


Discharge Status

A total of 12176 patients were discharged between 1 July 2006 and 31 May 2008. Of these patients, 82 percent returned home, 4 percent to hospitals off the West Coast, 2 percent to rest homes, 7 percent to destinations within West Coast District Health Board (this accounts for transfers between hospitals and between wards), 2 percent deceased whilst in hospital and the remaining 1 percent were to other locations (e.g. temporary place of residence).



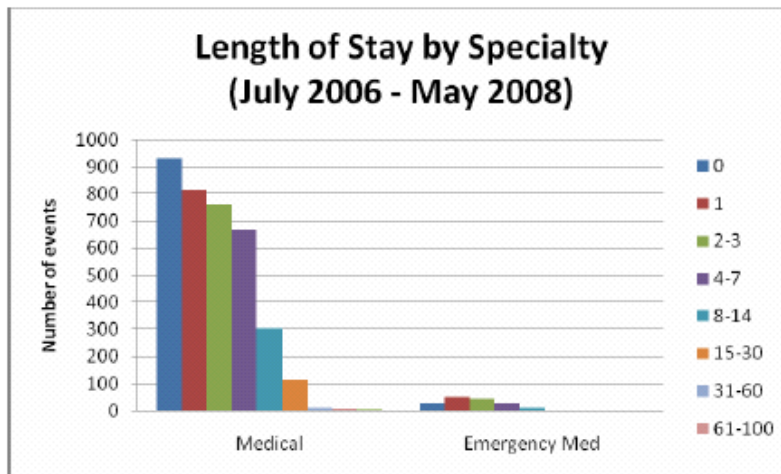
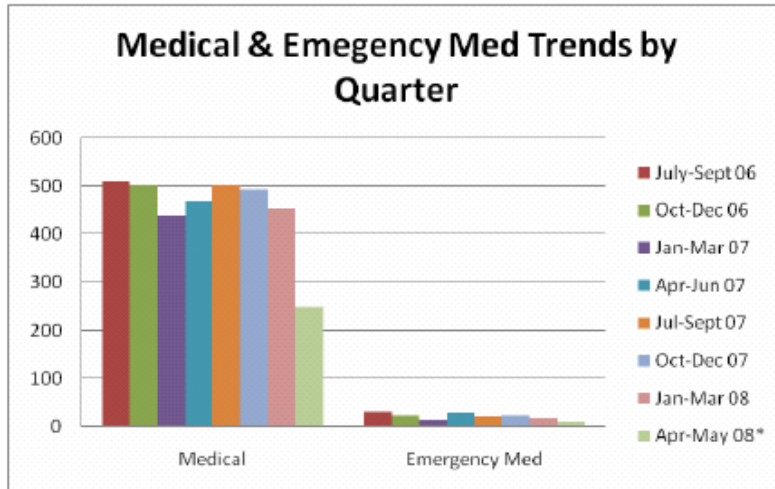
Of those patients discharged to hospitals off the West Coast³ in 2007, 200 were to Christchurch Public Hospital and 49 were to Christchurch Women’s Hospital accounting for 96 percent of discharges from West Coast DHB that was off the Coast.

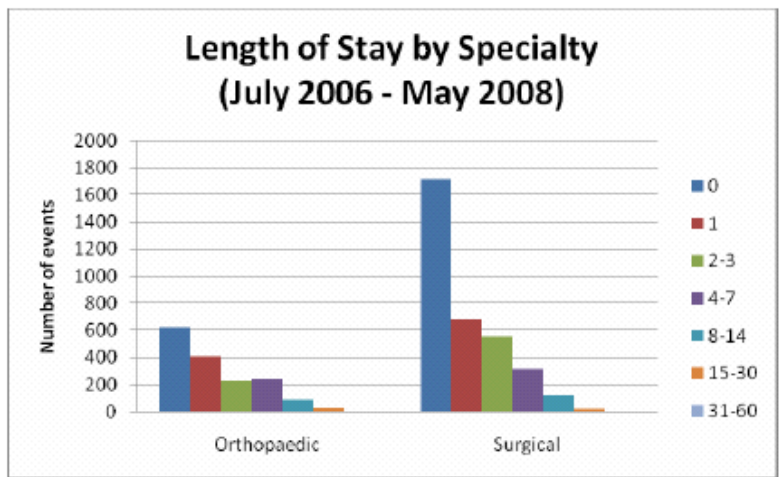
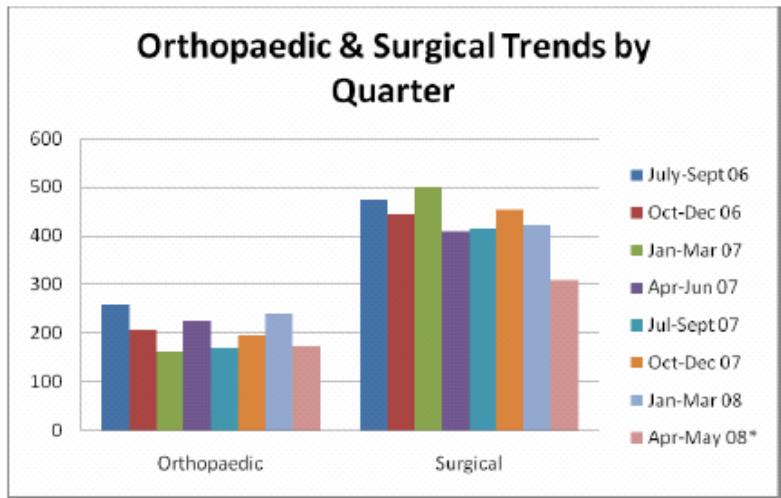


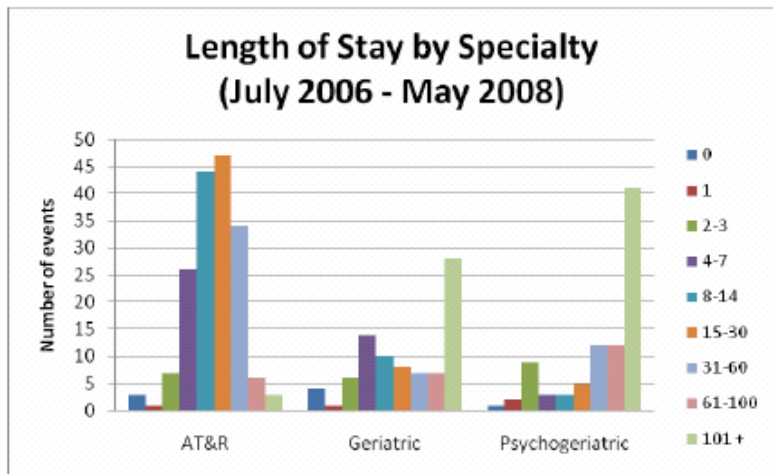
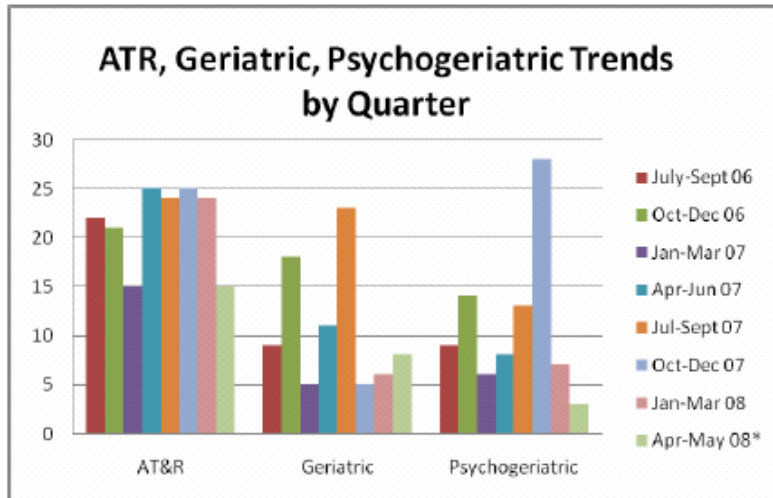
³ Note that inter district flow data will include those patients that were never admitted to WCDHB but received services off the Coast. These figures are for those patients discharged from WCDHB.

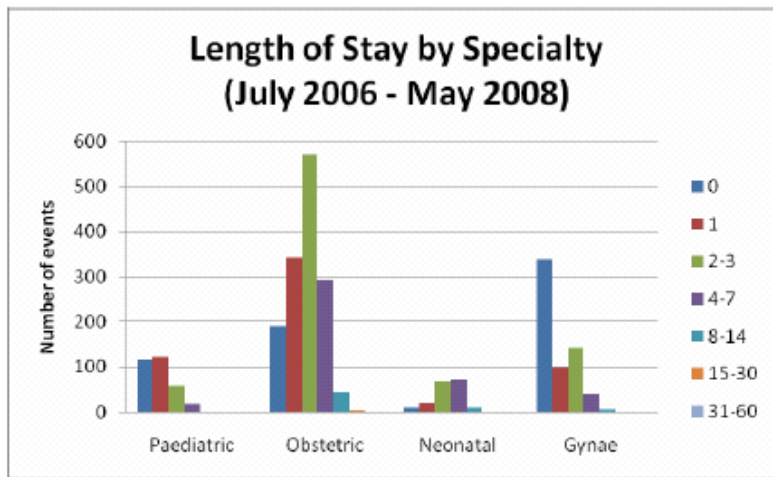
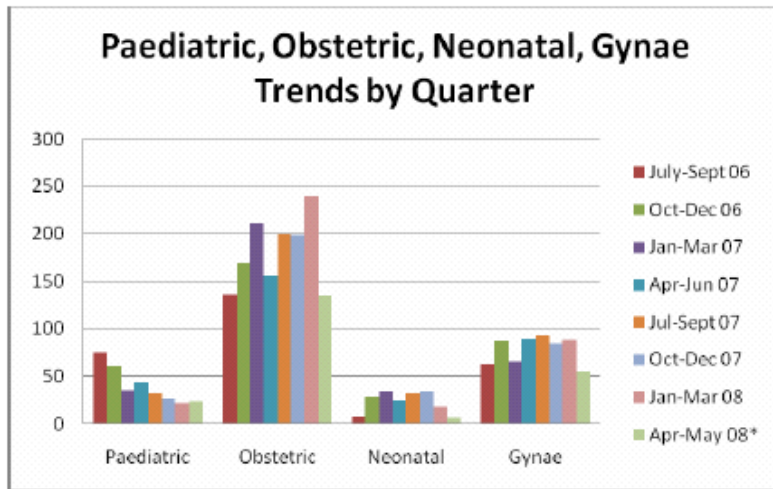
Trend by quarter

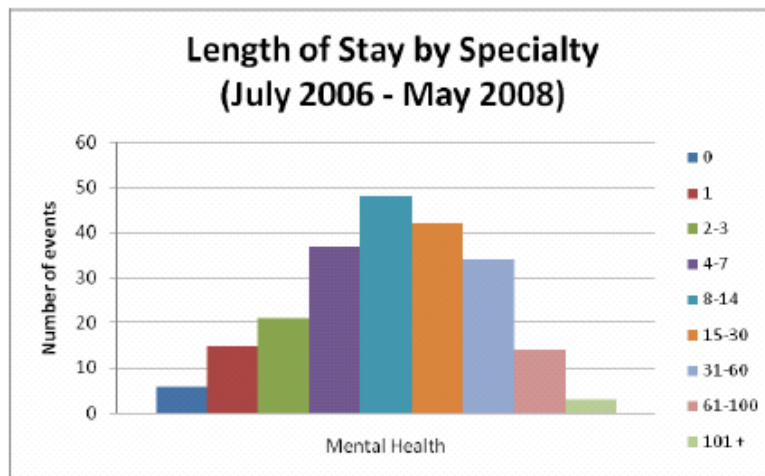
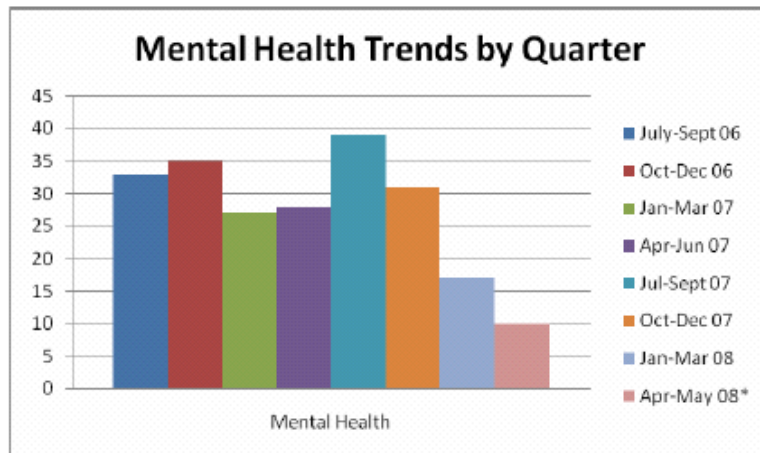
As the data set included two part year's and one full year, trends in admissions by specialty were analysed by quarter and are presented in graphs below. Note that the last quarter April-May 08 is an incomplete quarter. The second chart in each set summarises average length of stay by specialty for the period July 2006 – May 2008.





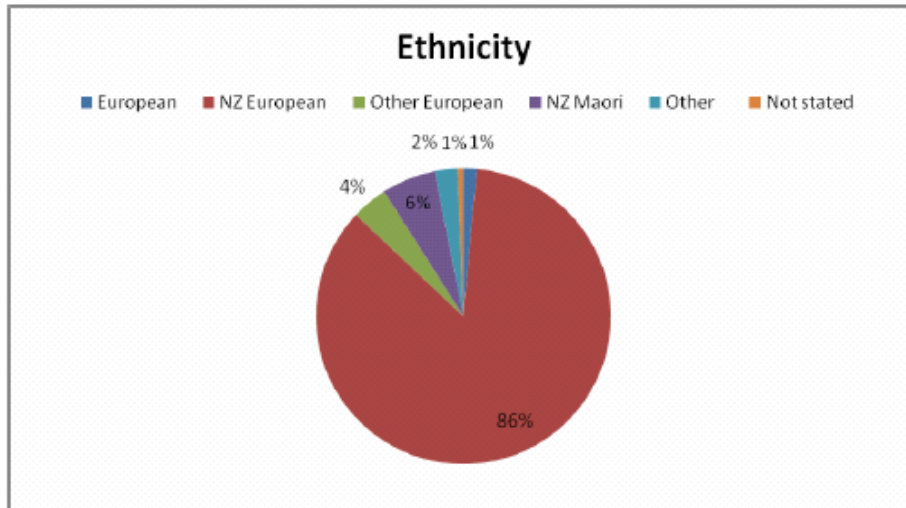






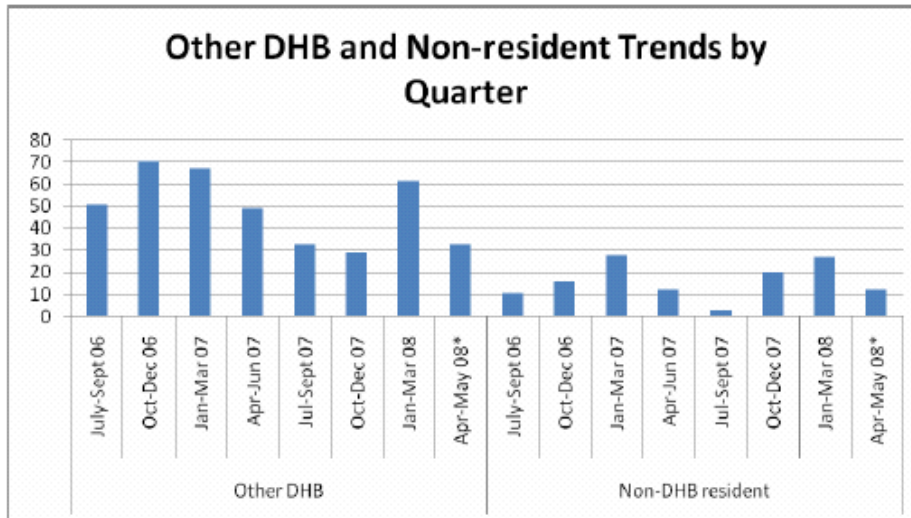
Ethnicity

Across all admissions, there were 8 percent NZ Maori and 86 percent NZ European leaving the remaining 6 percent associated with other ethnicities.



Domiciles

Ninety-six percent of patients were from domiciles within the West Coast DHB catchment. Three percent were from other DHB's and one percent were non-residents. The graph below suggests some seasonal variation.



Inter district Flows

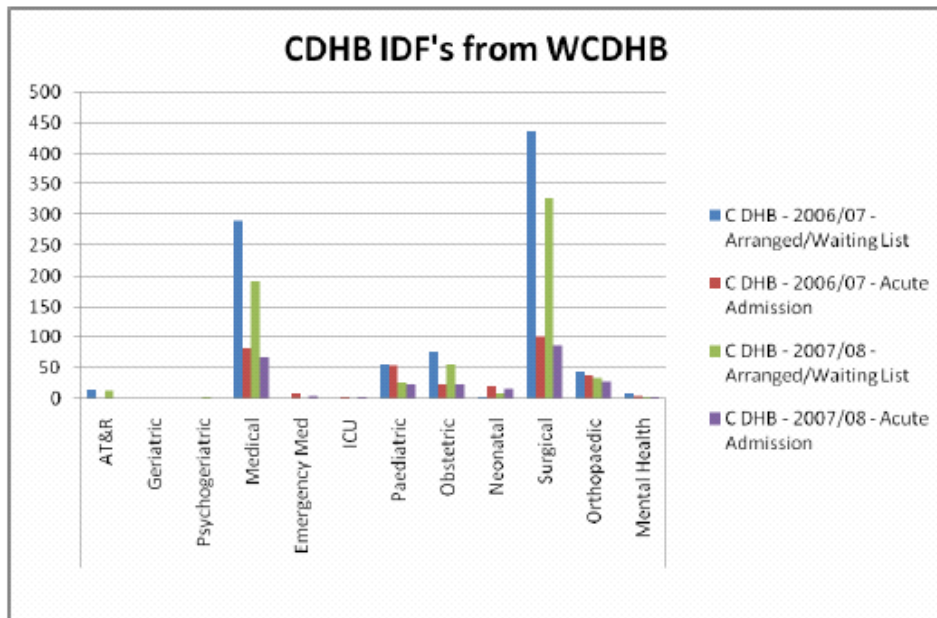
Inter district flow (IDF) data was provided by the South Island Shared Support Agency. The data base used was for all events between 1 January 2005 and 31 March 2008 where the patient domicile equals West Coast Agency and not equal to West Coast DHB.

Note that the 2007/08 year is incomplete as the data set ends at March 2008 (as opposed to June 2008).

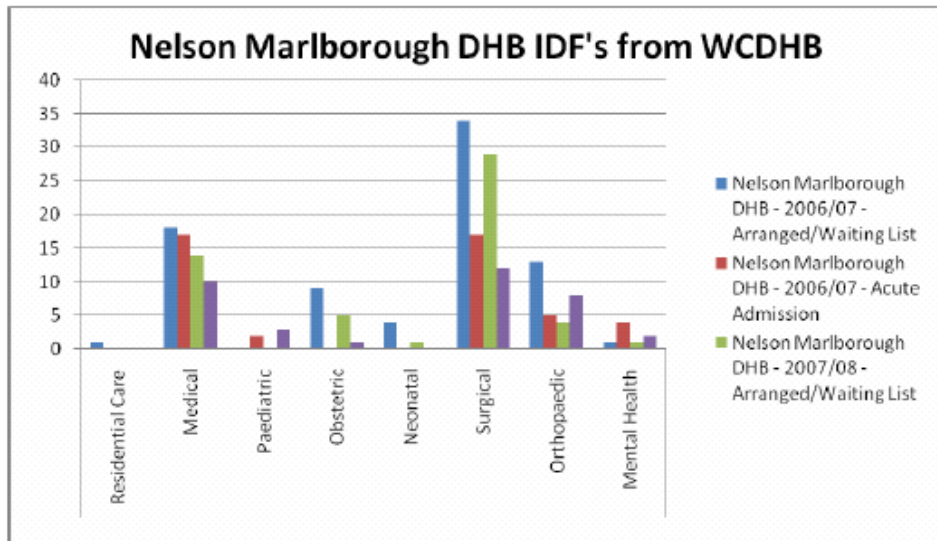
The following table shows that over the past two financial years that 76 percent of total IDF's were to Canterbury District Health Board and 8 percent to Nelson Marlborough DHB.

Agency name	2006/07		2006/07 Total	2007/08		2007/08 Total	Grand Total
	Arranged/ Waiting List	Acute Admission		Arranged/ Waiting List	Acute Admission		
Canterbury DHB	932	338	1270	659	255	914	2184
Nelson Marlborough DHB	80	45	125	54	36	90	215
South Island Mobile Surgery Unit	88		88	81		81	169
St Georges	57		57	48		48	105
North Island DHB's excluding ADHB	13	34	47	12	25	37	84
Auckland DHB	21	12	33	6	2	8	41
Otago DHB	15	15	30	7	7	14	44
Dunstan Charitable Trust					1	1	1
Oamaru Charitable Trust		1	1				1
Southland DHB	2	3	5	1	1	2	7
Winton Birthing Centre/Central Southland B. Unit	2		2				2
Pohlen Trust	1		1				1
South Canterbury DHB		9	9	1	2	3	12
Grand Total	1211	457	1668	869	329	1198	2866

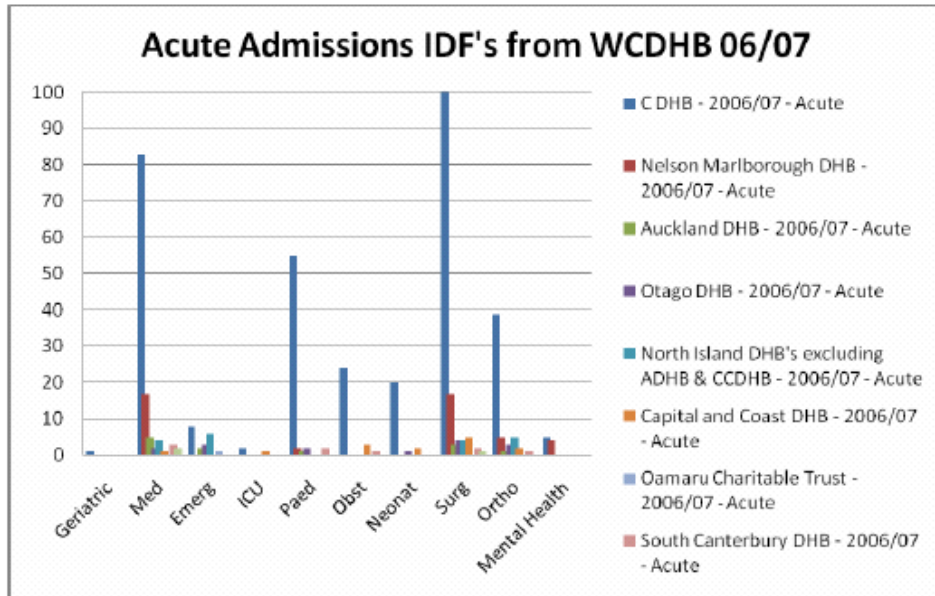
Further analysis of IDF's by specialty for Canterbury DHB (CDHB) found that the majority of admissions related to arranged or waiting list surgery.



Volumes to Nelson Marlborough DHB were also predominately for arranged and waiting list admissions.



Acute presentations were most common to Canterbury DHB. The distribution of acute presentations at Canterbury DHB were Surgical 30 percent, Medical 25 %, Paediatric 16 %, Orthopaedic 12 percent, Obstetric 7 percent, Neonatal 6 percent, Emergency Medicine 2 percent, ICU 1 percent Mental Health and Geriatric 0-1 percent. The graph below shows all Acute IDF admissions to any other hospital in 2006/07.



In the 2006/07 year 54 percent were aged 16-64, 26 percent 65-105, 15 % 1-16 and 5 percent aged under 1 year. With the exception of those aged under 1 the acute to arranged ratio was consistent across the age bands being approximately one third acute.

