

ELECTIVE (SSC5c) REPORT (1200 words)

Health and Healthcare in New Zealand and the UK

New Zealand and the UK aside from the geographical separation and population size share many similarities. To compare the emergency departments it's important for them to be placed in context, a brief comparison of the big picture:

- Population (2013): New Zealand 4.47bn, UK 64.1bn, England 53.9bn
- Health expenditure New Zealand 10%GDP: 2,583USD per capita, UK 9.3%GDP: 3,011USD per capita
- Life expectancy: New Zealand 81.5, UK 81
- Alcohol consumption(litres per capita): New Zealand 9.51, UK 10.61
- Smoking (%adults): New Zealand 17%, UK 19%

(5)

	<i>Top 5 Causes of Mortality</i>		
Men	NZ Maori	NZ Non Maori	UK
1	Ischaemic Heart Disease	Ischaemic Heart Disease	Heart Disease
2	Lung Cancer	Suicide	Lung Cancer
3	Diabetes	Lung Cancer	Emphysema/Bronchitis
4	Suicide	Cardiovascular disease	Stroke
5	RTA	Colorectal cancer	Dementia
Women	NZ Maori	NZ Non Maori	UK
1	Ischaemic Heart Disease	Ischaemic Heart Disease	Dementia
2	Lung Cancer	Breast Cancer	Heart Disease
3	Emphysema/Bronchitis	Cardiovascular disease	Stroke
4	Cardiovascular disease	Lung Cancer	Flu/pneumonia
5	Diabetes	Colorectal cancer	Emphysema/Bronchitis

Table 1. (21 & 22)

Healthcare Structure

New Zealand and the UK on the surface have very similar approaches to delivering healthcare. New Zealand led the way towards public health service provision a decade before the NHS was founded with the Social Security Act 1938. Policy compromises during its implementation led to a dual health system with a synthesis of public and private systems. With the private sector allowing those that wish to pay, to speed up their journey through the system. The other most notable difference is the GP part charges (up to £25) for appointments. As a result of this access barrier, cash strapped patients may use the free public services of the emergency department, rather than pay. (14)

Structuring of Emergency Services

The emergency department system within the UK includes major A&E departments, single speciality A&E departments, walk-in centres and minor injury units. (3) Walk-in centres and minor injuries units take around 30% of all admissions. (4)

In New Zealand in addition to Emergency Departments, urgent doctors services provide a halfway house between the ED and GP services dealing with non urgent minor complaints and sports injuries. Similar to GP services there is an associated surcharge for the urgent doctors services posing as a potential access barrier. There is also variation across the country with opening times of these services with some available 24/7 and others with no overnight coverage. (19)

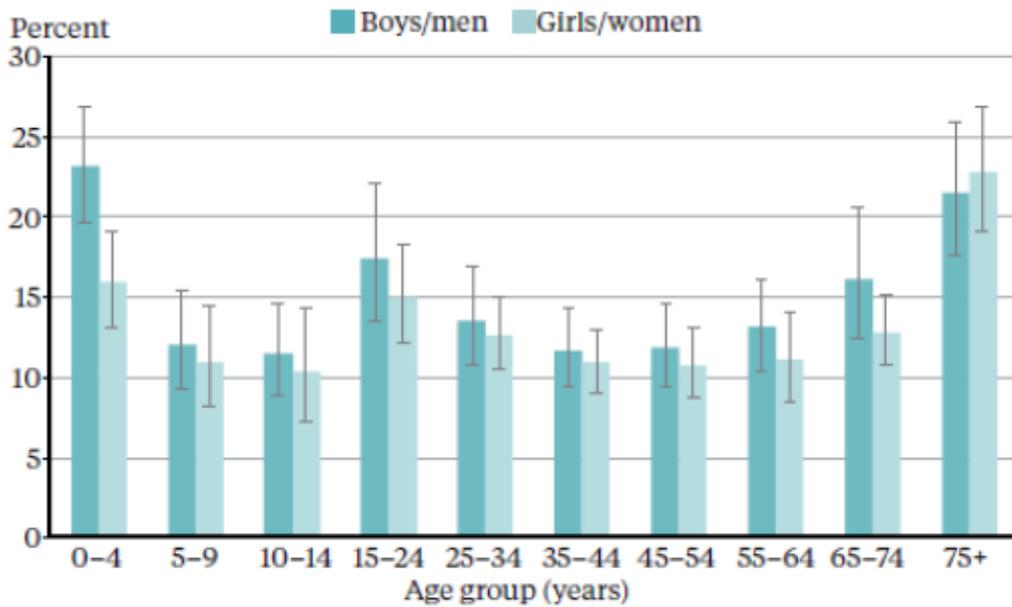
Within the department itself there is obviously a lot of variation between different hospitals both in New Zealand and in the UK. Within the UK plans for the 4 hour Emergency Department target were laid out in 2000 with Labour's NHS Plan, (24) just less than a decade later New Zealand also implemented a 6-hour target, with the 'Shorter stays in Emergency Departments' health target of 2009.(18) With both countries expecting a threshold of 95% of patients to be admitted or discharged within their target times. Subjectively the extra 2 hours available to the ED staff is invaluable, allowing a greater depth of care and diagnostic work up to take place. The ED in New Zealand is also able to relieve the burden from the medical team with the additional 2 hours allowing more time consuming procedures such as lumbar puncture to be carried out in the department.

The structuring and hierarchy of the departments is very similar, small differences such as point of care blood gas machines available depending which hospital you visit, varying degrees of Rapid Assessment Team implementation is becoming more popular in the UK due to the shorter target times. In New Zealand having nursing staff trained in venepuncture and cannulation, seems to add to the efficiency of flow. Emergency Department Assistants in the UK have cannulation, venepuncture and ABG skills but are often oversubscribed so that the efficiencies of having them in the department are not fully realised. Within the UK the current crisis in A&Es has also impacted upon morale and so most noticeable on first coming to New Zealand was the difference that positive morale has on teamwork and patient care.

Emergency Department Use

One in seven adults and children in New Zealand visited an emergency department in 2011, equating to 609,000 people. 3.7% of which had two or more attendances giving an estimated 650,000 individual ED presentations that year. This represents a 1% increase in the number of adults and 2% in children presenting from 2006 figures.(1) These figures do not take into account 'urgent doctors' attendances.

Figure 1: Emergency department use in the previous 12 months, by age and sex

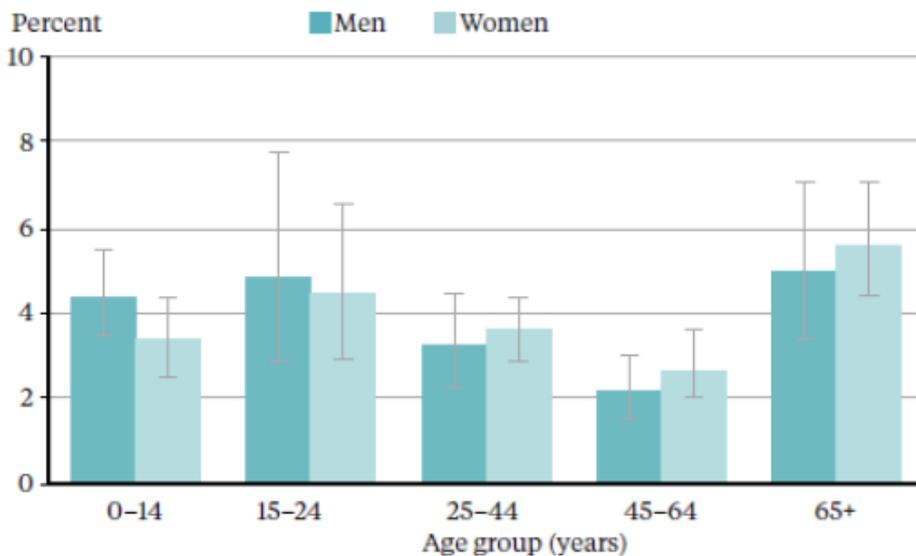


Source: 2011/12 New Zealand Health Survey.

(1)

Of those attending Figure 1 shows the bimodal distribution of the youngest and oldest being the most common users. Repeat attendances correlated positively with both increasing age and levels deprivation (Figure 2). Maori were 1.7 times more likely than the rest of the population to present to the ED. (1)

Figure 2: Percentage of people who had used an emergency department two or more times in the previous 12 months, by age and sex

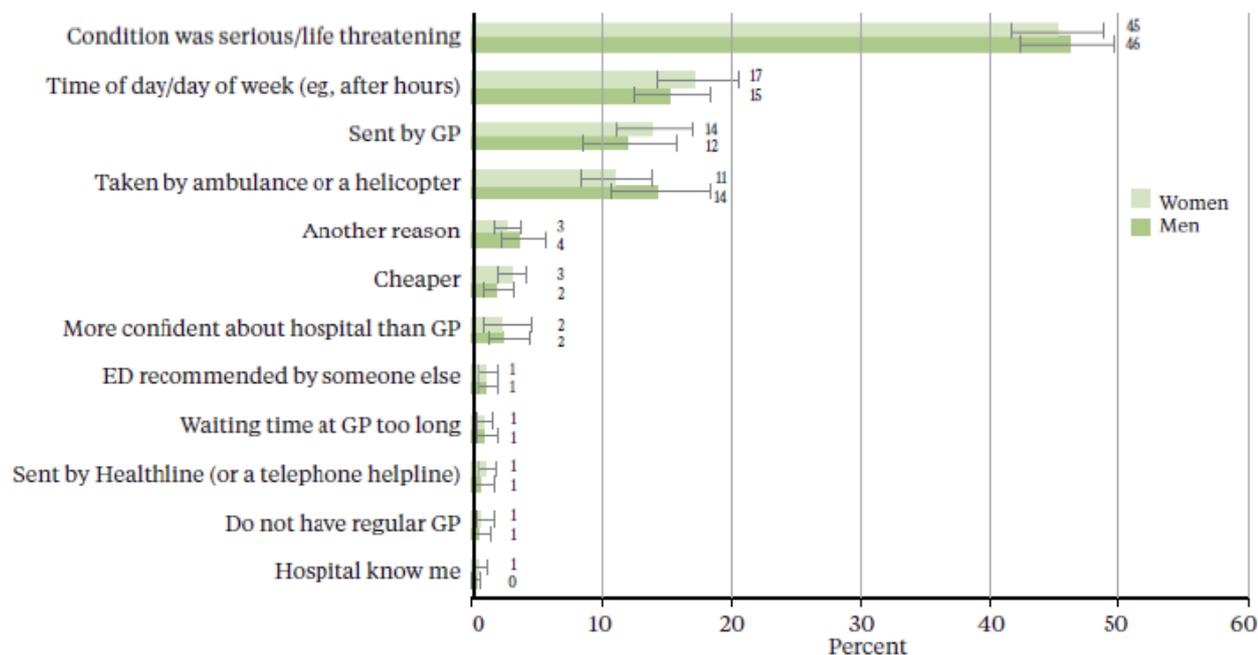


Source: 2011/12 New Zealand Health Survey.

(1)

Patients reported through the New Zealand Health Survey, that almost half chose to attend A&E due to a perceived serious or life threatening condition.

Figure 3: Main reason for most recent visit to an emergency department in the previous 12 months (adults), by sex



Source: 2011/12 New Zealand Health Survey (adults 15 years and over who had visited an ED in the previous 12 months).

(1)

Of the other reasons for presentation it could be argued that changes such as removal of GP fees, shorter GP waiting times and wider out of hours services could lead to up to a 22.5% decrease in ED use. Only 1% attended upon the recommendation of healthline. One quarter of respondents reported they could have been treated by a medical centre if one was available. (1)

In England, between 2012-13, 18.3million attendances were recorded, a 4% increase on the previous year. Data for the number of those which were repeat attendances is not available but in the unlikely event of them being different individuals for each attendance, it equates to 30.6% of the population attending in a twelve month period, exclusion of minor injuries units and walk in centres figures this falls to 23.7% but still remains almost 10% higher than levels in New Zealand. Of all attendances, 42.8% were aged 29 and below and 34.4% were recorded as 'guidance/advice only', suggesting that in a number of cases, primary care may be a more appropriate point of call. (3)

A national survey to the scale of the New Zealand Health Survey isn't available for general A&E attendances for the UK but a smaller survey carried out in Cambridge found that 7% of attendees weren't registered with a local GP, 22% did not know how to contact out of hours services, 23% would use NHS direct as a first point of call and between 23-45% had incorrect knowledge of their nearest emergency department. (11)

As of March 2015, around 10% of A&E attendances in the UK resulted from NHS direct referrals. With the number of calls made to the service steadily increasing year on year. An outcome of an A&E referral results in between 15-20% of triaged calls, with the service receiving upwards of a million calls per month and the general public's awareness of the service growing, it stands to further increase A&E attendances into future with its current triage sensitivities.(23)

The future of healthy emergency departments in both the UK and New Zealand will depend greatly on several of the factors mentioned above; adequate staffing, appropriate referrals, an ED in a well structured health system, and most importantly adequate public information and education to manage patient expectations of what the system is there to provide.

Alcohol and its impact on the Emergency Department in New Zealand and the UK

At a National Level

Costs

In addition to being implicated in causing over 40 medical conditions, the over consumption of alcohol has significant societal costs. In 2009, alcohol cost the NHS around £3.5bn , accounting for 7% of all hospital admissions. (20) Taking into account the predicted full social costs, such as associated crime and loss of productivity it totals an estimated £21.8bn per year or £340 per capita for the UK. (26) In New Zealand the estimated social costs total at around NZ\$4.9bn (£2.38bn) per year or £532 per capita.(25) Estimates for both countries vary widely, but it can clearly be seen that levels of hazardous drinking come at a significant cost for both. The chronicity of issues with alcohol also make realising the true cost difficult, as health implications may have up to a 20 year time lag. (15)

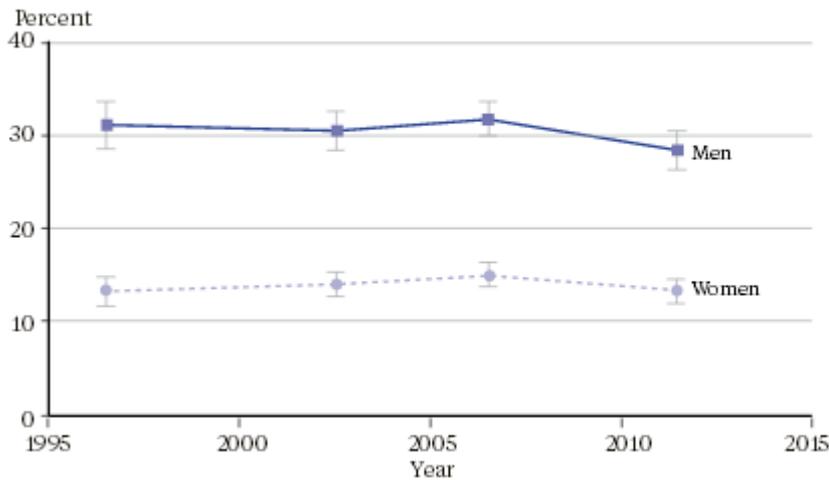
Rates

In 2011/12 the New Zealand Health Survey found that although the proportion of drinkers nationally was down from 84% in 2006/7 to 80% having consumed alcohol in the past 12 months. Levels of hazardous drinking occurred in 17% of the population, measured against the WHO AUDIT score. In the Southern District rates were found to be even higher at 25.1%. (16)

Levels of hazardous drinking remain highest in the 18-24 age group but a significant decrease has also occurred within this group since 2006/7. Ages 35-54 show lower levels compared to their youngers but show little sign of changing their drinking patterns. In terms of alcohol exposure of the young, progress has also been made with the 15-17 age group with rates of drinking in the past year falling from 75% to 59%. (2)

Pacific and asian adults are significantly less likely to have consumed alcohol in the past year, but those that have, are more likely to have hazardous drinking habits. This same pattern is seen in deprived areas; 86% in the least deprived vs 68% in the most deprived for alcohol consumed in the last year but greater levels of hazardous drinking in the most deprived. (2)

Figure 4: Hazardous drinking, among past-year drinkers, by sex, 1996/97–2011/12



Notes: Rates are age-standardised to the WHO world population.

Source: New Zealand Health Surveys (1996/97, 2002/03, 2006/07, 2011/12) (15 years and over)

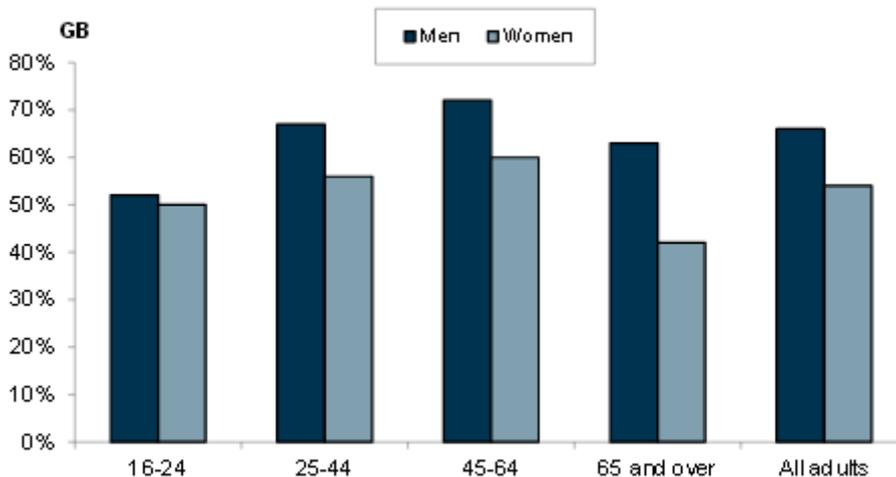
(2)

Figure 4 shows that trends in hazardous drinking in past year drinking are slowly improving with fewer men and women who drink, drinking at a hazardous level compared with 2006/7.(2)

Direct comparison with the UK is difficult without the same measures in place. The UK measures its alcohol misuse against governmental guidelines of 3-4 Units/day not exceeding 21 units per week for men and 2-3 Units/day not exceeding 14 units for women, with heavy drinking classified as above double the upper limit for daily allowance in one day.(20)

In 2011, in England, 87% of men and 81% of women had drunk alcohol in the past 12 months, giving similar rates to that of New Zealand in 2006/7. Trends in the UK are also pointing to a general decline in number of people drinking; 66% of men and 54% women had had a drink in the last week, down from 75% and 59% in 1998. Figure 5 shows that men are more likely to have consumed alcohol in the past week and are more likely to continue drinking into their later years. (20)

Figure 5 Proportion of adults who drank in the last week, by age and gender, 2011



Source: General Lifestyles Survey 2011, Office for National Statistics (ONS)
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(20)

23% of men and 18% had an estimated weekly consumption of more than the recommended levels, which although not a perfect comparison is comparable to 'hazardous drinking' levels with the AUDIT score.(20)

16-24 year olds were the most likely to drink heavily on a single occasion. Men aged between 45 and 64 were most likely to exceed 21 units per week and women between 45 and 54 were the most likely to exceed 14 units.
(20)

Figures for both countries show that over consumption of alcohol is still significant, although the early signs of a downward trend may be starting to appear. As mentioned above, the true costs may not be initially realised and looking at alcohol related admissions data we may be starting to see the true extent of this time lag. In 2011 there were 200,900 admissions where the primary diagnosis was attributed to alcohol consumption, a 41% increase since 2002. Admissions for an alcohol related disease numbered 1,220,300, a 51% increase from 2002. (20)

Strategies for Tackling Alcohol Misuse

For such a major public health issue, relatively little has been done beyond the unit recommendations in the UK, currently there are no targets in place for alcohol misuse treatment. It is estimated that for every £1 spent on alcohol treatment society would save £5 and treating 15% of dependent drinkers could save £1.7bn. (15)

In terms of access to the current services, almost half of referrals came from self, family or friends and specialist prescribing is the most heavily used community based structured intervention. In those adolescents who seek treatment few transition successfully into adult services.(15)

Current research suggests that policy change stands to have far greater effect than treating the individual, the leading examples of which include:

Minimum pricing - there is extensive evidence that an increase in minimum pricing is the most effective means of reducing harm.

Advertising and expenditure on alcohol - much like the ground that has been made tackling tobacco with restricted advertising rights, the same may be possible for alcohol.

Alcohol outlets - increasing access barriers.

Interventions at the individual level are useful in the primary care and ED setting, proven to be cost effective compared with inaction:

Screening with questionnaires

Motivational interviewing as part of brief interventions

Staff training in identifying harmful drinking

(15)

New Zealand, in 2013 made steps to gently introduce alcohol policy change, with tighter restrictions to on and off licenses, it is too early to see whether these have been successful but it is small steps in the right direction. Minimum alcohol pricing remains a contentious issue in both countries and with the lobbying power of the alcohol industry combined with general opposition from the public its implementation looks unlikely.

Word count: 2,100

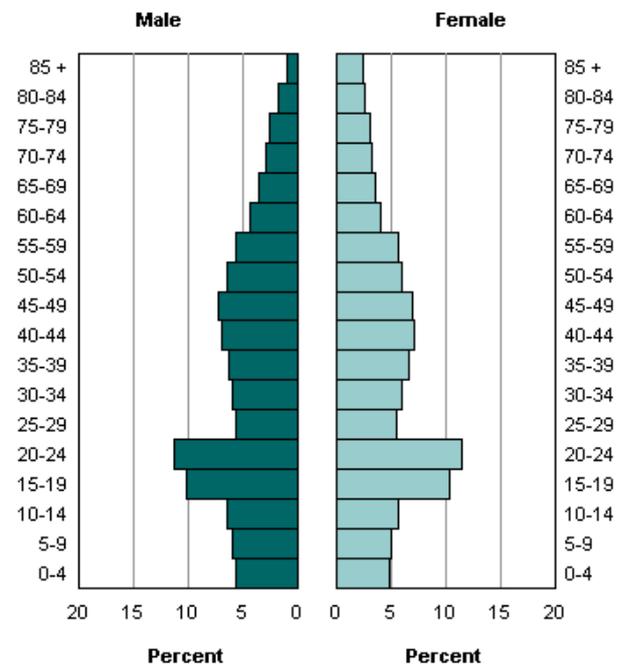
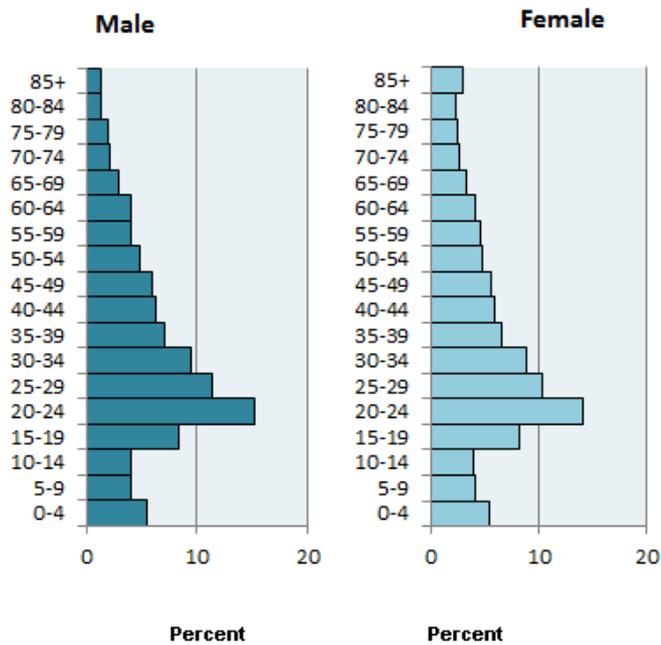
Appendix 1

Comparing Dunedin and Cambridge

	Cambridge	Dunedin
Population	123,900 (2011). (9)	118,683 (2006). (8)
District Catchment Area Population	312,000. (12)	304,360. (6)
Hospital Catchment Area	312,000. (12)	181,500. (7)
Hospital size (beds)	1,000. (10)	388. (7)
ED Presentations/yr	102,709. (10)	45,000. (7)
University Enrollment	18,899 (2012)	18,951 (2012)

Cambridge

Dunedin



References

1. Emergency Department Use 2011/12: Key findings of the New Zealand Health Survey. Available: <http://www.health.govt.nz/publication/emergency-department-use-2011-12> NZ
2. Hazardous drinking in 2011/12: Findings from the New Zealand Health Survey. Available: <http://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/alcohol-use-data-and-stats> NZ
3. Hospital Episode Statistics: Accident and Emergency Attendances in England – 2012-13. Available: <http://www.hscic.gov.uk/catalogue/PUB13464/acci-emer-atte-eng-2012-2013-rep.pdf>
4. A&E attendances: Provider level analysis (experimental statistics), 2011-12. Available: http://data.gov.uk/dataset/accident_and_emergency_attendances_in_england_experimental_statistics
5. An Economic Comparison of New Zealand and the United Kingdom. OECD. Available: <http://www.compareyourcountry.org/health?cr=gbr&cr1=oeed&lg=en&page=2>
6. Our Location and Population. Southern District Health Board. Available: <http://www.southerndhb.govt.nz/index.php?page=654>
7. Dunedin Hospital. Southern District Health Board. Available: <http://www.southerndhb.govt.nz/pages/careers-dunedin-hospital>
8. Quick Stats About Dunedin. Statistics New Zealand. Available: <http://www.stats.govt.nz/Census/2006CensusHomePage/QuickStats/AboutAPlace/SnapShot.aspx?tab=AgeSex&id=2000071>
9. Cambridge Census. Cambridge Council. Available: <https://www.cambridge.gov.uk/2011-census>
10. CUH Facts and Figures. Available: <http://www.cuh.org.uk/about-us/our-profile/facts-and-figures>
11. A&E Attendance Topline Results June 2014. Cambridge University Hospitals. Available: <http://www.cuh.org.uk/news/communications/ae-attendance-research-published>
12. Addenbrookes catchment zones. Cambridge University Hospitals. Available: <http://www.cuh.org.uk/foundation-trust/catchment-area>
13. Social conscience
14. NHS can learn a lot from New Zealand's healthcare system. The Guardian. Available: <http://www.theguardian.com/healthcare-network/2014/oct/21/nhs-learn-new-zealand-healthcare-system>
15. Alcohol Needs Assessment - Cambridgeshire 2013. Available http://cambздаat.org/sites/default/files/files/Alcohol%20Needs%20Assessment%202013_0.pdf
16. The Impact of Alcohol on the Health of Southern Communities A Report to Inform the Development of Local Alcohol Policies by Southern District Councils. Available: <http://www.southerndhb.govt.nz/files/2013071693920-1373924360-0.pdf>
17. New Zealand alcohol statistics. Available: <http://www.alcohol.org.nz/research-resources/nz-statistics/alcohol-facts>
18. A Quality Framework and Suite of Quality Measures for the Emergency Department Phase of Acute Patient Care in New Zealand. Available: <http://www.health.govt.nz/system/files/documents/publications/quality-framework-suite-of-quality-measures-for-ed.pdf>
19. Urgent Doctors Services. Available: <http://www.dunedinurgentdoctors.com/>
20. General Lifestyle Survey 2011 Chapter 2. ONS. Available: <http://www.ons.gov.uk/ons/rel/ghs/general-lifestyle-survey/2011/rpt-chapter-2.html>

21. Major causes of death (all ages). Ministry of Health. Available: <http://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/maori-health-data-and-stats/tatau-kahukura-maori-health-chart-book/nga-mana-hauora-tutohu-health-status-indicators/major-causes-death-all-ages>
22. What are the top causes of death by age and gender? Office for national statistics. Available: <http://www.ons.gov.uk/ons/rel/vsob1/mortality-statistics--deaths-registered-in-england-and-wales-series-dr-/2012/sty-causes-of-death.html>
23. NHS Direct Figures. Available: <http://www.england.nhs.uk/statistics/2015/05/01/nhs-111-statistics-march-2015/>
24. Letham, Katy, and Alasdair Gray. "The four-hour target in the NHS emergency departments: a critical comment." *Emergencias* 24.1 (2012).
25. Alcohol Fact Sheets, New Zealand. Ministry of Health. Available: <http://www.arphs.govt.nz/Portals/0/Health%20Information/Alcohol%20and%20Tobacco/ARPHS%20Alcohol%20and%20Tobacco%20service/alcohol-factsheets.pdf>
26. Economic and Social Costs of Alcohol in the UK. Available: <http://www.ias.org.uk/Alcohol-knowledge-centre/Economic-impacts/Factsheets/Economic-costs.aspx>