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## A Descriptive Analysis of General Acute Trust Star Ratings

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**DISCUSSION PAPER 189** 

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## **Abstract**

This paper examines the relationship between acute NHS Trust star ratings in England (generated by the Department of Health) in 2000/01 and 2001/02 with various other Trust characteristics and performance indicators from a Trust level database maintained by the Centre for Health Economics. The Trust star ratings system is a composite performance measure which places Trusts into one of four categories: from three stars, awarded to Trusts with the highest levels of performance to zero stars, awarded to Trusts showing the poorest levels of performance. We examine the descriptive statistics for the various variables in the dataset over the two years, according to each star rating as well as one-way Analysis of Variance (ANOVA) using zero star Trusts as the reference category and then least squares to fit a linear model to each of the variables in the dataset.

Although zero star Trusts appear to perform better in terms of clinical outcomes such as death rates and readmissions, this is not statistically significant. However, zero star Trusts do worse than other Trusts across various patient satisfaction measures and financial and efficiency measures. Three star Trusts outperform others on two grounds fairly consistently: waiting times and financial balance suggesting either more efficient management or fewer capacity constraints. The labour market for consultants and nurses also appear to be utilised in different ways across the groups of Trusts. One hypothesis is that the different groups of Trusts focus on different elements of performance. The extent to which differences are due to exogenous factors or internal factors is a question for future research.

#### Introduction 1.

The NHS Performance Assessment Framework (PAF), published in April 1999, introduced a new broader-based approach to assessing performance in the NHS by encouraging action across six areas (Health improvement; fair access; effective delivery of appropriate health care; efficiency; patient/carer experience; and health outcomes of NHS care). The PAF was supported by the publication in June 1999 of the first set of High Level Performance Indicators (HLPIs) and Clinical Indicators (CIs) for both Health Authorities and NHS Trusts respectively (Department of Health, 2000). This was the first full range of indicators for NHS hospital Trusts and set in motion the process of publishing information on the performance of NHS organisations in order to provide comparisons and improve performance overall.

In September 2001, the first set of performance star ratings were published by the Department of Health for acute NHS Trusts 2000/01 (Department of Health, 2001). The star ratings are a composite index score given to each NHS organisation which are supposed to provide an overall assessment of performance across a number of indicators. In July 2002, the second set of star ratings were published by the Department of Health, now covering acute Trusts, specialist Trusts, ambulance Trusts and indicative ratings for mental health Trusts for 2001/02 (Department of Health, 2002). Primary Care Trusts (PCTs) received a separate publication, describing their performance against a range of suitable indicators, but not a rating. In July 2003, the most recent set of star ratings were published, covering again all types of NHS Trusts and PCTs. In this third round, the Commission for Health Improvement (CHI), the independent regulator of NHS performance, took over responsibility for performance ratings and indicators from the Department of Health (Commission for Health Improvement, 2003).

The methodology for the three years of star ratings has remained relatively constant, however with some important changes to the individual indicators covered. The Trust star ratings comprise similar areas of performance to the PAF which, taken together, should give a balanced view of the performance of NHS hospital Trusts. There were broadly four areas of indicators in 2000/01: clinical effectiveness and outcomes; efficiency; patient/carer experience; and capacity and capability. In the last two years of star ratings the key areas have been: key government targets; clinical focus; patient focus; capacity & capability; and CHI reviews.

The NHS Performance Ratings system places NHS Trusts in England into one of four categories:

- 1. Trusts with the highest levels of performance are awarded a performance rating of three stars;
- 2. Trusts that are performing well overall, but have not quite reached the same consistently high standards, are awarded a performance rating of two stars;
- 3. Trusts where there is some cause for concern regarding particular areas of performance are awarded a performance rating of one star;
- 4. Trusts that have shown the poorest levels of performance against the indicators are awarded a performance rating of zero stars meaning that performance must be improved in a number of key areas.

The key government targets are the most significant factors in determining overall performance ratings. The broader range of indicators make up a 'balanced scorecard' to refine the judgement on ratings and are combined in a complex 6-step process to

produce the star ratings. CHI reviews of Trust clinical governance arrangements also play an important role in determining star ratings since three star Trusts need to perform well on all key targets as well as the CHI clinical review.

This paper is based on a report prepared for the Commission for Health Improvement and examines the relationship between the Trust star ratings in 2000/01 and 2001/02 with various other Trust characteristics and performance indicators. The paper uses data from a Trust level database maintained by the Centre for Health Economics at the University of York with various Trust characteristics. Data sources include the CIPFA database, NHS Information Authority, HES, DH Executive, various DH websites and the Dr Foster Good Hospital Guide (Dr Foster, 2002). Most variables are available for both years. However for some just a single year's data is reported.

The paper first examines the change in star ratings over the two years and then looks at the descriptive statistics for the various variables in the dataset over the two years, according to each star rating. Finally it examines the Analysis of Variance (ANOVA) results for each of the variables, again according to each star rating over the two years, to measure the extent to which the variables have a significant statistical association with star ratings.

It should be noted that some of the variables have been drawn from the performance indicators used to derive the star ratings and one would therefore expect that these variables should be statistically significant in an analysis of star ratings. They have nevertheless been included, since they may indicate how strongly they are associated with the star ratings.

## 2. Trusts used in the analysis

While in 2000/01 only acute Trusts were used in the star ratings, the performance methodology was expanded in 2001/02 to include specialist and other Trusts as well. This paper only uses general acute Trusts over the two years since this group proved to be the most comparable. Table 1 shows a tabulation of these Trusts over the two years while Figure 1 shows this graphically.

Table 1: Tabulation of star ratings for 2000/01 and 2001/02 for NHS Trusts in England

Star ratings	2000/01	2001/02
	acute only	acute only
Zero stars	12	10
One star	23	34
Two stars	103	77
Three stars	35	45

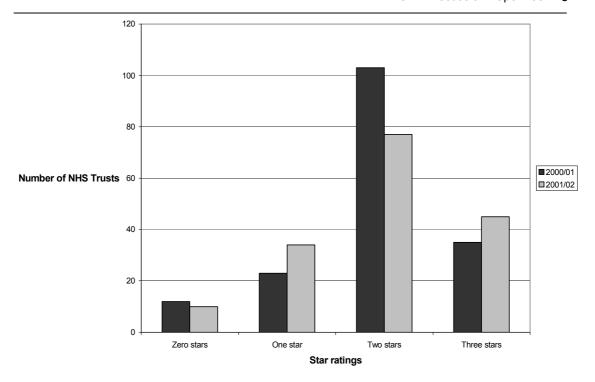


Figure 1: Star ratings for 2000/01 and 2001/02 for NHS acute Trusts in England

It should be noted that there are missing data for some variables, giving rise to variations between indicators in the number of Trusts analysed. Given the large number of variables used, we do not give detailed variable definitions, but specific definitions can be made available on request.

## 3. Descriptive statistics of Trust variables

Table 2 shows descriptive statistics for the four groupings of general acute Trusts according to star rating. The descriptive statistics include the number of observations in each group, and the mean and the standard deviation for each variable, for each of the two years.

The variables have been grouped into the following broad categories: clinical outcome, responsiveness, process, human resources, waiting, structural, financial, and environment. There may be alternative ways to categorise these variables and some variables may fall into more than one category. The groupings are used merely for exposition purposes.

Table 2: Descriptive statistics of Trust variables by star rating for 2000/01 and 2001/02 for NHS acute Trusts in England

Trust variables	Year		0 sta			1 sta			2 sta			3 sta	
		n	Mean	Std. dev	n	Mean	Std. dev	n	Mean	Std. dev	n	Mean	Std. dev
Clinical outcome													
Mortality index	2000/01	10	99.40	6.62	22	98.05	8.96	94	100.03	9.48	34	101.18	6.86
	2001/02	10	96.20	8.72	26	98.77	7.97	64	99.97	8.69	38	100.55	10.04
Readmission rate	2000/01	11	5.69	1.03	22	5.91	0.99	97	5.91	0.92	34	5.91	0.84
	2001/02	9	5.59	0.56	28	5.98	1.01	71	6.01	0.90	42	6.20	0.90
Readmissions following hip	2000/01	11	7.18	1.90	22	7.90	3.24	93	7.69	2.43	32	8.17	2.83
fracture	2001/02	9	7.09	1.63	28	7.60	2.38	70	8.19	2.60	42	8.28	2.10
Readmissions following	2000/01	10	6.76	1.92	21	8.19	3.17	95	7.21	2.38	33	6.69	2.11
stroke	2001/02	9	7.35	1.34	28	7.33	2.75	70	7.39	2.57	42	7.20	2.04
Deaths from emergency	2000/01	11	2973.5	572.4	23	2969.6	569.2	102	2951.8	732.4	35	2812.6	440.4
surgery	2001/02	9	2646.0	378.3	27	3135.3	455.7	70	3010.8	511.1	43	2802.8	573.0
Discharge to usual residence		10	48.42	4.65	21	48.27	11.02	93	45.71	8.97	32	46.40	9.27
following hip fracture	2001/02	10	49.26	9.89	27	49.51	8.32	69	46.81	8.51	42	48.43	7.62
	2000/01	9	48.75	4.02	21	50.92	5.62	96	48.90	5.76	33	48.90	6.12
following stroke	2001/02	10	50.84	4.87	27	50.50	4.39	70	51.10	5.72	42	49.37	5.33
Clinical negligence	2000/01	12	1130.8	596.66	23	702.65	390.77	102	777.75	886.30	35		546.8
expenditure	2001/02			519.04					633.72				
Clinical negligence (CNST)	2000/01	0			0			0			0		
	2001/02	10	0.800	0.789	31	1.032	0.547	71	1.042	0.491	39	1.128	0.469
Complaints	2000/01	12	563.50	180.24		453.70			413.75			376.03	
	2001/02		000.00	100.21	0	100.10	100.01	0	110.70	220.00	0	0.00	100.1
Complaints resolved	2000/01	12	51.88	16.52	23	49.27	17.24	103	52.17	18.18	35	56.13	20.6
	2001/02		01.00	10.02	0	10.27	17.24	0	02.17	10.10	0	00.10	20.0
CHI review	2000/01	0			0			0			0		
	2001/02	7	1.286	0.488	21	2.190	0.512	40	2.200	0.516	15	3.733	0.458
Responsiveness	l	'	1.200	0.400	<u>                                     </u>	2.100	0.012	10	2.200	0.010	1.0	0.700	0.400
Patients trust doctor	2000/01	8	80.25	5.85	18	80.61	4.96	84	81.69	4.18	31	83.06	3.86
	2001/02		83.00	4.08	21	81.48	5.15	55	81.55	4.10	33	83.06	4.14
Patients trust nurses	2000/01	8	80.25	3.77	18	77.61	4.05	84	79.04	4.25	31	79.48	3.87
	2001/02	10	80.80	2.66	21	78.86	4.19	55	78.87	4.57	33		3.92
Patients told doctor's name	2000/01	8	64.13	6.64	18		8.18	84	72.17	7.23	31	72.26	5.93
	2001/02	10	69.40	8.24	21			55	71.36	7.28	33		6.84
Patients stayed in single sex	2000/01	8	45.13	14.94	18		7.74						17.04
ward	2001/02	-		18.45	21		16.78 16.30	84 55	66.76 65.42	17.64 18.72	31		17.0
Patients satisfied with	2000/01	10											
discharge procedure	2001/02		65.50	6.65	18		5.78	84	68.57	4.87	31		6.88
Inpatient survey coordination	2000/01	0	67.50	5.19	21	67.00	4.35	55	69.11	5.59	33	68.97	6.08
of care	2001/02	_	66 OF	0.76	0	66.00	2.46	0	67.00	2.76	0	60.00	2 50
Inpatient survey environment		10	66.05	2.76	32	66.09	3.46	74	67.28	3.76	43	68.98	3.58
& facilities	2001/02	0	74.00	4.00	0	70.04	<b>5</b> 00	0	70.40	<b>5 5</b> 0	0	74.00	4 70
Inpatient survey information	2000/01	10	71.98	4.39	32	70.31	5.68	74	72.16	5.50	43	74.09	4.73
& education	2000/01	0	0= :-		0	00.55		0	0= 5=	0.01	0	00 /=	
Inpatient survey physical &	2000/01		67.13	4.47	32	66.68	4.10	74	67.37	3.61	43	69.17	3.04
emotional needs	2000/01	0			0	00		0			0	_,	
Inpatient survey prompt	2000/01	10	69.12	4.54	32	69.78	3.65	74	70.06	3.12	43	71.93	3.01
access		0			0			0			0		
	2001/02	10	73.56	7.47	32	75.39	7.28	74	78.52	7.28	43	81.82	5.44
Inpatient survey respect & dignity	2000/01	0			0			0			0		
<u> </u>	2001/02	10	80.62	4.74	32	80.80	4.05	74	81.95	4.49	43	82.61	4.49
Cleanliness	2000/01	0			0			0			0		
	2001/02	۱40	3.400	0.516	21	3.258	0.445	71	3.310	0.466	30	3.487	0.50

Process													
	2000/04	1	1	1	I	I	1	ı	I	1	1	I	1
ALOS	2000/01		3.893	0.546	23	4.500	1.104	102		0.743		3.731	0.764
Tatal analla	2001/02	10		0.535	34		0.772	76	3.979	0.782		4.019	0.757
Total spells	2000/01 2001/02		69549	30041		50357	19637	102		30427		61459	21063
Total anicadas		10		28824			26647	76	61691	31184		67829	29747
Total episodes	2000/01		76652		23		20846	102		33711		69058	24292
Total innations days (000)	2001/02	10		33081		64067	30183	76	68988	34760		75803	32679
Total inpatient days (000)	2000/01 2001/02		262.14			217.68				114.65			
Electives	2000/01		209.81			234.46				114.01		262.36	
Electives	2000/01	12		20697		31827	12820	102		20946		40082	15397
Emergency admissions	2000/01	10		19324			17202	76	39931	21376		43951	21387
Emergency admissions	2000/01		23963	10654	23		7485	102		10172		21377	6652
Emergency index		10		10953			9954	76	21760	10484		23878	9166
Emergency index	2000/01 2001/02	11	0.018	0.008	21	0.016	0.005	96	0.020	0.014	35		0.011
Emergency admissions nor	2001/02	10		0.003	27	0.019	0.008	66	0.018	0.011	38		0.013
Emergency admissions per inpatient spell	2000/01	12		0.063	23		0.053	102		0.053	35		0.050
<u> </u>	2000/01	10		0.061	34		0.055	76	0.358	0.054	45		0.050
Total outpatient attendances (000)	2000/01						112.75			141.89			
			247.17							137.57			151.40
Total first outpatient attendances	2000/01 2001/02	12				58314	30552	102		49331		67737	26198
Total outpatients per inpatient	2001/02					69448	32309	76	69966	32336		74850	34542
spell		12		1.801	23	4.399	2.812	102	4.078	1.075	35	l	0.784
<u> </u>	2001/02	10		0.742	34		1.758	76	4.414	1.561		4.003	1.080
First outpatient attendances per inpatient spell	2000/01 2001/02	12	1.323	0.577	23	1.179	0.450	102	1.186	0.452	35		0.247
Daycases per spell	2001/02	10		0.190	34	1.280	0.428	76	1.169	0.268	45		0.224
Daycases per spen	2000/01	12		0.063	23	0.504	0.126	102		0.075	35		0.056
Descent deleved discharges	2000/01	10	0.538	0.066	34	0.509	0.085	76	0.509	0.072	45	0.509	0.079
Percent delayed discharges	2000/01	0			0			0			0		
Occupancy rate	2000/01		5.382	2.318	34		3.090	73	4.926	3.111	_	4.284	2.628
Occupancy rate	2000/01		86.011	5.705		85.962	4.519		83.404			80.710	5.194
Information governance	2000/01	10	85.708	7.234		86.564	4.750		84.216	5.385		83.619	5.330
Information governance	2000/01	0			0			0			0		
Data quality	2000/01		19.300						21.311			23.860	
Data quality		12	0.888	0.084	23		0.093	103		0.092		0.917	0.074
Human resources	2001/02	10	0.889	0.092	34	0.884	0.083	73	0.917	0.061	43	0.914	0.080
WTE consultants	2000/01	l			1			1			l		
WIL Consultants	2000/01		135.26				38.80		100.84			92.98	38.36
SHOs and HOs	2000/01	10	98.83			106.51			105.75			125.43	
or ios and rios	2001/02		84.64	30.88			31.11	93	73.83	33.11		77.59	33.74
WTE staff	2000/01		81.66	44.78			21.08	65	73.75	29.94		85.14	38.50
WIL Stail	2000/01	12	3426	1447	23		1140	102		1681	35		952
WTE medical staff	2000/01			1509	34		1337	76	3127	1769	45		1633
WTE medical stall	2001/02						121.35						
WTE administrative staff	2000/01						153.35						
W I E daministrative stair	2001/02						233.44						
WTE nursing staff	2000/01						299.67						
TT I L Hursing Stall	2000/01						373.82						
Proportion of medical staff	2000/01						451.08			539.43			
r reportion of medical staff	2000/01		11.02		23		3.13	102		2.01	35	l	1.95
Proportion of consultants	2000/01		10.49	1.75	34		1.82	76	9.45	2.57	45		2.42
1 reportion of consultants	2000/01	12		0.62	23		0.74	102	3.38	0.69	35	3.14	0.72
Proportion of admin staff	2000/01	10		0.86	34		0.60	76	3.41	0.83	45		0.85
1 Toportion of autility stall	2000/01		20.93	1.71	23		2.08	102		2.21		20.27	2.04
	200 1/02	10	21.00	1.30	34	21.04	2.31	76	21.09	2.23	45	20.23	2.63

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Proportion of nursing staff	2000/01	12	35.01	3.46	23	33.96	4.00	102	33.52	3.39	35	32.80	3.05
	2001/02	10	33.47	3.89	34	32.98	3.20	76	33.33	3.62	45	32.24	4.05
Proportion of Scientific	2000/01	12	14.84	2.19	23	14.79	2.52	102	14.68	2.51	35	14.24	2.12
Technical Therapeutic staff	2001/02	10	14.47	2.01	34	14.36	2.42	76	14.74	2.45	45	14.50	2.47
Proportion of allied health	2000/01	12	4.74	1.29	20	5.56	1.06	92	5.12	1.19	31	5.00	1.32
professionals	2001/02	10	4.66	1.30	34	4.97	1.11	76	4.96	1.17	45	4.98	1.07
Consultants per bed	2000/01	12	15.28	3.89	23	13.12	3.80	102	12.69	3.21	35	11.89	3.15
	2001/02	10		2.56	34	13.48	3.15	76	13.24	3.79	45	14.04	4.76
Doctors per bed	2000/01	_	43.10	10.50	22	35.91	11.76	94	34.05	9.20	34		8.92
	2001/02	10									-		
Nurses per bed	2000/01			7.99	26		10.09	64	33.53	9.20		35.24	10.83
randed per bed	2001/02		134.70	21.01		113.00	21.56	94	119.18		-	115.44	16.42
Vacancy rate allied health			123.90			118.15		64	118.06			120.00	
Vacancy rate allied health professionals	2000/01	11						98		35.730			
·	2001/02	10	44.414	44.043	31	46.469	38.638	71	41.145	36.486	39	36.379	30.855
Vacancy rate nurses	2000/01	11	49.838	24.814	22	54.794	51.564	98	36.199	37.941	34	26.981	28.211
	2001/02	10	32.286	35.200	31	51.152	42.469	71	29.537	26.796	39	31.455	34.106
Vacancy rate consultants	2000/01	11	8.668	13.799	22	19.629	23.367	98	28.369	31.636	34	31.312	30.774
	2001/02	10	5.380	7.304	31	21.921	23.915	71	28.084	25.656	39	28.008	28.008
Sickness absence rate	2000/01	8	4.083	1.124	23		0.864	102		0.801	32		0.498
	2001/02	9	4.463	0.463	30		0.899	69	4.658	0.730		4.597	0.580
Staff satisfaction survey	2000/01	0	1.100	0.100	0	1.107	0.000	0	1.000	0.700	0	1.001	0.000
•	2001/02	10	3.160	0.153	31	3.144	0.133	71	3.179	0.146	•	3.232	0.102
Percent comply with junior	2000/01	0	3.100	0.155		3.144	0.133		3.179	0.140		3.232	0.102
doctors' hours	2001/02	_	0.500	0.400	0	0.507	0.000	0	0.000	0.400	0	0.007	0.470
Waiting	200 1702	10	0.523	0.162	31	0.527	0.239	71	0.600	0.189	39	0.627	0.172
	12000/01	1	ı	ı		ı	1			ı			<del></del>
Median waiting time	2000/01						14.753						
	2001/02	10	51.200	12.943	32	58.188	20.732	76	52.053	17.501	45	45.333	15.889
Percent waiting less than 6 months	2000/01	0			0			0			0		
	2001/02	10	74.46	9.13	34	72.01	7.08	74	79.30	7.30	43	81.82	7.83
Numbers waiting 6 months	2000/01	0			0			0			0		
	2001/02	10	4641.9	2298.9	34	4785.5	2270.5	74	4477.2	2399.2	43	4691.3	2403.7
Outpatient wait 13 weeks	2000/01	12	0.719	0.059	23	0.751	0.066	103	0.760	0.073	35	0.785	0.063
	2001/02	10	0.703	0.096	34	0.699	0.092	74	0.759	0.081	43	0.766	0.074
Outpatient wait 26 weeks	2000/01	0			0			0			0		
	2001/02		33 70	106 57		2.85	11.25	-	5.15	40.99	_	0.02	0.15
A&E 4 hour trolley wait	2000/01	0	00.70	100.07	0	2.00	11.20	0	0.10	10.00	0	0.02	0.10
·	2001/02	10	0.15	0.09	34	5.49	18.37	75	7.69	24.01	45	10.72	20 10
A&E 12 hour trolley wait	2000/01	0	0.15	0.09		5.49	10.37		7.09	24.01		10.72	28.10
7.0.2 1.2 1.00.			75 70	440.04	0	47.70	44.00	0	0.40		0	0.00	0.07
Cancer 2 week wait	2001/02		75.70	142.84		17.76	41.03	73	2.40	7.74	43	0.23	0.97
Cancer 2 week wait		0			0			0			0		
Droot some 2 week weit	2001/02						0.072	74	0.941	0.054		0.971	0.036
Breast cancer 2 week wait	2000/01	11	0.893	0.196	22	0.963	0.056	98	0.946	0.097	34	0.960	0.077
	2001/02	10	0.962	0.049	30	0.947	0.135	68	0.924	0.155	38	0.990	0.023
Percent cancelled operations	2000/01	0			0			0			0		
	2001/02	10	0.032	0.026	34	0.317	1.048	77	0.103	0.371	45	0.105	0.254
Cancelled operations in 1	2000/01	0			0			0			0		
month	2001/02	10	0.622	0.414	34	0.872	1.338	77	0.303	0.398	45	0.162	0.236
Structural			•	•		•							
Average beds	2000/01	12	972 20	304 46	22	709 04	288.81	102	700 15	370 44	25	775 1 <i>E</i>	223.20
<del></del>	2001/02												
Free beds	2000/01		706.09										328.40
1 100 0003		12	130.69	87.18	23	101.02	56.20		127.28			151.53	
Oites with many than 50 to 1	2001/02							76				143.00	
Sites with more than 50 beds	2000/01	11	2.364	2.014	21	1.810	0.928	96	1.913			2.086	1.095
	2001/02	10	2.100	2.132	27	1.667	0.734	66	1.889	1.098	38	2.158	0.886

Percent research revenue	2000/01	11	1.270	1.692	21	1.348	1.988	96	1.656	4.360	35	0.785	1.909
expenditure	2001/02	10	0.761	1.197	27	0.865	1.318	66	1.596	4.452	38	1.993	4.110
Teaching status	2000/01	12	0.167	0.389	23	0.174	0.388	103	0.155	0.364	35	0.086	0.284
	2001/02	10	0.200	0.422	31	0.065	0.250	71	0.127	0.335	39	0.231	0.427
Students per spell	2000/01	11	0.0009	0.0011	21	0.0010	0.0017	96	0.0006	0.0012	35	0.0005	0.0011
	2001/02	10	0.0008	0.0010	27	0.0005	0.0009	66	0.0006	0.0013	38	0.0010	0.0016
SIFTR	2000/01	0			0			0			0		
	2001/02	10	7350	8171	34	5821	5742	76	8568	14251	45	11776	17117
Merged	2000/01	12		0.289	23	0.043	0.209	103	0.068	0.253	35	0.029	0.169
	2001/02	10	0.000	0.000	34	0.088	0.288	77	0.052	0.223	45	0.089	0.288
Specialisation index	2000/01	11	0.271	0.084	21	0.284	0.227	96	0.291	0.295	35	0.280	0.243
	2001/02	10	0.270	0.116	27	0.229	0.081	66	0.278	0.309	38	0.344	0.307
Financial													
Total expenditure (000)	2000/01	12	158.20	67.24	23	116.97	54.81	102	125.81	78.70	35	115.99	41.27
	2001/02	10	132.03	81.36	34	130.04	66.66	76	136.07	79.49	45	155.47	84.29
Unit cost	2000/01	12	1.482	0.187	23	1.517	0.357	102	1.410	0.367	35	1.358	0.318
	2001/02	10	1.280	0.258	34	1.319	0.302	76	1.298	0.300	45	1.356	0.344
Reference cost index	2000/01	12	101.16	6.89	23	96.72	13.24	102	95.53	9.50	35	91.36	9.57
	2001/02	10	100.20	13.60	34	99.94	9.99	76	98.06	8.37	45	96.40	8.56
Financial balance	2000/01	0			0			0			0		
	2001/02	10	-0.007	0.017	34	-0.007	0.014	74	0.001	0.005	43	0.001	0.003
Claiming financial support	2000/01	0			0			0			0		
	2001/02	10	1790.0	3949.7	34	894.1	2522.2	74	23.6	176.4	43	7.7	50.3
Retained surplus / deficit	2000/01	12	-450.1	2932.6	23	606.3	3150.0	102	350.6	1459.7	35	237.7	1073.4
T. (11: (000)	2001/02		-1000	2661.0	34	-982.6	2317.3	76	98.5	854.1	45		1007.0
Total income (000)	2000/01		164.62	70.91	23	123.19	57.73	102	128.88	82.31	35	120.78	42.58
In a para princeta patienta	2001/02		136.19	82.67		133.96	68.76	76	141.18	82.07		161.66	87.86
Income private patients	2000/01 2001/02	12	2420	2984	23	1314	1553	102	1405	2367	35	1054	1199
Capital expenditure per bed	2000/01	10	867	586	34	1582	2209	76	1496	2369	45	1892	2710
Capital experiulture per beu	2000/01	0			0			0			0		
Non-salary expenditure (000)	2000/01	10	8919	5413	34	5205	4646	76	7175	5277	45		8748
rton salary experiantice (600)	2001/02	12		27800	23	40600	23400	102	44500	32900		38200	15900
Non healthcare expenditure	2000/01		47100			42000	23300	76	44400	29700		50500	33100
(000)	2001/02	12		2079	23		2752	102		2733	35		3049
Salary expenditure per WTE	2000/01	10			34		2233	76		3069			
calary experience per vv. =	2001/02		28330	2295		27774	4423		26107	3348		25038	2136
Proportion management	2000/01		29426 4.348	2333 0.896	23	28968	3326	76	28413	4242		27582 4.414	3731
salaries	2001/02		4.346	l			1.155	102	4.224 4.241	1.209			1.250
Proportion consultant salaries	2000/01		13.102	0.583 1.293	34	4.803 12.087	1.272	76 102	12.419	1.253 1.628		4.270 12.057	1.471
·	2001/02		13.525			12.786			12.510			12.384	
Proportion nurses salaries	2000/01		36.954			36.630			37.381			39.352	
	2001/02		37.474			35.135			36.894			37.587	
Proportion total medical	2000/01		24.277			23.007			23.150			22.527	3.000
salaries	2001/02		24.660			24.417	1.908		23.721			23.406	
Total NHS salaries (000)	2000/01		90500	37500			29600			43500		71700	24500
	2001/02		75400			79600	40100	76		47300		95100	47600
Non NHS salaries (000)	2000/01	12		3683	23	4377	4109	102	3492	4454	35		2104
	2001/02	10	5886	4947	34	5046	3687	76	4050	3684	45		5686
Percent agency salary spend	2000/01	12	3.523	2.398	20	5.281	4.210	96	3.383	2.429	34		3.132
for medical staff	2001/02		4.298	3.045	34	5.481	3.523	76	4.131	2.690		4.415	6.078
Percent agency salary spend	2000/01	12	8.796		23		8.266	99	6.654	8.405		3.357	4.997
for nurses	2001/02						8.711						
	•	•	-	-		-	-	-	-	-		-	-

Total percent agency salary	2000/01	12		2.784	23	5.615	4.108	102	4.085	3.253	35	2.892	2.564
spend	2001/02	10	6.468	2.346	34	5.928	3.380	76	4.618	3.264	45	4.617	4.159
Total salaries (000)	2000/01	12	96700	39800	23	73000	31700	102	78000	45900	35	73900	25200
	2001/02	10	81400	46800	34	84700	42300	76	87800	49200	45	99900	50400
Environment													
Population density	2000/01	11	15.027	13.688	20	22.550	26.169	93	18.054	23.036	35	10.700	15.780
	2001/02		12.010						18.919	22.657	38	21.276	28.296
Market forces factor	2000/01	12		0.035	23		0.128	102	1.030	0.085	35	1.010	0.042
	2001/02			0.030	34	1.001	0.040	76	0.999	0.070	45	1.003	0.082
Herfindahl index	2000/01	11	0.312	0.253	21	0.269	0.264	96	0.370	0.317	35	0.433	0.324
	2001/02	10	0.414	0.309	27	0.445	0.344	66	0.331	0.276	38	0.354	0.314
Heated volume per bed	2000/01	11	13.21	30.04	21	5.50	5.92	96	3.68	1.21	35	3.42	1.00
	2001/02	10	13.41	31.76	27	3.61	1.01	66	3.94	2.51	38	4.33	3.50
HRG casemix index	2000/01	12	95.26	6.89	23	95.87	11.48	102	91.05	7.30	35	90.06	7.15
	2001/02	10	98.98	8.10	34	101.25	7.42	76	98.05	7.34	45	99.18	9.72
Patient transfers into hospital	2000/01	11	0.024	0.009	21	0.020	0.012	96	0.019	0.012	35	0.021	0.012
per spell	2001/02	10	0.025	0.015	27	0.022	0.010	66	0.019	0.012	38	0.022	0.012
	II.	11	0.011	0.011	21	0.010	0.011	96	0.010	0.009	35	0.008	0.009
per spell	2001/02	10	0.008	0.011	27	0.010	0.008	66	0.010	0.009	38	0.011	0.011
Population under 15	2000/01	12		0.034	23	0.145	0.066	102	0.139	0.045	35	0.142	0.029
	2001/02	10	0.141	0.047	34	0.142	0.042	76	0.152	0.053	45	0.147	0.046
Population over 60	2000/01	12	0.379	0.044	23	0.406	0.065	102	0.402	0.064	35	0.410	0.050
	2001/02	10	0.479	0.065	34	0.470	0.068	76	0.449	0.082	45	0.446	0.076
Female population	2000/01	12	0.527	0.032	23	0.509	0.115	102	0.524	0.044	35	0.520	0.036
	2001/02	10	0.506	0.037	34	0.518	0.046	76	0.520	0.051	45	0.508	0.043

## 3.1 Clinical outcome

The mortality index is based on a four-year standardised mortality index adjusted for age, sex, primary diagnosis, length of stay and type of admission. It increases slightly with star rating, although the subsequent analysis (Table 3) shows this is not statistically significant. General readmission rates increase slightly with star rating, although the position for specific conditions is less clear. There is no clear pattern for discharges to usual residence following hip fracture or stroke.

Compliance with the clinical negligence scheme (CNST) is higher for three star Trusts than zero star Trusts, and there is some evidence that expenditure on clinical negligence is lower amongst higher rated Trusts. Rates of complaints also decrease with star rating, and a slightly higher proportion of complaints are also resolved in three star Trusts compared to zero and one star Trusts.

As expected, the CHI review is strongly associated with the star ratings.

## 3.2 Responsiveness

The percentage of patients that trust their doctor varies little between categories, but was slightly higher for three star Trusts compared to zero star Trusts. The percentage of patients that trust the nursing staff appears to be slightly higher amongst zero star Trusts. The percentage of patients that were told their doctors name increases with star rating. The percentage staying in a single sex ward for the duration of their stay was markedly lower amongst zero star Trusts, possibly suggesting fewer capacity constraints amongst higher rated Trusts. The remaining

patient satisfaction scores generally show a slight gradient in favour of higher rated Trusts. Hospital cleanliness was used in the construction of the star ratings and also suggests improvement across the star categories.

#### 3.3 **Process**

The process variables include various measures of inpatient, elective, outpatient, emergency and daycase activity. There is no clear picture of any differential volume or pattern of activity being performed by any particular star category. Average length of stay is measured by inpatient days per inpatient spell and is markedly lower in zero star Trusts in the second year. One star Trusts have longer lengths of stay than other groups. In the first year of results, daycase rates seem to increase with star ratings, but this is not the case in the second year. Daycase rates per inpatient spell show a large increase over the period for zero star Trusts.

The percentage of delayed discharges decreases markedly as the star ratings increase from one to three. (The variable was again used to construct the star ratings.) Occupancy rate generally declines with star rating, reinforcing a perception that the higher rated Trusts appear to be under less demand pressure than their lower rated counterparts.

Information governance and data quality were both used in the construction of the star ratings and suggest improvement in each of the variables across the star categories.

#### 3.4 **Human resources**

The numbers of whole-time equivalent (WTE) consultants and SHOs and HOs is higher in zero star Trusts compared to others, although this pattern changes in the second year, likely due to the movement of large Trusts into the three star category in the second year. The same pattern holds for WTE staff numbers in the other categories across the two years. Results for the proportion of WTE medical staff and the proportion of consultants suggest relatively higher staffing levels in these categories in zero star Trusts. There is also a slightly higher proportion of nursing staff in zero star Trusts. The number of doctors and nurses per bed are higher in zero star Trusts compared to others. Variations in staffing levels for allied health professionals and scientific and therapeutic staff are not as clear-cut across the two years.

Vacancy rates were all used in the construction of the star ratings in 2000/01. Vacancies for allied health professionals decrease (approximately) as star ratings increase. Vacancies appear to be lower for nurses in two and three star Trusts compared to zero and one star Trusts, but this finding is reversed for consultants. The sickness absence rate (again used in the construction of the star ratings) appears to be slightly higher for two and three star Trusts. The staff satisfaction survey and the percentage of junior doctors employed that are complying with the junior doctors' hours both show a reasonably consistent pattern of improving (albeit modestly) with the star ratings categories.

#### 3.5 Waiting

Most of the waiting time variables played an important role in the construction of the star ratings. It is therefore not surprising to find that they show a fairly consistent pattern regarding improvement across star categories. Cancelled operations were

also used in the construction of the star ratings and improve across star categories, as one would expect (except for one star Trusts).

#### 3.6 Structural

The structural variables that measure size confirm the absence of any clear link between hospital size and star rating. There are big changes between the two years, probably largely associated with the changes in ratings between the two years. The zero star group contained larger hospitals in the first year whilst the three star category contained larger hospitals in the second year. Free beds is a measure of spare capacity and suggests that the numbers of free beds increase with star rating.

The pattern of research expenditure changes markedly between 2000/01 and 2001/02, probably reflecting the big shifts in teaching status in year 2, when teaching hospitals appear to have secured markedly higher ratings.

Merger activity does not seem to explain differences in star ratings.

Three star Trusts also appear to be slightly more specialised than other Trusts in terms of the resources they devote to a narrower scope of activity (proportion of HRGs) than other Trusts, a phenomenon reinforced by the movement of teaching hospitals into this group in the second year.

#### 3.7 **Financial**

Unit costs are a casemix-adjusted cost weighted share of inpatient, outpatient and A&E activity and have been used in the NHS as a measure of 'productivity' (Jacobs and Dawson, 2003). In the first year there is some evidence of lower costs amongst higher rated Trusts, but there is little clear pattern in the second year. Three star Trusts also appear to be more 'efficient' than zero star Trusts, as measured by the overall reference cost index.

Financial balance is poorer for zero star Trusts and they claim more financial support as a result (both variables were used in the construction of the star ratings). Similarly, retained surplus appears to be higher for three star Trusts.

Salary expenditure per WTE is higher in zero star Trusts. Zero star Trusts also appear to pay a higher proportion of salary expenditure on consultant salaries (and medical salaries) compared to other Trusts. (This hints at an interesting association between levels of consultant salaries, vacancy rates, and Trust performance that deserves further analysis.)

Zero star Trusts generally employ more nurses per bed, have slightly higher vacancy rates for nurses compared to three star Trusts (though this pattern is not consistent) and have a distinctly higher percent agency salary spend for nurses. There is therefore clear evidence that use of the nursing labour market is related to star rating.

#### 3.8 **Environment**

Population density, the market forces factor and the Herfindahl competition index seek to measure factors such as metropolitan effects, land and building prices, differential wage rates and competitive pressures, but show no differential effect across star categories.

Heated volume per bed is higher in zero star Trusts than other Trusts. This variable may pick up high utility charges in running the hospital and may reflect the fact that some Trust have inherited older buildings that are more expensive to heat.

The casemix index is based on Healthcare Resource Groups (HRGs) weighted by reference costs standardised so that the average hospital casemix equals 100 and those Trusts dealing with more complex cases receive a number above 100. The descriptive statistics suggest that zero and one star Trusts saw a more complex casemix in 2000/01. There is less systematic difference between the categories in 2001/02.

Zero star Trusts receive a slightly higher proportion of transfers into their hospitals than other trusts. The position with transfers out is less clear-cut.

It is important to note that the descriptive statistics do not show whether variables display statistically significant differences across star categories (this is done in section 4 of the report). Also, even where differences exist, they may not always be material, in the sense of having a noticeable impact on patient care.

#### 4. **Analysis of Variance**

Table 3, shown in the Appendix due to its length, gives analysis of variance (ANOVA) results for each of the Trust variables with the star rating variable which is categorical. The intention is to determine whether the variations between star ratings are statistically significant. The one-way ANOVA results use least squares to fit a linear model. The last column gives the number of observations (n) used in the regression, the significance level for the F statistic, whether the overall model is significant or not, and the R-squared or the proportion of variation explained.

The results are interpreted as follows (using the mortality index results as an example). The mean level on the mortality index for zero star Trusts (the omitted group) is 99.4 in 2000/01 (standard error 2.773). This corresponds with the mean of the variable given in the descriptive statistics for zero star Trusts in 2000/01 (Table 2). One star Trusts' mortality index is -1.355 lower (not significantly) at 98.045 (standard error 3.345) (p = 0.686). Three star Trusts' mortality index is 1.776 higher than zero star Trusts (not significantly) at 101.176 (standard error 3.155) (p = 0.574). Two star Trusts' mortality index is only slightly higher 0.632 than zero star Trusts (not significantly) at 100.032 (standard error 2.917) (p = 0.829). The overall model for the regression with this variable is not significant (p = 0.627) with n = 160 and 0.011(1.1%) of the variation in mortality explained by star rating.

All results that are significant at the 10 percent level (coefficients, constants and overall model results) are highlighted in bold for ease of recognition. The same variables are used in this analysis as in the descriptive statistics.

Variables that were used to construct the star ratings in either of the two years are marked with an asterisk since we would expect them to be more significant.

Since the omitted category in Table 3 is zero star Trusts which give small numbers for comparison (12 and 10 observations respectively across the two years), the results may be considered more conservative, since one is less likely to achieve statistical significance.

Variables that are significantly associated with star ratings in the ANOVA analysis for 2000/01 include:

## **Clinical outcome**

Complaints (decrease with star rating),

## Responsiveness

- Patients being told their doctor's name (increase with star rating),
- Patients staying in a single sex ward (increase with star rating),
- Patients satisfied with their discharge procedure (increase with star rating),

#### **Process**

- Average length of stay (variable),
- Total inpatient spells, episodes, electives, first outpatient attendances (decrease with star rating),
- Daycase rates per inpatient spell (increase with star rating),
- Occupancy rates (decrease with star rating),

### **Human resources**

- WTE consultants, medical staff, nursing staff (decrease with star rating),
- Proportion of medical staff, consultants, nursing staff (decrease with star rating);
- Proportion of allied health professionals (increase with star rating).
- Doctors, consultants and nurses per bed (decrease with star rating),
- Vacancy rates for nurses\* (decrease with star rating),
- Vacancy rates for consultants\* (increase with star rating),
- Sickness absence rate\* (increase with star rating),

## Waiting

- Outpatients waiting <13 weeks\* (increase with star rating).
- Breast cancer waiting <2 weeks\* (increase with star rating),

#### Financial

- Total expenditure, total income, income private patients (decrease with star rating),
- Reference cost index (decrease with star rating),
- Non-salary expenditure, salary expenditure per WTE (decrease with star rating),
- Non-NHS salaries, total salaries (decrease with star rating),
- Proportion consultant salaries, proportion total medical salaries (decrease with star rating),
- Percentage salary spend on agency medical staff (variable),
- Percentage salary spend on agency nursing staff and all salaries (decrease with star rating),

## **Environment**

- Heated volume per bed (decrease with star rating),
- HRG casemix (decrease with star rating)
- Population under 15 years (decrease with star rating).

Variables that are significantly associated with star ratings in the table of ANOVA results for 2001/02 include:

## **Clinical outcome**

- Readmission rate (increase with star rating),
- Deaths from emergency surgery\* (increase with star rating),
- Clinical negligence\* (CNST) (increase with star rating),
- CHI review\* (increase with star rating),

## Responsiveness

Inpatient satisfaction measures on coordination of care\*, information and education\*, physical and emotional needs\*, prompt access\* and respect and dignity\* (all increase with star rating),

## **Process**

Information governance\* (increase with star rating),

## **Human resources**

- Vacancy rates for nurses\* (variable)
- Vacancy rates for consultants\* (increase with star rating),
- Staff satisfaction survey\* (increase with star rating),

## Waiting

- Percent patients waiting less than 6 months\*, outpatients waiting <13 weeks\*, cancer 2 week waits\* (all increase with star rating),
- Outpatients waiting 26 weeks\*, A&E 12 hour trolley waits\*, (decrease with star rating),
- Cancelled operations in 1 month\* (decrease with star rating),

## **Financial**

- Financial balance\* (increase with star rating)
- Claiming financial support\* (decrease with star rating),
- Retained surplus / deficit (increase with star rating),
- Percentage salary spend on agency staff all salaries (decrease with star rating).

It is worth noting that the CHI review appears to be the single most important determinant of star rating and explained the most variation of all the variables.

#### 5. Concluding comments

These data are presented as a very preliminary examination of Trust characteristics. They do not offer a coherent model of hospital behaviour or test hypotheses. Rather they are intended to inform debate and stimulate further research into the links between various dimensions of Trust performance. In the future, they may offer a quantitative basis for examining the impact of star ratings.

The results are nevertheless broadly suggestive of the following. Zero star Trusts appear to perform better in terms of clinical outcomes such as death rates and readmissions, although this is not statistically significant. However, zero star Trusts do worse than other Trusts across most patient satisfaction measures derived from inpatient survey questionnaires.

Vacancy rates for nurses are higher in lower star Trusts and the percentage of salary spend on agency nurses is higher compared to three star Trusts. As a result the total percent salary spend on agency staff is lower for three star Trusts. Elsewhere a higher proportion of agency nurses has also been associated with lower patient satisfaction (Audit Commission, 2001), a finding consistent with our results.

On the other hand consultant vacancy rates are significantly higher in higher star rated Trusts compared to zero star Trusts. Thus the use made by Trusts of the labour market for nurses and consultants appear to be very different. Numerous interesting research questions concerning the link between human resources and clinical outcomes are suggested by these data.

Zero star Trusts spend more on salaries and in general do worse on financial and efficiency measures. Three star Trusts on the other hand, outperform others on two grounds fairly consistently: waiting times and financial balance, which suggest either more efficient management or lower capacity constraints. Variables such as occupancy rates and length of stay are slightly lower in three star Trusts, they have shorter trolley waits and more patients staying in a single sex ward for the duration of their stay. One reading of these data is that the different categories of Trusts may be

focusing on different elements of performance (efficiency and patient satisfaction versus clinical outcomes). Again, an interesting research agenda is suggested.

It is clear from these preliminary results that lower star Trusts exhibit numerous signals of organisational stress that are less pronounced in their higher rated counterparts. The crucial policy and research question, which this preliminary analysis cannot address, is whether this difference is due to exogenous factors, such as funding levels, or internal factors, such as managerial competence. Our future research will seek to address this crucial question.

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## 7. Appendix: Table of results

Table 3: Analysis of variance of star ratings with Trust variables relative to zero star Trusts

Trust variables	Year	0 star (dropped)	1 star	2 star	3 star	ANOVA regression statistics
		Constant Standard Error	Coefficient Standard Error P >  t	Coefficient Standard Error	Coefficient Standard Error	n Prob > F R-squared
Clinical outcome		P >  t		P >  t	P >  t	
Mortality index	2000/01	99.400	-1.355	0.632	1.776	160
Mortality macx	2000/01	2.773	3.345	2.917	3.155	0.627
		0.000	0.686	0.829	0.574	0.011
	2001/02	96.200	2.569	3.768	4.353	138
	2001/02	2.833	3.334	3.047	3.184	0.534
		0.000	0.442	0.218	0.174	0.016
Readmission rate	2000/01	5.688	0.226	0.218	0.220	164
Acadimission rate	2000/01	0.277	0.339	0.213	0.319	0.899
		0.000	0.506	0.458	0.492	0.004
	2001/02	5.595	0.385	0.415	0.608	150
	2001/02	0.303	0.347	0.321	0.333	0.298
		0.000	0.270	0.321	0.070	0.025
Readmissions following hip	2000/01	7.175	0.725	0.516	0.990	158
fracture	2000/01					
		0.787	0.964	0.833	0.913	0.697
	0004/00	0.000	0.453	0.536	0.280	0.009
	2001/02	7.093	0.506	1.096	1.185	149
		0.794	0.913	0.844	0.875	0.384
		0.000	0.581	0.196	0.178	0.021
Readmissions following stroke	2000/01	6.762	1.429	0.452	-0.069	159
otrono		0.766	0.931	0.805	0.874	0.156
		0.000	0.127	0.576	0.937	0.033
	2001/02	7.349	-0.019	0.040	-0.148	149
		0.805	0.925	0.855	0.887	0.984
		0.000	0.983	0.962	0.868	0.001
Deaths from emergency surgery	2000/01	2973.49	-3.869	-21.744	-160.845	171
		196.832	239.316	207.174	225.653	0.712
		0.000	0.987	0.917	0.477	0.008
	2001/02	2645.96	489.357	364.821	156.793	149
		171.441	197.963	182.129	188.530	0.013
		0.000	0.015	0.047	0.407	0.071
Discharge to usual residence	2000/01	48.423	-0.157	-2.715	-2.024	156
following hip fracture		2.889	3.511	3.041	3.310	0.595
		0.000	0.964	0.373	0.542	0.012
	2001/02	49.259	0.247	-2.452	-0.833	148
		2.633	3.082	2.817	0.293	0.455
		0.000	0.936	0.386	0.777	0.018
Discharge to usual residence	2000/01	48.755	2.167	0.141	0.146	159
following stroke		1.915	2.289	2.003	2.161	0.517
		0.000	0.345	0.944	0.946	0.015
	2001/02	50.837	-0.336	0.267	-1.467	149
		1.689	1.977	1.805	1.878	0.424
		0.000	0.865	0.883	0.436	0.019

Clinical negligence	2000/01	1130.750	-428.098	-352.995	400.007	172
Clinical negligence expenditure	2000/01	1130.730	-420.090	-352.995	-409.007	172
		219.106	270.287	231.637	253.904	0.393
		0.000	0.115	0.129	0.109	0.017
	2001/02	525.700	153.994	110.141	-135.582	185
		391.301	442.323	412.936	427.948	0.655
		0.181	0.728	0.790	0.752	0.009
Clinical negligence (CNST)	2000/01					
	2001/02	0.800	0.230	0.248	0.333	171
		0.162	0.184	0.171	0.178	0.307
		0.000	0.213	0.149	0.064	0.021
Complaints	2000/01	563.500	-109.804	-149.752	-187.471	173
		59.556	73.468	62.930	69.015	0.047
		0.000	0.137	0.018	0.007	0.046
	2001/02					
Complaints resolved	2000/01	51.885	-2.615	0.284	4.246	173
		5.333	6.579	5.636	6.181	0.554
		0.000	0.692	0.960	0.493	0.012
	2001/02					
CHI review	2000/01					
	2001/02	1.286	0.896	0.900	2.437	90
		0.186	0.214	0.200	0.219	0.000
D		0.000	0.000	0.000	0.000	0.674
Responsiveness Patients trust doctor	12000/04	80.250	0.361	1.440	2 045	141
Fallents trust doctor	2000/01	1.527	1.835	1.598	2.815 1.713	0.169
		0.000	0.844	0.369	0.103	0.109
	2001/02	83.000	-1.524	-1.455	0.163	119
	2001/02	1.363	1.656	1.482	1.556	0.336
		0.000	0.359	0.328	0.969	0.029
Patients trust nurses	2000/01	80.250	-2.639	-1.214	-0.766	141
. alberte description		1.457	1.751	1.525	1.634	0.364
		0.000	0.134	0.427	0.640	0.023
	2001/02	80.800	-1.943	-1.927	-1.406	119
		1.331	1.617	1.447	1.519	0.577
		0.000	0.232	0.185	0.357	0.017
Patients told doctor's name	2000/01	64.125	3.375	8.042	8.133	141
		2.498	3.002	2.614	2.802	0.002
		0.000	0.263	0.003	0.004	0.099
	2001/02	69.400	-0.400	1.964	3.539	119
		2.316	2.814	2.517	2.643	0.228
		0.000	0.887	0.437	0.183	0.037
				1	l .	

Cleanliness	2000/01		I		1	1
Cleariniess	2000/01					
	0004/00	0.400	0.407	0.000	0.444	4-4
	2001/02	3.400	-0.127	-0.026	0.111	171
		0.154	0.175	0.163	0.170	0.192
		0.000	0.470	0.871	0.515	0.028
Process			l	· L	I.	I
ALOS	2000/01	3.893	0.617	0.046	-0.162	172
		0.229	0.282	0.242	0.265	0.004
		0.000	0.033	0.850	0.544	0.075
	2001/02	3.721	0.470	0.276	0.200	185
		0.305	0.345	0.322	0.333	0.461
		0.000	0.174	0.393	0.549	0.014
Total spells	2000/01	69549	-19192	-10053	-8091	172
		7937	9791	8391	9198	0.233
		0.000	0.052	0.233	0.380	0.025
	2001/02	58162	-3304	-2460	3704	185
		10023	11330	10577	10961	0.682
		0.000	0.771	0.816	0.736	0.008
Total episodes	2000/01	76652	-20326	-11044	-7594	172
		8827	10889	9331	10229	0.253
		0.000	0.064	0.238	0.459	0.024
	2001/02	65701	-4349	-3603	3208	185
		11243	12709	11865	12296	0.695
		0.000	0.733	0.762	0.794	0.008
Total inpatient days	2000/01	262143	-44467	-32951	-41899	172
		29168	35981	30836	33800	0.609
		0.000	0.218	0.287	0.217	0.011
	2001/02	209808	14446	3413	26785	185
		37545	42441	39621	41061	0.713
		0.000	0.734	0.931	0.515	0.008
Electives	2000/01	45586	-13759	-7040	-5504	172
		5487	6768	5800	6358	0.196
		0.000	0.044	0.227	0.388	0.028
	2001/02	37750	-3139	-1260	2805	185
		6707	7581	7078	7335	0.592
		0.000	0.679	0.859	0.703	0.011
Emergency admissions	2000/01	23963	-5433	-3013	-2586	172
		2676	3301	2829	3101	0.409
		0.000	0.102	0.288	0.405	0.017
	2001/02	20412	-165	-1199	899	185
		3575	4040	3772	3909	0.768
		0.000	0.967	0.751	0.818	0.006
Emergency index	2000/01	0.018	-0.001	0.002	0.002	163
		0.004	0.004	0.003	0.004	0.629
		0.000	0.789	0.535	0.693	0.011
	2001/02	0.017	0.003	0.002	0.002	161
		0.003	0.004	0.003	0.004	0.917
		0.000	0.509	0.544	0.660	0.003
			L		l	l .

Emergency admissions per	2000/01	0.352	0.018	0.006	0.003	172
inpatient spell		0.015	0.019	0.016	0.018	0.714
		0.000	0.348	0.713	0.856	0.008
	2001/02	0.359	0.005	-0.027	-0.025	185
		0.029	0.032	0.030	0.032	0.278
		0.000	0.869	0.382	0.422	0.021
Total outpatient attendances	2000/01	283132	-73011	-44333	-52851	172
		36550	45088	38640	42355	0.435
		0.000	0.107	0.253	0.214	0.016
	2001/02	247171	-16405	-8830	4750	185
		45449	51375	47962	49705	0.913
		0.000	0.750	0.854	0.924	0.003
Total first outpatient	2000/01	87132	-28817	-18261	-19395	172
attendances		12441	15348	13153	14417	0.318
		0.000	0.062	0.167	0.180	0.021
	2001/02	65468	877	-3209	3241	185
	200 1702	11349	12829	11977	12413	0.775
		0.000	0.946	0.789	0.794	0.006
Total outpatients per inpatient	2000/01	4.408	-0.009	0.0331	-0.591	172
spell		0.440	0.544			0.407
		0.412	0.511	0.438	0.481	0.407
	2001/02	0.000 4.033	0.985	0.452	0.221	0.017
	2001/02	4.033 0.736	0.391 0.832	0.628	0.222	185 0.708
		0.736	0.639	0.777 0.420	0.805 0.782	0.708
First outpatient attendances	2000/01	1.323	-0.145	-0.137	-0.201	172
per inpatient spell	2000/01	0.123	0.153	0.131	0.143	0.574
		0.000	0.345	0.191	0.163	0.012
	2001/02	1.121	0.140	0.019	0.053	185
	2001702	0.118	0.133	0.124	0.128	0.413
		0.000	0.294	0.875	0.684	0.016
Daycases per spell	2000/01	0.455	0.049	0.059	0.062	172
		0.023	0.028	0.024	0.027	0.093
		0.000	0.084	0.015	0.020	0.037
	2001/02	0.537	-0.035	-0.048	-0.033	185
		0.032	0.036	0.033	0.035	0.486
		0.000	0.341	0.155	0.345	0.013
Percent delayed discharges	2000/01					
	2001/02	5.382	0.603	-0.708	-1.412	170
		0.958	1.084	1.018	1.060	0.027
-	000000	0.000	0.579	0.487	0.185	0.054
Occupancy rate	2000/01	86.011	-0.049	-2.607	-5.300	172
		1.387	1.711	1.466	1.607	0.000
	2004/20	0.000	0.977	0.077	0.001	0.111
	2001/02	85.708	0.627	-2.573	-3.078	185
		1.928 0.000	2.179	2.035 0.208	2.108 0.146	0.019 0.053
		0.000	0.774	0.200	0.140	0.000

Information governance	2000/01					
momaton governance	2000.01					
	2001/02	19.300	0.811	2.374	4.414	181
		1.888	2.135	1.996	2.073	0.024
		0.000	0.704	0.236	0.035	0.052
Data quality	2000/01	0.888	0.003	0.006	0.028	173
		0.025	0.031	0.026	0.029	0.554
		0.000	0.923	0.831	0.333	0.012
	2001/02	0.889	-0.006	0.031	0.024	180
		0.023	0.025	0.024	0.025	0.059
		0.000	0.820	0.200	0.329	0.041
Human resources					l.	
WTE consultants	2000/01	135.264	-44.417	-34.428	-42.279	172
		16.415	20.249	17.354	19.022	0.128
		0.000	0.030	0.049	0.028	0.033
	2001/02	98.826	5.181	-1.721	16.119	185
		20.905	23.631	22.061	22.863	0.498
		0.000	0.827	0.938	0.482	0.013
SHOs and HOs	2000/01	84.636	-9.732	-10.805	-7.045	159
		9.905	12.227	10.475	11.395	0.745
		0.000	0.427	0.304	0.537	0.008
	2001/02	81.660	-16.623	-14.888	-7.160	154
		11.403	13.349	12.139	12.688	0.428
		0.000	0.215	0.222	0.573	0.018
WTE staff	2000/01	3426.167	-778.297	-441.482	-469.567	172
		427.131	526.905	451.558	494.967	0.525
		0.000	0.142	0.330	0.344	0.013
	2001/02	2728.700	86.661	127.139	548.615	185
		536.771	606.760	566.449	587.449	0.466
		0.000	0.887	0.823	0.351	0.014
WTE medical staff	2000/01	378.383	-126.143	-93.841	-122.272	172
		47.708	58.852	50.436	55.285	0.131
		0.000	0.034	0.065	0.028	0.033
	2001/02	287.791	-0.218	-16.838	25.111	185
		60.423	68.302	63.764	66.082	0.669
		0.000	0.997	0.792	0.704	0.009
WTE administrative staff	2000/01	704.167	-165.167	-93.118	-109.281	172
		89.291	110.148	94.398	103.472	0.504
		0.000	0.136	0.325	0.292	0.014
	2001/02	571.200	22.800	25.322	95.996	185
		111.179	125.676	117.327	121.592	0.649
		0.000	0.856	0.829	0.431	0.009
WTE nursing staff	2000/01	1191.167	-301.384	-199.637	-220.167	172
		139.151	171.655	147.108	161.250	0.374
		0.000	0.081	0.177	0.174	0.018
	2001/02	916.900	14.128	23.748	136.453	185
		173.544	196.172	183.139	189.797	0.637
		0.000	0.943	0.897	0.473	0.009

Proportion of medical staff	2000/01	11.018	-1.292	-1.617	-2.343	172
		0.619	0.765	0.655	0.718	0.012
		0.000	0.095	0.015	0.001	0.063
	2001/02	10.489	-0.277	-1.045	-1.148	185
		0.762	0.861	0.804	0.833	0.205
		0.000	0.748	0.195	0.170	0.025
Proportion of consultants	2000/01	3.934	-0.456	-0.556	-0.793	172
·		0.202	0.248	0.213	0.233	0.008
		0.000	0.068	0.010	0.001	0.067
	2001/02	3.776	-0.081	-0.317	-0.299	185
		0.259	0.293	0.273	0.283	0.360
		0.000	0.784	0.249	0.292	0.018
Proportion of admin staff	2000/01	20.934	-0.451	-0.482	-0.663	172
. roportion of damin otali		0.613	0.757	0.649	0.711	0.831
		0.000	0.552	0.459	0.352	0.005
	2001/02	21.005	-0.026	0.089	-0.226	185
	2001/02	0.825	0.932	0.870	0.902	0.924
		0.025	0.932	0.870	0.802	0.924
December of constant of the	0000/04					
Proportion of nursing staff	2000/01	35.014	-1.054	-1.493	-2.214	172
		0.9886	1.216	1.042	1.143	0.242
	0004/00	0.000	0.387	0.154	0.054	0.007
	2001/02	33.467	-0.343	-0.288	-1.630	185
		1.382	1.562	1.458	1.511	0.315
		0.000	0.826	0.843	0.282	0.003
Proportion of Scientific Technical Therapeutic staff	2000/01	14.839	-0.052	-0.160	-0.596	172
recillical Therapeutic Stan		0.697	0.861	0.737	0.808	0.773
		0.000	0.952	0.828	0.462	0.007
	2001/02	14.475	0.021	0.562	0.477	185
		0.930	1.051	0.981	1.017	0.781
		0.000	0.984	0.568	0.640	0.006
Proportion of allied health professionals	2000/01	4.739	0.821	0.376	0.259	155
professionals		0.348	0.441	0.370	0.410	0.248
		0.000	0.064	0.311	0.527	0.027
	2001/02	4.656	0.422	0.416	0.600	185
		0.579	0.654	0.611	0.633	0.806
		0.000	0.520	0.496	0.345	0.005
Consultants per bed	2000/01	15.279	-2.159	-2.587	-3.391	172
регисти		0.962	1.186	1.016	1.114	0.025
		0.000	0.070	0.012	0.003	0.037
	2001/02	13.953	0.492	0.214	1.831	185
		2.177	2.461	2.297	2.381	0.583
		0.000	0.842	0.926	0.443	0.011
Doctors per bed	2000/01	43.100	-7.191	-9.046	-11.100	160
Doctors per bed	2000/01	3.038	3.664	3.196	3.456	0.014
		0.000	0.052	0.005	0.002	0.066
	2001/02	38.600	-1.907	-5.068	-3.363	138
	2001/02	3.090	3.636	3.322	3.473	0.312
		0.000	0.601	0.129	0.335	0.026
Nurses per bed	2000/01	134.700	-21.700	-15.519	-19.258	160
Marses her nea	2000/01	6.102	7.360	6.419	6.943	0.029
		0.000	0.004		0.006	0.029
	2004/00			0.017		
	2001/02	123.900	-5.746 7.227	-5.837	-3.900	138
		6.227	7.327	6.696	6.999	0.823
		0.000	0.434	0.385	0.578	0.007

Vacancy rate allied health professionals	2000/01	42.964	-8.254	-6.349	-15.401	165
professionals		9.716	11.899	10.247	11.178	0.438
		0.000	0.489	0.536	0.170	0.017
	2001/02	44.414	2.230	-3.829	-7.522	171
		12.054	13.760	12.760	13.326	0.721
		0.000	0.871	0.764	0.573	0.008
Vacancy rate nurses	2000/01	49.838	4.955	-13.639	-22.857	165
·		11.343	13.893	11.963	13.050	0.038
		0.000	0.722	0.256	0.082	0.051
	2001/02	32.286	23.394	-3.642	3.621	171
		11.286	12.884	11.947	12.478	0.004
		0.005	0.071	0.761	0.772	0.076
Vacancy rate consultants	2000/01	8.668	10.961	19.700	22.644	165
•		8.945	10.955	9.434	10.291	0.097
		0.334	0.319	0.038	0.029	0.038
	2001/02	5.380	17.419	21.572	18.894	170
		8.366	9.550	8.862	9.249	0.114
		0.521	0.070	0.016	0.043	0.035
Sickness absence rate	2000/01	4.083	0.249	0.451	0.604	165
		0.275	0.319	0.286	0.308	0.152
		0.000	0.436	0.116	0.051	0.032
	2001/02	4.463	-0.045	0.210	0.029	168
		0.247	0.280	0.261	0.751	0.312
		0.000	0.870	0.422	0.913	0.022
Staff satisfaction survey	2000/01					
	2001/02	3.159	-0.019	0.021	0.091	168
		0.044	0.051	0.047	0.049	0.006
		0.000	0.709	0.650	0.069	0.072
Percent comply with junior	2000/01					
doctors' hours						
	2001/02	0.523	0.019	0.089	0.089	171
	200 02	0.066	0.076	0.071	0.073	0.251
		0.000	0.799	0.204	0.224	0.024
Waiting			000	0.20	V	0.02.
Median waiting time	2000/01	55.583	-1.322	-8.161	-9.326	172
<b>3</b> · · ·		4.799	5.921	5.074	5.562	0.117
		0.000	0.824	0.110	0.095	0.034
	2001/02	51.200	7.741	-1.734	-2.788	183
		6.154	7.001	6.494	6.731	0.072
		0.000	0.270	0.790	0.679	0.038
Percent waiting less than 6 months	2000/01					
	2001/02	74.456	-2.061	6.118	6.984	180
		2.542	2.873	2.686	2.794	0.000
		0.000	0.474	0.024	0.013	0.166
				1	1	

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Structural						
Average beds	2000/01	872.292	-164.281	-92.139	-97.140	172
		97.303	120.032	102.867	112.757	0.588
		0.000	0.173	0.372	0.390	0.011
	2001/02	706.088	51.336	10.078	79.734	185
		126.682	143.199	133.686	138.546	0.775
		0.000	0.720	0.940	0.566	0.006
Free beds	2000/01	130.687	-29.665	-3.404	20.842	172
		18.597	22.941	19.661	21.551	0.036
		0.000	0.198	0.863	0.335	0.049
	2001/02	114.672	-10.205	0.785	15.820	185
	2001702	23.893	27.008	25.214	26.131	0.449
		0.000	0.706	0.975	0.546	0.445
Citas with more than 50 hads	2000/01	2.363	-0.554	-0.450	-0.277	163
Sites with more than 50 beds	2000/01					
		0.324	0.400	0.342	0.371	0.457
	0004/00	0.000	0.168	0.190	0.456	0.016
	2001/02	2.100	-0.479	-0.348	-0.077	161
		0.336	0.389	0.356	0.371	0.307
		0.000	0.220	0.331	0.836	0.023
Percent research revenue expenditure	2000/01	1.270	0.078	0.386	-0.485	163
experiantare		1.079	1.332	1.139	1.237	0.673
		0.241	0.953	0.735	0.695	0.009
	2001/02	0.761	0.306	1.892	2.230	161
		1.883	2.184	2.000	2.086	0.431
		0.687	0.888	0.346	0.287	0.017
Teaching status	2000/01	0.167	0.007	-0.011	-0.081	173
rodorning otatao		0.102	0.126	0.108	0.118	0.738
		0.105	0.954	0.917	0.496	0.007
	2001/02	0.200	-0.135	-0.073	0.031	151
	2001702	0.111	0.128	0.119	0.125	0.229
		0.075	0.292	0.539	0.806	0.029
Students per spell	2000/01	0.0009	0.0001	-0.0003	-0.0004	163
otadents per spen	2000/01	0.0003	0.0004	0.0003	0.0004	0.357
		0.003	0.823	0.410	0.0004	0.020
	2001/02	0.0008	-0.0003	-0.0002	0.0001	161
	2001/02	0.0004		0.0002		0.296
			0.0004 0.387		0.0004	
OIETD	0000/04	0.038	0.387	0.597	0.769	0.023
SIFTR	2000/01					
	2001/02	7350	-1611	970	3268	185
		4173	4717	4403	4563	0.398
		0.080	0.733	0.826	0.475	0.016
Merged	2000/01	0.083	-0.039	-0.015	-0.055	173
- g-+		0.067	0.083	0.072	0.078	0.812
		0.222	0.635	0.831	0.488	0.006
	2001/02	0.000	0.083	0.031	0.438	186
	200 1/02	0.000	0.084	0.043	0.078	0.649
		0.075	0.327	0.079	0.082	0.049
Specialisation index	2000/01	0.999	0.012	0.019	0.008	163
	2000/01	0.271	0.012	0.019	0.008	0.993
		0.001	0.991	0.819	0.092	0.993
	2004/02					
	2001/02	0.270	0.081	0.307	0.375	161
		0.236	0.273	0.250	0.261	0.239
		0.253	0.767	0.221	0.152	0.026

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Non-salary expenditure (000)	2000/01	57600	-17000	-13100	-19300	172
Non-salary experiorare (000)	2000/01	8289	10200	8763	9605	0.225
		0.000	0.099	0.137	0.046	0.223
	2001/02	47100	-6854	-5868	-394	185
	2001/02					
		9374	10600	9892	10300	0.658
	0000/04	0.000	0.519	0.554	0.969	0.009
Non healthcare expenditure (000)	2000/01	2404	488	629	802	172
(000)		798	984	843	925	0.848
		0.003	0.621	0.457	0.387	0.005
	2001/02	3334	-699	-246	303	185
		900	1018	950	985	0.435
		0.000	0.493	0.796	0.759	0.015
Salary expenditure per WTE	2000/01	28329	-555	-2222	-3291	172
, , , , , , , , , , , , , , , , , , ,		938	1157	992	1087	0.002
		0.000	0.632	0.026	0.003	0.082
	2001/02	29426	-1183	-754	-1562	185
	200 02	1384	1565	1460	1513	0.638
		0.000	0.451	0.606	0.304	0.009
Proportion management	2000/01	4.348	0.047	-0.125	0.065	172
salaries	2000/01			0.120		
		0.344	0.425	0.364	0.399	0.826
		0.000	0.911	0.733	0.870	0.005
	2001/02	4.184	0.619	0.221	0.001	184
		0.496	0.562	0.523	0.542	0.330
		0.000	0.273	0.673	0.998	0.019
Proportion consultant salaries	2000/01	13.102	-1.014	-0.683	-1.044	184
		0.463	0.572	0.490	0.537	0.554
		0.000	0.078	0.165	0.053	0.012
	2001/02	13.525	-0.692	-0.762	-0.914	184
		0.583	0.661	0.615	0.637	0.554
		0.000	0.296	0.217	0.154	0.012
Proportion nurses salaries	2000/01	36.954	-0.324	-0426	2.398	172
		1.370	1.690	1.448	1.587	0.108
		0.000	0.848	0.769	0.133	0.035
	2001/02	37.474	-2.334	-1.092	-0.734	184
		1.598	1.812	1.687	1.748	0.427
		0.000	0.199	0.518	0.675	0.015
Proportion total medical salaries	2000/01	24.276	-1.269	-1.126	-1.749	172
		0.823	1.016	0.871	0.954	0.323
		0.000	0.213	0.198	0.069	0.020
	2001/02	24.659	-0.316	-0.778	-1.016	184
		0.927	1.052	0.979	1.014	0.612
		0.000	0.764	0.764	0.318	0.010
Total NHS salaries (000)	2000/01	90500	-21900	-16100	-18800	172
		11000	13600	11700	12800	0.422
		0.000	0.110	0.170	0.144	0.016
	2001/02	75400	370	1543	11600	185
		14900	16900	15800	16300	0.607
		0.000	0.983	0.922	0.479	0.010
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Non NHS salaries (000)	2000/01	6128	-1751	-2636	-3961	172
		1152	1420	1217	1334	0.019
		0.000	0.219	0.032	0.003	0.057
	2001/02	5885	-1050	-2163	-1528	185
		1353	1529	1428	1479	0.324
		0.000	0.493	0.132	0.303	0.019
Percent agency salary spend	2000/01	3.522	1.758	-0.139	0.359	162
for medical staff		0.823	1.041	0.873	0.957	0.061
		0.000	0.093	0.873	0.708	0.045
	2001/02	4.298	1.056	-0.564	-0.213	184
		1.255	1.423	1.325	1.373	0.243
		0.001	0.459	0.670	0.877	0.023
Percent agency salary spend for nurses	2000/01	8.795	0.035	-2.141	-5.439	169
		2.189	2.699	2.317	2.536	0.028
		0.000	0.990	0.357	0.033	0.053
	2001/02	9.217	-0.094	-2.695	-3.049	184
		2.171	2.462	2.291	2.375	0.139
		0.000	0.969	0.241	0.201	0.029
Total percent agency salary spend	2000/01	6.212	-0.597	-2.127	-3.320	172
		0.931	1.148	0.984	1.079	0.002
		0.000	0.604	0.032	0.002	0.082
	2001/02	6.467	-0.437	-1.907	-1.806	184
		1.088	1.233	1.148	1.190	0.079
		0.000	0.724	0.098	0.131	0.037
Total salaries (000)	2000/01	96700	-23700	-18700	-22700	172
		11700	14400	12300	13500	0.355
		0.000	0.103	0.131	0.094	0.019
	2001/02	81400	-669	-610	10100	185
		15700	17700	16600	17200	0.637
		0.000	0.970	0.971	0.559	0.009
Environment				•	•	
Population density	2000/01	15.027	7.522	3.026	-4.327	159
		6.506	8.099	6.880	7.458	0.207
		0.022	0.354	0.661	0.563	0.029
	2001/02	12.010	1.807	8.420	7.437	151
		7.178	8.323	7.673	7.968	0.456
		0.096	0.828	0.274	0.353	0.075
Market forces factor	2000/01	1.040	0.022	-0.011	-0.031	172
		0.023	0.029	0.025	0.027	0.117
		0.000	0.455	0.658	0.260	0.034
	2001/02	0.989	0.012	0.011	0.020	185
		0.022	0.026	0.024	0.025	0.828
		0.000	0.632	0.620	0.411	0.005
Herfindahl index	2000/01	0.311	-0.042	0.057	0.121	163
		0.093	0.115	0.098	0.107	0.256
		0.001	0.710	0.558	0.256	0.025
	2001/02	0.414	0.005	-0.073	-0.030	161
		0.096	0.111	0.102	0.106	0.625
		0.000	0.960	0.478	0.775	0.011
			<u> </u>		1	<u> </u>

Heated volume per bed	2000/01	13.206	-7.707	-9.523	-9.782	163
		2.379	2.936	2.511	2.727	0.002
		0.000	0.010	0.000	0.000	0.088
	2001/02	13.409	-9.728	-9.052	-3.339	161
		6.926	8.032	7.357	7.673	0.339
		0.055	0.228	0.220	0.664	0.021
HRG casemix index	2000/01	95.264	0.605	-4.215	-5.208	172
		2.286	2.821	2.417	2.649	0.014
		0.000	0.830	0.083	0.051	0.061
	2001/02	98.975	4.415	3.788	6.566	185
		7.154	8.087	7.550	7.824	0.823
		0.000	0.586	0.616	0.402	0.005
Patient transfers into hospital per spell	2000/01	0.023	-0.004	-0.004	-0.002	163
		0.004	0.004	0.004	0.004	0.604
		0.000	0.386	0.243	0.562	0.012
	2001/02	0.025	-0.004	-0.002	-0.003	161
		0.005	0.006	0.006	0.006	0.919
		0.000	0.602	0.784	0.609	0.003
Patient transfers out of hospital per spell	2000/01	0.011	-0.001	-0.008	-0.003	163
		0.002	0.003	0.003	0.003	0.528
		0.000	0.743	0.778	0.293	0.014
	2001/02	0.007	0.004	0.008	0.004	161
		0.007	0.008	0.007	0.008	0.673
		0.283	0.665	0.318	0.560	0.009
Population under 15	2000/01	0.175	-0.029	-0.036	-0.032	172
		0.013	0.016	0.013	0.015	0.073
		0.000	0.062	0.009	0.033	0.040
	2001/02	0.141	0.025	0.033	-0.001	185
		0.042	0.048	0.045	0.046	0.516
		0.001	0.609	0.468	0.983	0.013
Population over 60	2000/01	0.379	0.027	0.022	0.031	172
		0.017	0.021	0.018	0.020	0.487
		0.000	0.204	0.214	0.128	0.014
	2001/02	0.479	-0.029	-0.054	-0.034	185
		0.035	0.039	0.037	0.038	0.368
		0.000	0.464	0.146	0.373	0.017
Female population	2000/01	0.527	-0.018	-0.003	-0.007	172
		0.016	0.020	0.017	0.019	0.679
		0.000	0.367	0.864	0.702	0.009
	2001/02	0.506	0.010	0.014	-0.005	185
		0.020	0.022	0.021	0.022	0.583
		0.000	0.655	0.501	0.982	0.010