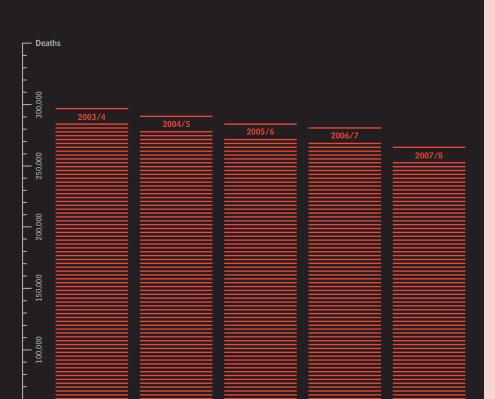
# (KEEP YOUR FINGER ON IT)

MEASURING MORTALITY IN THE NHS

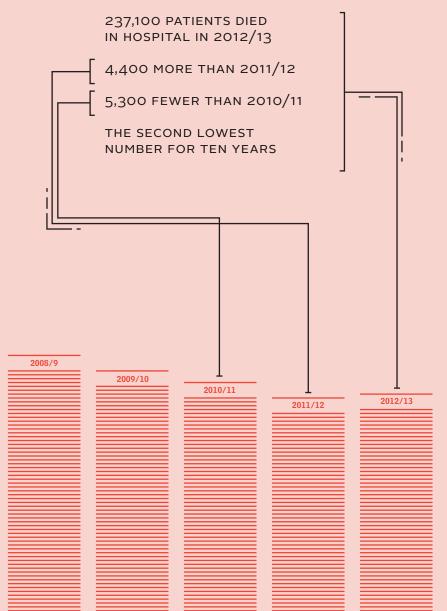
intelligence dr foster e

# MEASURING DEATHS IS A GOOD WAY OF CHECKING HOW WELL HOSPITALS ARE CARING FOR PATIENTS

FIND MORE INFORMATION ABOUT MORTALITY RATES AT myhospitalguide.com/mortality



# || 2012/13 IN NUMBERS



# WHY IS THIS IMPORTANT?

"The NHS should use mortality rate indicators such as the Hospital Standardised Mortality Ratio or suitable alternatives as one of its ways to detect potentially severe performance defects that are worth investigating further."

A promise to learn – a commitment to act (The Berwick Review), August 2013.

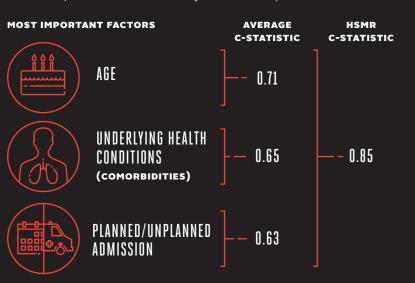


# RISK ADJUSTMENT

The first thing we need to know to create a mortality measure is the reason or diagnosis for which the patient was admitted to hospital.

HIGI	HEST CRUDE MORTALITY	LOWEST CRUDE MORTALITY							
53%	CARDIAC ARREST AND VENTRICULAR FIBRILLATION	0.2%	ABDOMINAL PAIN						

All hospitals treat different patients, some have older patients and some have patients more likely to have a serious condition. In 2012/13 we have included 12 different factors in our main way of measuring deaths in hospital (which we call the Hospital Standardised Mortality Ratio or HSMR).





The C-statistic tells you the degree to which each factor predicts the death of the patient. A statistic of 1 for age would mean that age completely determined whether or not the patient died. A statistic of 0.5 would mean there was no connection between age and the likelihood of death.

# HIGHLIGHTING HOSPITALS

We then put hospitals into groups to highlight where the variation in mortality rate is unlikely to be due to chance. These are the hospitals where the data suggests there may be problems (high rates) or better standards of care (low rates).

# SIGNIFICANTLY HIGHER THAN EXPECTED

Blackpool Teaching Hospitals NHS Foundation Trust Burton Hospitals NHS Foundation Trust George Eliot Hospital NHS Trust Heart of England NHS Foundation Trust Medway NHS Foundation Trust Mid Cheshire Hospitals NHS Foundation Trust North Cumbria University Hospitals NHS Trust North Tees and Hartlepool NHS Foundation Trust Northern Lincolnshire and Goole Hospitals NHS Foundation Trust Northumbria Healthcare NHS Foundation Trust Salisbury NHS Foundation Trust Sherwood Forest Hospitals NHS Foundation Trust South Tees Hospitals NHS Foundation Trust United Lincolnshire Hospitals NHS Trust University Hospitals Birmingham NHS Foundation Trust West Hertfordshire Hospitals NHS Trust

### **EXPLORE THE TRUST DATA AT**

yhospitalguide.com/mortalit

### HOSPITAL TRUSTS WHERE HSMR IS SIGNIFICANTLY LOWER THAN EXPECTED

Airedale NHS Foundation Trust Ashford and St Peter's Hospitals NHS Foundation Trust Barnet and Chase Farm Hospitals NHS Trust Barts Health NHS Trust Cambridge University Hospitals NHS Foundation Trust Chelsea and Westminster Hospital NHS Foundation Trust Dartford and Gravesham NHS Trust East Kent Hospitals University NHS Foundation Trust Epsom and St Helier University Hospitals NHS Trust Frimley Park Hospital NHS Foundation Trust Guy's and St Thomas' NHS Foundation Trust Hull and East Yorkshire Hospitals NHS Trust Imperial College Healthcare NHS Trust Ipswich Hospital NHS Trust James Paget University Hospitals NHS Foundation Trust King's College Hospital NHS Foundation Trust Leeds Teaching Hospitals NHS Trust Mid Staffordshire NHS Foundation Trust North Middlesex University Hospital NHS Trus North West London Hospitals NHS Trust Plymouth Hospitals NHS Trust Royal Free London NHS Foundation Trust

Salford Royal NHS Foundation Trust

St George's Healthcare NHS Trust

The Whittington Hospital NHS Trust

West Suffolk NHS Foundation Trust

University College London Hospitals NHS Foundation Trust

University Hospitals Bristol NHS Foundation Trust

# HOSPITAL TRUSTS WITH POTENTIAL POSSIBLY WENT WRONG

Hull and East Yorkshire Hospitals NHS Trust King's College Hospital NHS Foundation Trust University Hospital of North Staffordshire NHS Trust University Hospital of South Manchester NHS Foundation Trust University Hospitals Birmingham NHS Foundation Trust

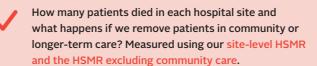
### HOSPITAL TRUSTS WITH VERY GOOD RESULTS FOLLOWING SURGERY

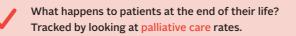
Guy's and St Thomas' NHS Foundation Trust North Middlesex University Hospital NHS Trust Northern Devon Healthcare NHS Trust Sheffield Teaching Hospitals NHS Foundation Trust Warrington and Halton Hospitals NHS Foundation Trust

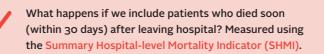
# WHAT ARE THE DIFFERENT MEASURES OF MORTALITY?

There are many ways to measure mortality. It is important to consider the following questions.

> How many patients died from the groups of diagnoses where 80% of deaths occur? Measured using the HSMR.







How many patients died after an operation possibly went wrong? Measured using our Deaths after Surgery indicator.

How many patients died who had a condition with a low immediate risk of death? Measured using our Deaths in Low-risk Conditions indicator.

# INTERROGATING THE INFORMATION

What happens if we:

**EXCLUDE COMMUNITY BEDS** 

## ONE TRUST IMPROVES ITS BANDING

### LOOK AT INDIVIDUAL HOSPITALS WITHIN A HOSPITAL TRUST

TRUSTS HAVE ONE OR MORE HOSPITALS WITH A RATE HIGHER THAN THE OVERALL TRUST

TRUSTS HAVE ONE OR MORE HOSPITALS WIT A LOWER RATE THAN THE OVERALL TRUST

3.2% (highest palliative care rate)

### **EXAMINE PALLIATIVE CARE RATES**

rates of Palliative care vary from 1.2% to 4.

ADJUSTING FOR RATES OF PALLIATIVE CARE MAKES A SIGNIFICANT DIFFERENCE TO MORTALITY (AS MEASURED BY THE SHMI) FOR 29 TRUSTS

PERCENTAGE OF DEATHS IN HOSPITAL WHERE THE PATIENT HAS BEEN IDENTIFIED AS



# BRINGING THE DATA TOGETHER

The trusts listed are either high or low across more than one measure of mortality.

THE FOLLOWING TRUSTS ARE LOW ON TWO

OR MORE OF OUR FOUR MAIN MEASURES

Cambridge University Hospitals NHS Foundation Trust

Chelsea and Westminster Hospital NHS Foundation Trust\*

James Paget University Hospitals NHS Foundation Trust

(AND ARE NOT HIGH ON ANY)

Barts Health NHS Trust

Barnet and Chase Farm Hospitals NHS Trust

Frimley Park Hospital NHS Foundation Trust\*

Guy's and St Thomas' NHS Foundation Trust\*

Imperial College Healthcare NHS Trust

Leeds Teaching Hospitals NHS Trust

Royal Free London NHS Foundation Trus

Sheffield Teaching Hospitals NHS Foundation Trust

University Hospitals Bristol NHS Foundation Trust

University College London Hospitals NHS Foundation Trust

Salford Royal NHS Foundation Trust

St George's Healthcare NHS Trust

The Whittington Hospital NHS Trust

West Suffolk NHS Foundation Trust

### THE FOLLOWING TRUSTS ARE HIGH ON AT LEAST TWO OF OUR FOUR MAIN MEASURES (AND ARE NOT LOW ON ANY)

Aintree University Hospital NHS Foundation Trust Blackpool Teaching Hospitals NHS Foundation Trust East Sussex Healthcare NHS Trust Heart of England NHS Foundation Trust

Medway NHS Foundation Trust Mid Cheshire Hospitals NHS Foundation Trust

Northumbria Healthcare NHS Foundation Trus

North Cumbria University Hospitals NHS Trust North Tees and Hartlepool NHS Foundation Trust Northern Lincolnshire and Goole Hospitals NHS Foundation Trus

North Middlesex University Hospital NHS Trust<sup>9</sup> United Lincolnshire Hospitals NHS Trust North West London Hospitals NHS Trus University Hospitals Birmingham NHS Foundation Trust\* Northern Devon Healthcare NHS Trust

West Hertfordshire Hospitals NHS Trust

\* High on three out of four

### **OUR MAIN MEASURES ARE:**

- + HSMR
- → Deaths after Surgery Deaths in Low-risk Conditions

\* Low on three out of four \*\* Low on all four

FIND MORE INFORMATION ABOUT MORTALITY RATES AT spitalguide.com/mortality

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	HSMR	HZMR EXC.	community carr	SNR var.	geaths in	Deaths after	Palliative can	NHS Acute Trust	HSMR	HSMR excl	.commun.	SMR variance SHMI	geaths in l	Deaths after	balliative Stragel,
NHS Acute Trust  Aintree University Hospital NHS Foundation Trust	100	100	n/a	116	1.41	102	38	North Tees and Hartlepool NHS Foundation Trust	110	110	1~	112	1.17	79	15
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shford and St Peter's Hospitals NHS Foundation Trust arking, Havering and Redbridge University Hospitals NHS Trust	82 101	101	n/a —	94 97	0.64 0.61	95 105	23 10	Northampton General Hospital NHS Trust  Northern Devon Healthcare NHS Trust	104 105	104 93	n/a n/a	92	0.82 1.33	133 38	16 16
Barnet and Chase Farm Hospitals NHS Trust	92	92	1^	86	0.47	68	15	Northern Lincolnshire and Goole Hospitals NHS Foundation Trust	109	109	1~	111	0.6	144	10
Barnsley Hospital NHS Foundation Trust Barts Health NHS Trust	93	93	n/a	104	0.88	113 94	13 18	Northumbria Healthcare NHS Foundation Trust  Nottingham University Hospitals NHS Trust	110	110	1 ~	94	0.89 1.03	73 90	26 15
Basildon and Thurrock University Hospitals NHS Foundation Trust	107	107	n/a	112	0.86	112	20	Oxford University Hospitals NHS Trust	105	105	-	95	0.93	110	27
ledford Hospital NHS Trust clackpool Teaching Hospitals NHS Foundation Trust	104	104	n/a n/a	110 117	0.43 0.81	128 135	17 8	Pennine Acute Hospitals NHS Trust  Peterborough and Stamford Hospitals NHS Foundation Trust	100 97	100 97	l∨ n/a	107 101	0.79	80 81	15 20
Bolton NHS Foundation Trust	100	100	n/a	104	0.46	108	15	Plymouth Hospitals NHS Trust	88	88	n/a	95	0.77	77	15
radford Teaching Hospitals NHS Foundation Trust	98	98	n/a	99	0.49	94	12	Poole Hospital NHS Foundation Trust	100	100	n/a	92	0.78	93	25
Brighton and Sussex University Hospitals NHS Trust Buckinghamshire Healthcare NHS Trust	94 109	95 108	1~	97 110	0.35	79 111	10 32	Portsmouth Hospitals NHS Trust  Royal Berkshire NHS Foundation Trust	104 106	104 106	n/a n/a	104 107	0.76 0.44	82 95	12 21
Burton Hospitals NHS Foundation Trust	115	116	n/a	102	0.73	99	10	Royal Cornwall Hospitals NHS Trust	105	105	n/a	104	0.76	74	13
Calderdale and Huddersfield NHS Foundation Trust	104	104	-	102	0.58	86	12	Royal Devon and Exeter NHS Foundation Trust	105	106	n/a	89	0.88	83	5
ambridge University Hospitals NHS Foundation Trust entral Manchester University Hospitals NHS Foundation Trust	93	93	n/a 1~	105	0.73 0.52	97 115	15 37	Royal Free London NHS Foundation Trust  Royal Liverpool and Broadgreen University Hospitals NHS Trust	74 98	74 98	n/a n/a	79 107	1.07 0.66	73 94	16 29
helsea and Westminster Hospital NHS Foundation Trust	83	83	n/a	82	0.26	45	15	Royal Surrey County Hospital NHS Foundation Trust	109	109	n/a	94	0.76	106	15
hesterfield Royal Hospital NHS Foundation Trust	103	103	n/a	106	1.1	97	20	Royal United Hospital Bath NHS Trust	102 80	102 79	n/a	100	1.31	97	14
ity Hospitals Sunderland NHS Foundation Trust  olchester Hospital University NHS Foundation Trust	108 105	108 105	n/a _	102	0.58 0.81	125 120	10 22	Salford Royal NHS Foundation Trust Salisbury NHS Foundation Trust	114	112	n/a n/a	91	0.83	112 54	30 26
ountess of Chester Hospital NHS Foundation Trust	108	109	n/a	108	0.92	113	14	Sandwell and West Birmingham Hospitals NHS Trust	93	93	1~	98	0.57	79	22
ounty Durham and Darlington NHS Foundation Trust	107	107	1^	105	0.88	82	9	Sheffield Teaching Hospitals NHS Foundation Trust	96 120	96	l∨ n/a	88 107	0.73	70 80	19 13
roydon Health Services NHS Trust artford and Gravesham NHS Trust	98 84	98 84	n/a n/a	92 95	0.58 0.73	100 128	15 26	Sherwood Forest Hospitals NHS Foundation Trust Shrewsbury and Telford Hospital NHS Trust	96	96	11/ a _	107	0.45 0.78	150	19
erby Hospitals NHS Foundation Trust	103	103	n/a	110	0.71	97	29	South Devon Healthcare NHS Foundation Trust	99	99	n/a	96	0.83	94	14
oncaster and Bassetlaw Hospitals NHS Foundation Trust	107	107	1^	106	0.65	93	14	South London Healthcare NHS Trust	103	103	1	106	0.56	101	26
orset County Hospital NHS Foundation Trust aling Hospital NHS Trust	106 91	106 91	n/a n/a	107 84	1.28 0.4	97 86	20	South Tees Hospitals NHS Foundation Trust  South Tyneside NHS Foundation Trust	115	101	l∨ n/a	104 109	0.71 1.36	113 143	12 17
ast and North Hertfordshire NHS Trust	97	97	-	112	0.93	138	43	South Warwickshire NHS Foundation Trust	106	104	n/a	104	0.86	82	16
ast Cheshire NHS Trust	104	104	n/a	101	0.82	133	9	Southend University Hospital NHS Foundation Trust	92	92	n/a	102	0.72	91	16
ast Kent Hospitals University NHS Foundation Trust ast Lancashire Hospitals NHS Trust	105	105	n/a	96	0.94 0.65	109 112	10	Southport and Ormskirk Hospital NHS Trust St George's Healthcare NHS Trust	96 86	97 86	n/a n/a	105	0.91 1.06	68 108	17 14
ast Sussex Healthcare NHS Trust	100	100	_	108	1.42	107	12	St Helens and Knowsley Hospitals NHS Trust	102	102	n/a	105	0.55	86	17
psom and St Helier University Hospitals NHS Trust	92 83	92 83	2 ^	94 91	0.73	96 117	24 28	Stockport NHS Foundation Trust	101 96	101 95	n/a	94	0.86	66	17
rimley Park Hospital NHS Foundation Trust Sateshead Health NHS Foundation Trust	108	108	n/a n/a	103	1.17	123	16	Surrey and Sussex Healthcare NHS Trust  Tameside Hospital NHS Foundation Trust	95	95	n/a n/a	95 112	0.9 0.78	78 169	18
George Eliot Hospital NHS Trust	120	120	n/a	109	0.63	132	11	Taunton and Somerset NHS Foundation Trust	105	105	n/a	100	0.65	95	1
iloucestershire Hospitals NHS Foundation Trust	101 99	101 101	n/a	101 97	0.72 0.67	73 95	17 17	The Dudley Group NHS Foundation Trust	101 97	101 97	n/a	90	0.72	95	24
Great Western Hospitals NHS Foundation Trust Guy's and St Thomas' NHS Foundation Trust	67	67	n/a	78	0.32	74	32	The Hillingdon Hospitals NHS Foundation Trust  The Newcastle Upon Tyne Hospitals NHS Foundation Trust	97	97	n/a	92	0.45 0.51	77 116	20 15
lampshire Hospitals NHS Foundation Trust	108	109	-	103	0.58	66	17	The Princess Alexandra Hospital NHS Trust	101	101	n/a	102	0.53	120	7
larrogate and District NHS Foundation Trust	107	108	n/a	101	0.84	112 102	13 10	The Queen Elizabeth Hospital, King's Lynn, NHS Foundation Trust  The Rotherham NHS Foundation Trust	108 106	108 107	n/a n/a	102	0.38	88 93	15 25
leatherwood and Wexham Park Hospitals NHS Foundation Trust	108 99	99	2∨ n/a	105	0.57	84	28	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust		97	n/a	105	1.12	75	33
linchingbrooke Health Care NHS Trust	88	89	n/a	97	0.55	87	22	The Royal Wolverhampton NHS Trust	103	103	n/a	102	0.91	110	21
lomerton University Hospital NHS Foundation Trust  Juli and East Yorkshire Hospitals NHS Trust	100 92	100 92	n/a n/a	95	0.29	70 143	20 25	The Whittington Hospital NHS Trust United Lincolnshire Hospitals NHS Trust	109	109	n/a 2 ~	108	0.32	64 73	10
mperial College Healthcare NHS Trust	77	77	-	78	0.47	100	24	University College London Hospitals NHS Foundation Trust	75	75	n/a	71	0.49	108	25
oswich Hospital NHS Trust	89	89	n/a	101	0.53	61	29	University Hospital of North Staffordshire NHS Trust	99	99	n/a	104	0.93	193	26
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ettering General Hospital NHS Foundation Trust	104	104	n/a	102	0.73	105	15	University Hospitals Birmingham NHS Foundation Trust	111	111	n/a	106	1.38	149	17
ing's College Hospital NHS Foundation Trust	76	76	n/a	86	0.51	144	38	University Hospitals Bristol NHS Foundation Trust	87	87	1^	92	0.55	120	15
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eeds Teaching Hospitals NHS Trust	93	93	1^	94	0.71	102	11	University Hospitals of Morecambe Bay NHS Foundation Trust	99	99	-	101	0.73	82	14
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edway NHS Foundation Trust	113	113	n/a	108	0.86	114	17	West Middlesex University Hospital NHS Trust	111	111	n/a	94	0.55	100	9
id Cheshire Hospitals NHS Foundation Trust	115	115	n/a	116	0.53	83	12	West Suffolk NHS Foundation Trust	83	83	n/a	89	0.34	63	13
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lid Yorkshire Hospitals NHS Trust	97	97	-	97	0.57	106	16	Wirral University Teaching Hospital NHS Foundation Trust	105	105	n/a	108	0.85	99	20
lilton Keynes Hospital NHS Foundation Trust	103	103	n/a	106	0.82	120	20	Worcestershire Acute Hospitals NHS Trust	104	104	- n/a	103	0.84	119	13
lorfolk and Norwich University Hospitals NHS Foundation Trust  orth Bristol NHS Trust	104 93	104 93	n/a n/a	99 97	0.74	93 83	18 21	Wrightington, Wigan and Leigh NHS Foundation Trust  Wye Valley NHS Trust	102 113	102 112	n/a n/a	109 113	0.87	118 117	19 13
	112	112	2 ~	109	0.91	105	14	Yeovil District Hospital NHS Foundation Trust	91	91	n/a	95	1.16	90	18
lorth Cumbria University Hospitals NHS Trust															