



Crystal Court, Aston Cross
Birmingham, B6 5RQ

Telephone 0121 687 3400
Facsimile 0121 687 3401
E-mail: office@pi.nhs.uk
Website: www.pi.nhs.uk

Director
Professor Jason Gardosi MD FRCOG FRCSED

Direct Dial: 0121 687 3500
E-mail: jason.gardosi@pi.nhs.uk

2 December 2010

Perinatal & Infant Mortality - 2009 Unit Report:

UNIVERSITY HOSPITAL COVENTRY & WARWICKSHIRE NHS TRUST

This report provides the latest update of stillbirth, perinatal and infant mortality rates for your Trust, as well as for the West Midlands and England & Wales. The report is delayed because of the late release by ONS of the 2009 births and deaths extracts which we cross check our cases with, and the Vital Statistics national reference data, which became available only in November this year.

The report includes

- yearly rates and three-year moving averages, summarised for stillbirths and infant deaths, as well as early neonatal, neonatal and perinatal death rates for comparison with other sources;
- 'corrected' mortality rates, after exclusion of congenital anomalies and pre-viable births;
- main categories / causes of stillbirths and infant deaths for your unit and the West Midlands

Additional information relevant to your PCT's maternity population has been presented in the respective Cluster reports which have been sent out earlier this year, and are available on www.pi.nhs.uk/pnm/clusterreports

As always, specific information relating to your unit is available on request (www.pi.nhs.uk/data). In addition, we are currently completing development of a web based interactive tool, and will be able to display mortality rates and trends on-line in the New Year.

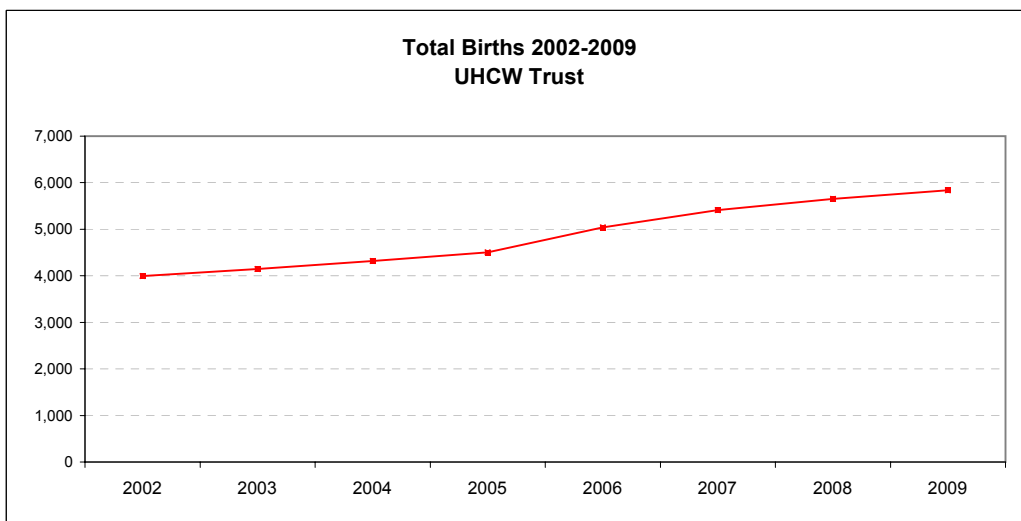
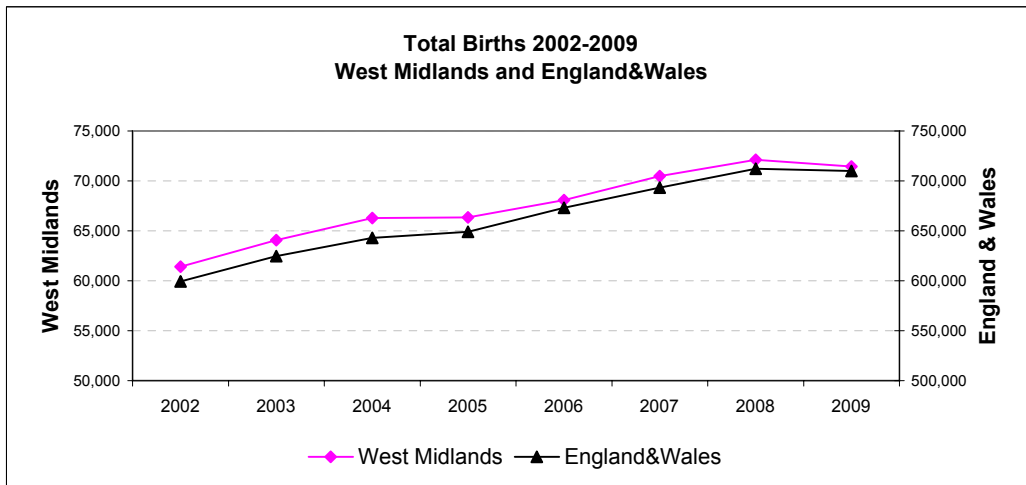
With sincere regards,

Professor Jason Gardosi
Director, Perinatal Institute

1. Births: University Hospital Coventry & Warwickshire NHS Trust, WM and E & W 2002-2009

Source: ONS

	2002	2003	2004	2005	2006	2007	2008	2009
England&Wales	599,279	624,816	643,026	649,094	672,966	693,356	712,328	709,936
West Midlands	61,417	64,079	66,285	66,351	68,063	70,476	72,110	71,455
UHCW Trust	3,996	4,147	4,317	4,503	5,040	5,414	5,649	5,837



2 A: Stillbirths 2002-2009

Numbers

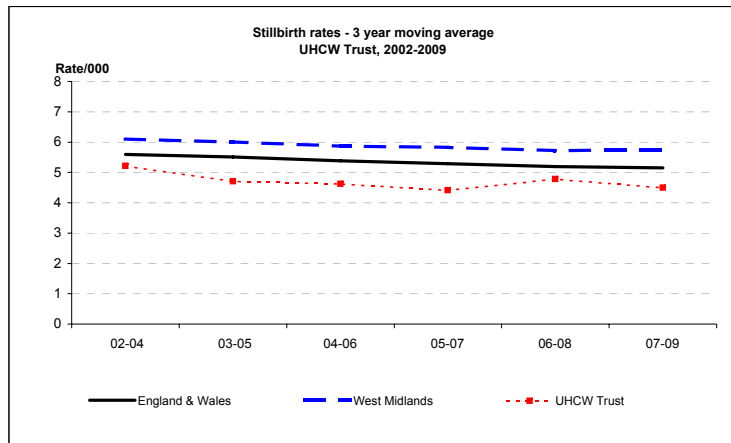
	2002	2003	2004	2005	2006	2007	2008	2009
England and Wales*	3365	3565	3517	3473	3590	3585	3617	3688
West Midlands	391	395	383	403	392	398	416	414
UHCW Trust	25	20	20	21	23	22	32	22

Rate/1,000	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales*	5.6	5.7	5.5	5.4	5.3	5.2	5.1	5.2	5.0 - 5.4
West Midlands	6.4	6.2	5.8	6.1	5.8	5.6	5.8	5.8	5.3 - 6.4
UHCW Trust	6.3	4.8	4.6	4.7	4.6	4.1	5.7	3.8	2.5 - 5.7

Still birth rates - 3 year moving averages - PDN

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales	5.6	5.5	5.4	5.3	5.2	5.1
West Midlands	6.1	6.0	5.9	5.8	5.7	5.7
UHCW Trust	5.2	4.7	4.6	4.4	4.8	4.5

*ONS



2 B: Stillbirths 2002-2009 - CORRECTED

(Excluding major congenital anomalies)

Numbers

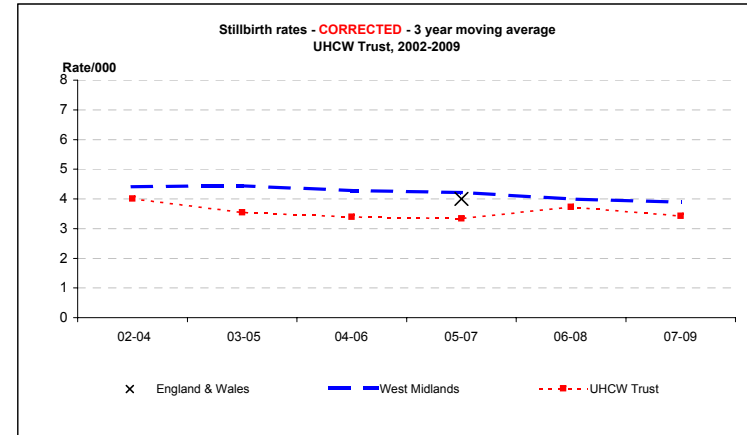
	2002	2003	2004	2005	2006	2007	2008	2009
West Midlands	282	284	279	311	268	284	290	259
UHCW Trust	20	15	15	16	16	18	26	14

Rate/1,000	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales**	4.1	4.1	4.1	4.1	4.1	3.9	4.0	3.6	3.2 - 4.1
West Midlands	4.6	4.4	4.2	4.7	3.9	4.0	4.0	3.6	3.2 - 4.1
UHCW Trust	5.0	3.6	3.5	3.6	3.2	3.3	4.6	2.4	1.4 - 4.0

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales	4.1	4.1	4.1	4.0	4.0	3.9
West Midlands	4.4	4.4	4.3	4.2	4.0	3.9
UHCW Trust	4.0	3.5	3.4	3.3	3.7	3.4

**CEMACH



x = England & Wales 3 y adjusted average from CEMACH

3. Stillbirths, 2002 -2009: Classification in main categories

Categories based on ReCoDe classification

	2002	2003	2004	2005	2006	2007	2008	2009
Births	3996	4147	4317	4503	5040	5414	5649	5837

MAIN CATEGORIES

Numbers

Congenital anomaly	4	3	4	2	6	2	4	6
Fetal growth restriction	13	4	6	11	10	7	14	6
Placenta/Umbilical cord	1	5	1	3	1	6	4	1
Maternal conditions	1	1	0	1	0	0	0	1
Infection	0	1	1	0	0	0	0	1
Intrapartum asphyxia	0	2	0	0	0	1	0	0
Miscellaneous	0	0	1	2	1	1	3	1
Unclassified / Unexplained	6	4	7	2	5	5	7	6

3-year moving averages

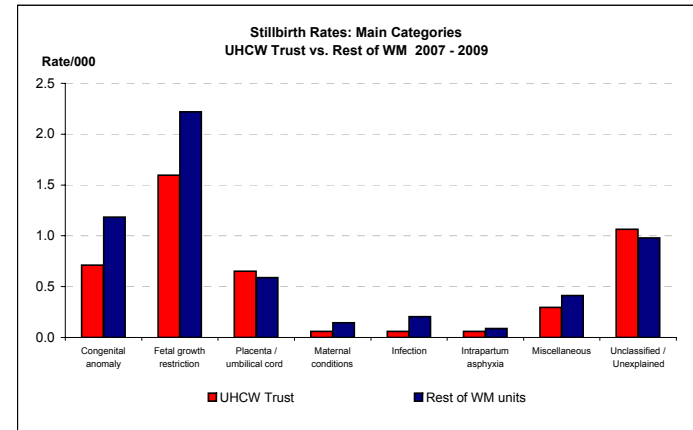
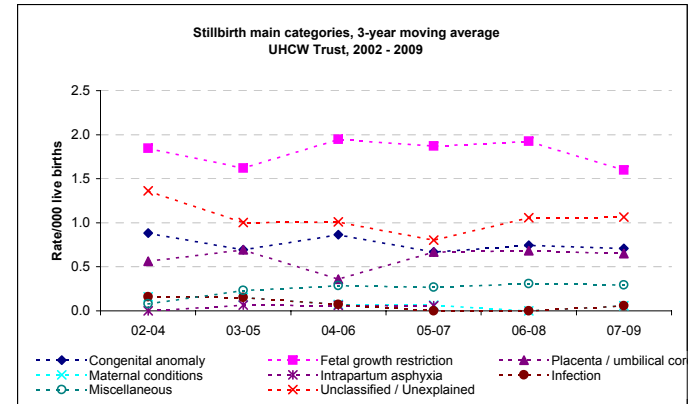
	02-04	03-05	04-06	05-07	06-08	07-09
Congenital anomaly	0.9	0.7	0.9	0.7	0.7	0.7
Fetal growth restriction	1.8	1.6	1.9	1.9	1.9	1.6
Placenta / umbilical cord	0.6	0.7	0.4	0.7	0.7	0.7
Maternal conditions	0.2	0.2	0.1	0.1	0.0	0.1
Infection	0.2	0.2	0.1	0.0	0.0	0.1
Intrapartum asphyxia	0.2	0.2	0.0	0.1	0.1	0.1
Miscellaneous	0.1	0.2	0.3	0.3	0.3	0.3
Unclassified / Unexplained	1.4	1.0	1.0	0.8	1.1	1.1

Births 2007-9

MAIN CATEGORIES - 2007-9

Congenital anomaly	12	0.7
Fetal growth restriction	27	1.6
Placenta / umbilical cord	11	0.7
Maternal conditions	1	0.1
Infection	1	0.1
Intrapartum asphyxia	1	0.1
Miscellaneous	5	0.3
Unclassified / Unexplained	18	1.1

UHCW Trust 16,900		Rest of WM units 200,907	
No.	Rate	No.	Rate
12	0.7	238	1.2
27	1.6	446	2.2
11	0.7	118	0.6
1	0.1	29	0.1
1	0.1	41	0.2
1	0.1	18	0.1
5	0.3	83	0.4
18	1.1	197	1.0



4 A: Infant Deaths 2002-2009

Numbers

	2002	2003	2004	2005	2006	2007	2008	2009
England and Wales*	3144	3274	3234	3217	3329	3309	3369	3312
West Midlands	407	476	419	423	407	422	458	455
UHCW Trust	37	32	43	19	19	27	39	32

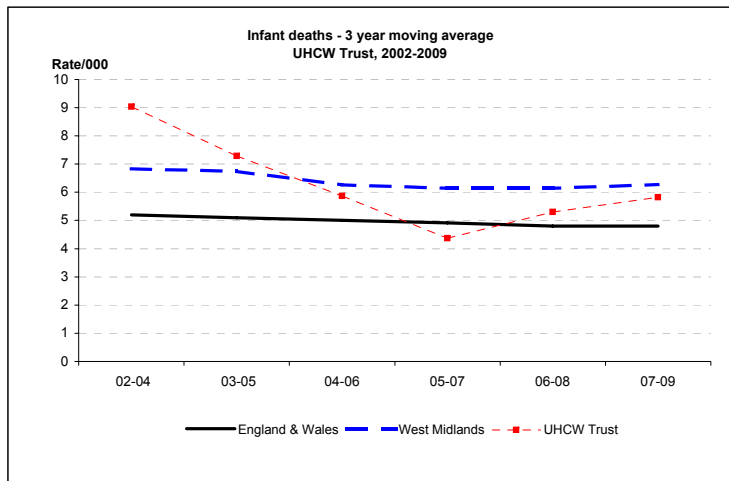
Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales*	5.3	5.3	5.1	5.0	5.0	4.8	4.8	4.7	4.5 - 4.9
West Midlands	6.7	7.5	6.4	6.4	6.0	6.0	6.4	6.4	5.8 - 7.0
UHCW Trust	9.3	7.8	10.0	4.2	3.8	5.0	6.9	5.5	3.9 - 7.8

Infant death rates - 3 year moving average - PDN

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales	5.2	5.1	5.0	4.9	4.8	4.8
West Midlands	6.8	6.7	6.3	6.1	6.1	6.3
UHCW Trust	9.0	7.3	5.9	4.4	5.3	5.8

*ONS



4 B: Infant deaths 2002-2009 - CORRECTED

Corrected = excluding major congenital anomalies, <22 weeks gestation and <500g birthweight

Numbers

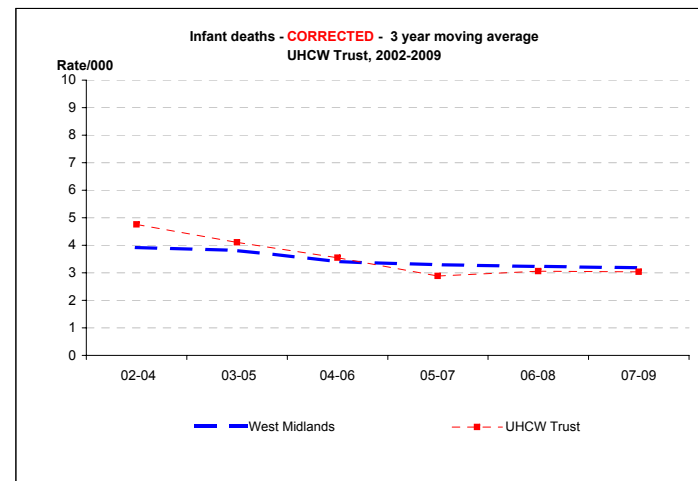
	2002	2003	2004	2005	2006	2007	2008	2009
West Midlands	238	274	236	235	208	228	240	211
UHCW Trust	19	19	21	13	15	15	19	17

Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
West Midlands	3.9	4.3	3.6	3.6	3.1	3.3	3.3	3.0	2.6 - 3.4
UHCW Trust	4.8	4.6	4.9	2.9	3.0	2.8	3.4	2.9	1.8 - 4.7

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
West Midlands	3.9	3.8	3.4	3.3	3.2	3.2
UHCW Trust	4.8	4.1	3.6	2.9	3.1	3.0



5. Infant Deaths, 2002-2009: main categories

Categories based on Fetal/Neonatal/Infant classification

	2002	2003	2004	2005	2006	2007	2008	2009
Live Births	3971	4127	4297	4482	5017	5392	5617	5815

MAIN CATEGORIES

Numbers

Congenital anomaly	8	3	12	5	4	9	12	4
Previae	9	9	8	1	0	1	6	4
Pulmonary immaturity	14	14	22	5	9	6	17	14
Intrapartum asphyxia	0	0	0	0	2	1	3	2
Infection	5	6	2	3	2	2	2	4
SUDI	2	0	1	2	1	3	4	1
Miscellaneous	7	8	4	4	1	1	0	3
Unclassified	1	1	2	0	0	5	1	4

3-year moving averages

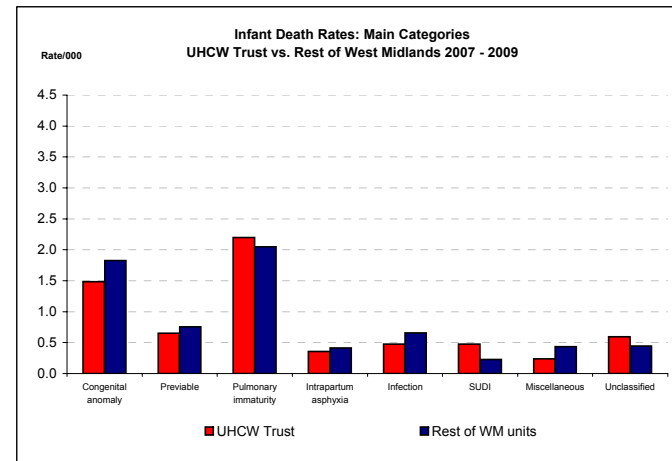
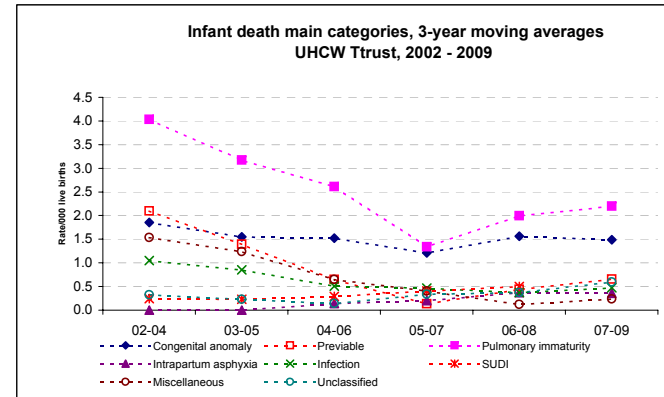
	02-04	03-05	04-06	05-07	06-08	07-09
Congenital anomaly	1.9	1.5	1.5	1.2	1.6	1.5
Previae	2.1	1.4	0.7	0.1	0.4	0.7
Pulmonary immaturity	4.0	3.2	2.6	1.3	2.0	2.2
Intrapartum asphyxia	0.0	0.0	0.1	0.2	0.4	0.4
Infection	1.0	0.9	0.5	0.5	0.4	0.5
SUDI	0.2	0.2	0.3	0.4	0.5	0.5
Miscellaneous	1.5	1.2	0.7	0.4	0.1	0.2
Unclassified	0.3	0.2	0.1	0.3	0.4	0.6

Live Births 2007-9

UHCW Trust	Rest of WM units
16,824	199,779

MAIN CATEGORIES - 2007-9

	No.	Rate	No.	Rate
Congenital anomaly	25	1.5	365	1.8
Previae	11	0.7	151	0.8
Pulmonary immaturity	37	2.2	409	2.0
Intrapartum asphyxia	6	0.4	83	0.4
Infection	8	0.5	131	0.7
SUDI	8	0.5	45	0.2
Miscellaneous	4	0.2	87	0.4
Unclassified	10	0.6	89	0.4



6 A: Early Neonatal deaths 2002-2009

Early neonatal = birth to age 7 days

Numbers

	2002	2003	2004	2005	2006	2007	2008	2009
England and Wales*	1628	1726	1714	1681	1750	1762	1763	1715
West Midlands	234	266	255	270	245	268	258	246
UHCW Trust	26	20	23	12	11	11	21	20

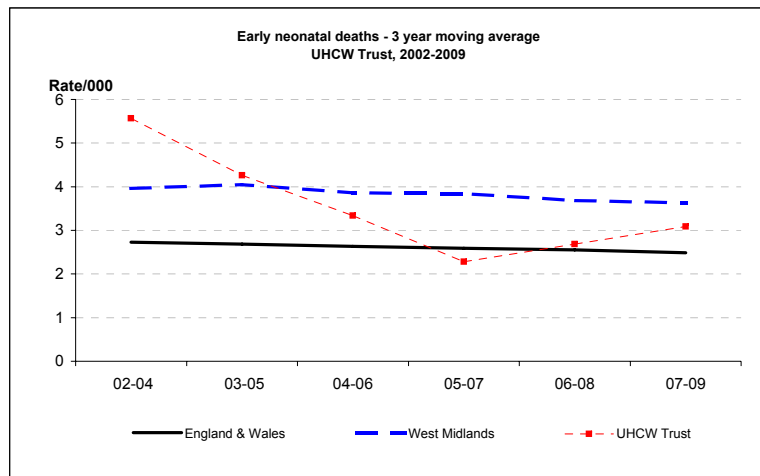
Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales*	2.7	2.8	2.7	2.6	2.6	2.6	2.5	2.4	2.3 - 2.5
West Midlands	3.8	4.2	3.9	4.1	3.6	3.8	3.6	3.5	3.1 - 3.9
UHCW Trust	6.5	4.8	5.4	2.7	2.2	2.0	3.7	3.4	2.2 - 5.3

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales	2.7	2.7	2.6	2.6	2.6	2.5
West Midlands	4.0	4.0	3.9	3.8	3.7	3.6
UHCW Trust	5.6	4.3	3.3	2.3	2.7	3.1

*ONS



6 B: Early Neonatal Deaths 2002-2009 - CORRECTED

Corrected = excluding major congenital anomalies, <22 weeks gestation and <500g birthweight

Numbers

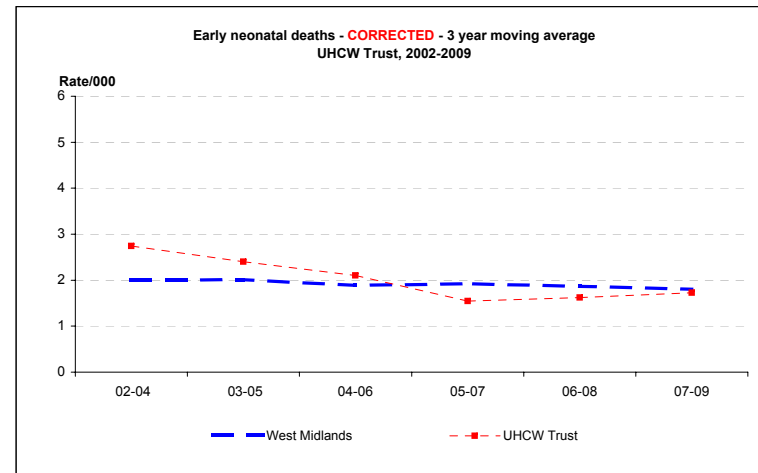
	2002	2003	2004	2005	2006	2007	2008	2009
West Midlands	118	134	129	131	117	144	130	110
UHCW Trust	11	11	12	8	9	6	11	12

Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
West Midlands	1.9	2.1	2.0	2.0	1.7	2.1	1.8	1.5	1.3 - 1.9
UHCW Trust	2.8	2.7	2.8	1.8	1.8	1.1	2.0	2.1	1.2 - 3.6

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
West Midlands	2.0	2.0	1.9	1.9	1.9	1.8
UHCW Trust	2.7	2.4	2.1	1.5	1.6	1.7



7 A: Neonatal deaths 2002-2009

Neonatal = birth to age 28 days

Numbers

	2002	2003	2004	2005	2006	2007	2008	2009
England and Wales*	2129	2234	2223	2205	2331	2269	2299	2251
West Midlands	294	329	314	327	316	316	321	321
UHCW Trust	29	23	33	16	17	18	25	23

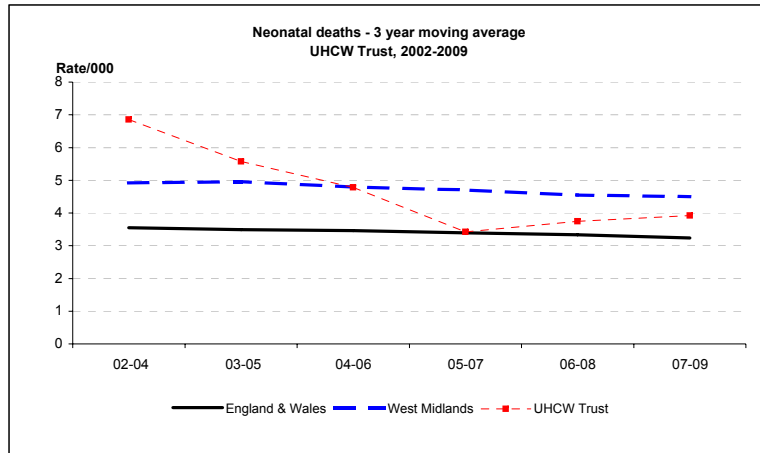
Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales*	3.6	3.6	3.5	3.4	3.5	3.3	3.2	3.2	3.1 - 3.3
West Midlands	4.8	5.2	4.8	5.0	4.7	4.5	4.5	4.5	4.1 - 5.0
UHCW Trust	7.3	5.6	7.7	3.6	3.4	3.3	4.5	4.0	2.6 - 5.9

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales	3.5	3.5	3.5	3.4	3.3	3.2
West Midlands	4.9	5.0	4.8	4.7	4.6	4.5
UHCW Trust	6.9	5.6	4.8	3.4	3.7	3.9

*ONS



7 B: Neonatal Deaths 2002-2009 - CORRECTED

Corrected = excluding major congenital anomalies, <22 weeks gestation and <500g birthweight

Numbers

	2002	2003	2004	2005	2006	2007	2008	2009
West Midlands	157	176	166	172	168	172	168	149
UHCW Trust	12	14	17	11	14	10	11	14

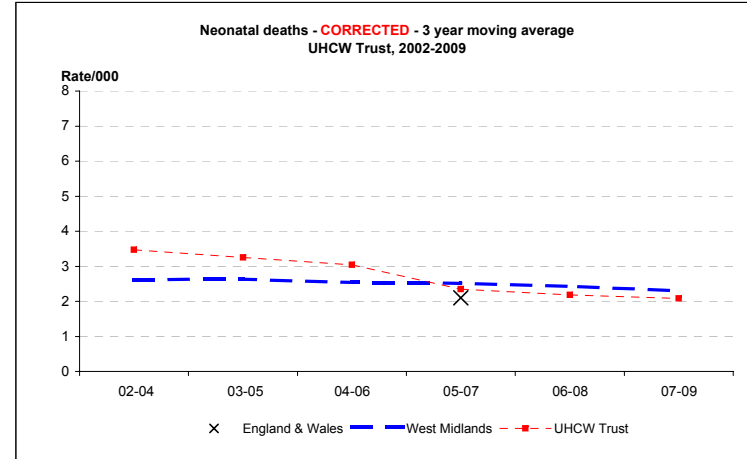
Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales**				2.1	2.3	2.0			
West Midlands	2.6	2.8	2.5	2.6	2.5	2.5	2.3	2.1	1.8 - 2.5
UHCW Trust	3.0	3.4	4.0	2.5	2.8	1.9	2.0	2.4	1.4 - 4.0

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales**				2.1		
West Midlands	2.6	2.6	2.5	2.5	2.4	2.3
UHCW Trust	3.5	3.3	3.0	2.4	2.2	2.1

**CEMACH



x = England & Wales 3 y adjusted average from CEMACH

8 A: Perinatal Deaths 2002-2009

Perinatal = stillbirths and early neonatal deaths

Numbers

	2002	2003	2004	2005	2006	2007	2008	2009
England and Wales*	4993	5291	5231	5154	5340	5347	5380	5403
West Midlands	625	661	638	673	637	666	674	656
UHCW Trust	51	40	43	33	34	33	53	42

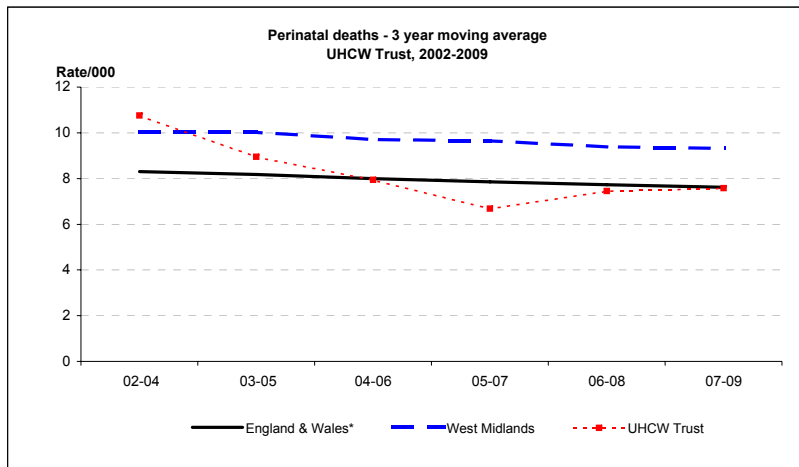
Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales*	8.3	8.5	8.1	7.9	7.9	7.7	7.6	7.6	7.4 - 7.8
West Midlands	10.2	10.3	9.6	10.1	9.4	9.5	9.3	9.2	8.5 - 9.9
UHCW Trust	12.8	9.6	10.0	7.3	6.7	6.1	9.4	7.2	5.3 - 9.7

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales*	8.3	8.2	8.0	7.9	7.7	7.6
West Midlands	10.0	10.0	9.7	9.6	9.4	9.3
UHCW Trust	10.8	8.9	7.9	6.7	7.5	7.6

*ONS



8 B: Perinatal Deaths 2002-2009 - CORRECTED

Corrected = excluding major congenital anomalies, <22 weeks gestation and <500g birthweight

Numbers

	2002	2003	2004	2005	2006	2007	2008	2009
West Midlands	400	418	408	442	385	428	420	369
UHCW Trust	31	26	27	24	25	24	37	26

Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
West Midlands	6.5	6.5	6.2	6.7	5.7	6.1	5.8	5.2	4.7 - 5.7
UHCW Trust	7.8	6.3	6.3	5.3	5.0	4.4	6.5	4.5	3.0 - 6.5

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
West Midlands	6.4	6.4	6.2	6.1	5.9	5.7
UHCW Trust	6.7	5.9	5.5	4.9	5.3	5.1

