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2 December 2010

**Perinatal & Infant Mortality - 2009 Unit Report:
DUDLEY GROUP OF HOSPITALS NHS FOUNDATION 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.

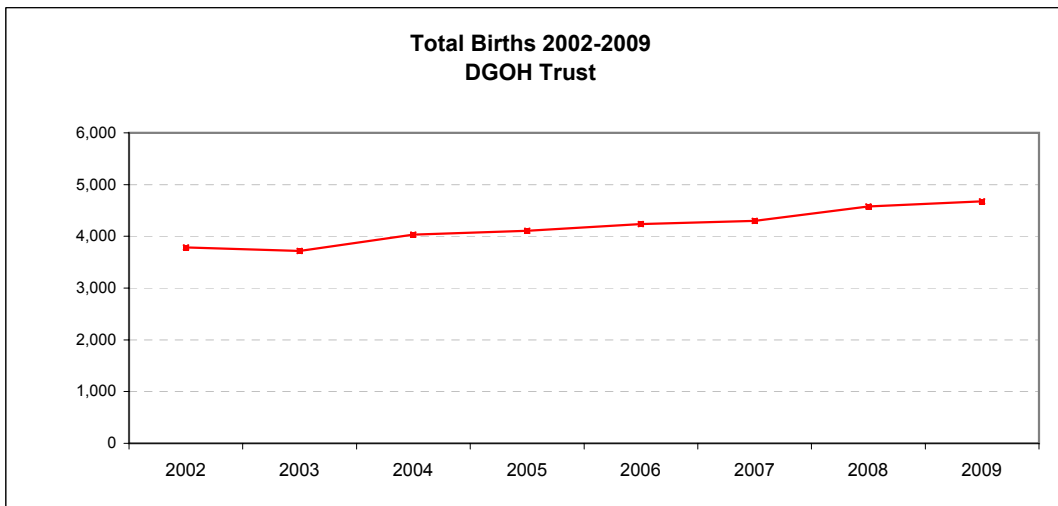
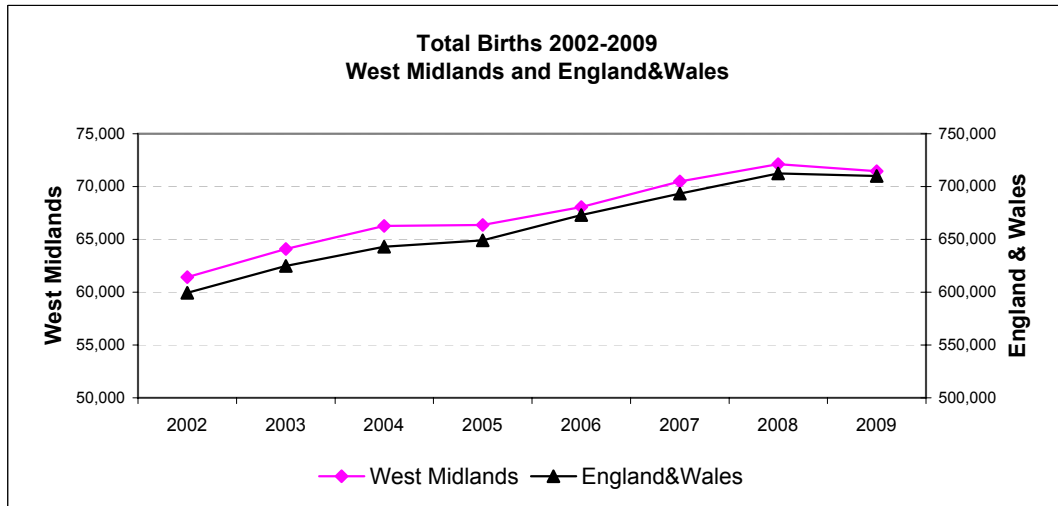
With sincere regards,

Professor Jason Gardosi
Director, Perinatal Institute

1. Births: Dudley Group of Hospitals NHS Foundation 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
DGOH Trust	3,787	3,719	4,030	4,105	4,237	4,299	4,577	4,678



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
DGOH Trust	29	22	22	29	29	18	30	22

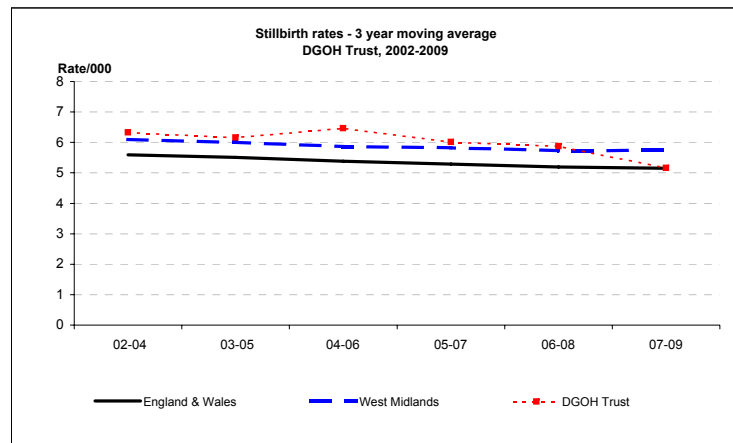
Rate/1,000

	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
DGOH Trust	7.7	5.9	5.5	7.1	6.8	4.2	6.6	4.7	3.1 - 7.1

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
DGOH Trust	6.3	6.2	6.5	6.0	5.9	5.2

*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
DGOH Trust	20	15	18	27	20	11	21	18

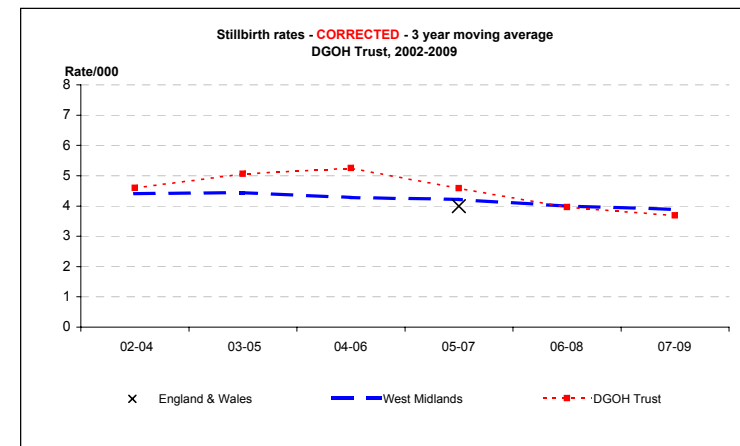
Rate/1,000

	2002	2003	2004	2005	2006	2007	2008	2009	2009 CI
England and Wales**				4.1	4.1	3.9			
West Midlands	4.6	4.4	4.2	4.7	3.9	4.0	4.0	3.6	3.2 - 4.1
DGOH Trust	5.3	4.0	4.5	6.6	4.7	2.6	4.6	3.8	2.4 - 6.1

3 year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
England & Wales				4.0		
West Midlands	4.4	4.4	4.3	4.2	4.0	3.9
DGOH Trust	4.6	5.1	5.3	4.6	4.0	3.7

**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	3787	3719	4030	4105	4237	4299	4577	4678

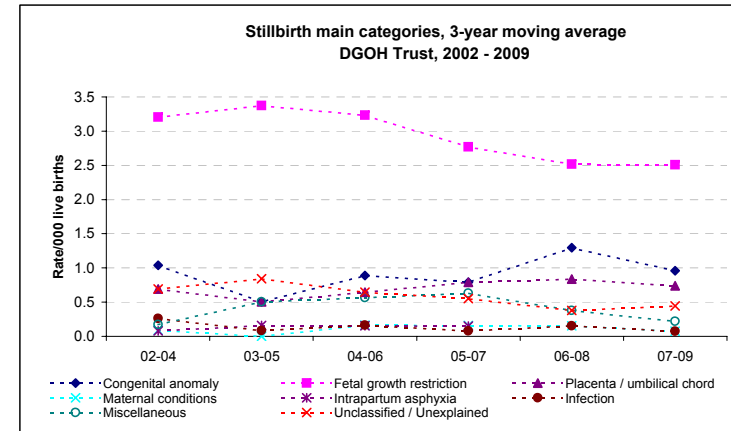
MAIN CATEGORIES

Numbers

Congenital anomaly	6	2	4	0	7	3	7	3
Fetal growth restriction	13	10	14	16	10	9	14	11
Placenta/Umbilical chord	5	3	0	3	5	2	4	4
Maternal conditions	1	0	0	0	2	0	0	1
Infection	2	0	1	0	1	0	1	0
Intrapartum asphyxia	0	2	0	1	0	1	1	0
Miscellaneous	0	1	1	4	2	2	1	0
Unclassified / Unexplained	2	4	2	4	2	1	2	3

3-year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
Congenital anomaly	1.0	0.5	0.9	0.8	1.3	1.0
Fetal growth restriction	3.2	3.4	3.2	2.8	2.5	2.5
Placenta / umbilical chord	0.7	0.5	0.6	0.8	0.8	0.7
Maternal conditions	0.1	0.0	0.2	0.2	0.2	0.1
Infection	0.3	0.1	0.2	0.1	0.2	0.1
Intrapartum asphyxia	0.2	0.3	0.1	0.2	0.2	0.1
Miscellaneous	0.2	0.5	0.6	0.6	0.4	0.2
Unclassified / Unexplained	0.7	0.8	0.6	0.6	0.4	0.4



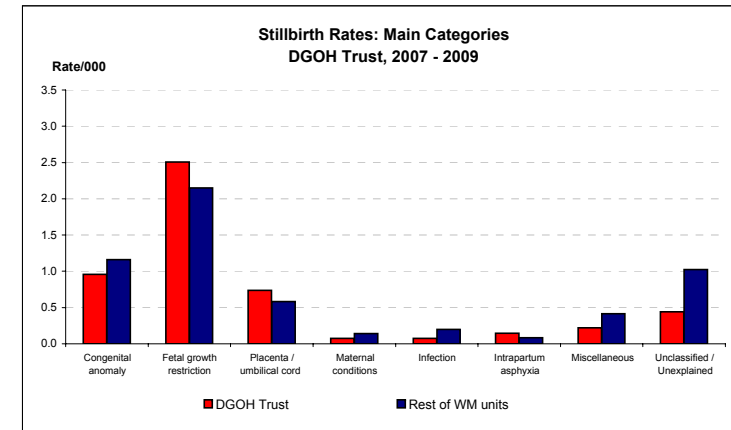
Births 2007-9

DGOH Trust
13,554

Rest of WM units
204,253

MAIN CATEGORIES - 2007-9

	No.	Rate	No.	Rate
Congenital anomaly	13	1.0	237	1.2
Fetal growth restriction	34	2.5	439	2.1
Placenta / umbilical cord	10	0.7	119	0.6
Maternal conditions	1	0.1	29	0.1
Infection	1	0.1	41	0.2
Intrapartum asphyxia	2	0.1	17	0.1
Miscellaneous	3	0.2	85	0.4
Unclassified / Unexplained	6	0.4	209	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
DGOH Trust	12	14	12	25	25	17	19	13

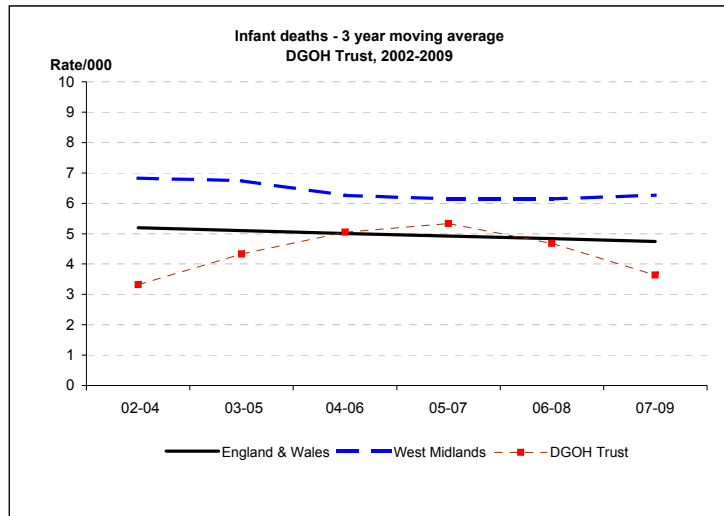
Rate/1,000

	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
DGOH Trust	3.2	3.8	3.0	6.1	5.9	4.0	4.2	2.8	1.6 - 4.8

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	4.7
West Midlands	6.8	6.7	6.3	6.1	6.1	6.3
DGOH Trust	3.3	4.3	5.0	5.3	4.7	3.6

*ONS



4 B: Infant deaths 2002-2009 - CORRECTED

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

Numbers

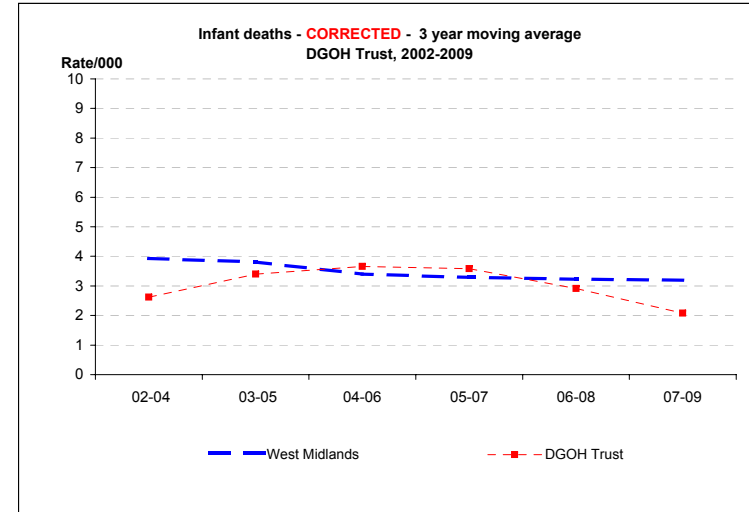
	2002	2003	2004	2005	2006	2007	2008	2009
West Midlands	238	274	236	235	208	228	240	211
DGOH Trust	10	10	10	20	15	10	13	5

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
DGOH Trust	2.7	2.7	2.5	4.9	3.6	2.3	2.9	1.1	0.5 - 2.5

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
DGOH Trust	2.6	3.4	3.7	3.6	2.9	2.1



5. Infant Deaths in DGOH Trust, 2002-2009: main categories

Categories based on Fetal/Neonatal/Infant classification

	2002	2003	2004	2005	2006	2007	2008	2009
Live Births	3758	3697	4008	4076	4208	4281	4547	4656

MAIN CATEGORIES

Numbers

Congenital anomaly	2	4	2	4	7	4	6	6
Previabile	0	0	0	1	2	2	0	0
Pulmonary immaturity	3	6	4	7	9	5	5	2
Intrapartum asphyxia	0	0	1	0	1	1	2	2
Infection	3	1	1	1	5	1	2	0
SUDI	1	1	2	7	1	2	1	1
Miscellaneous	2	2	2	6	1	4	2	0
Unclassified	1	0	0	0	0	0	1	2

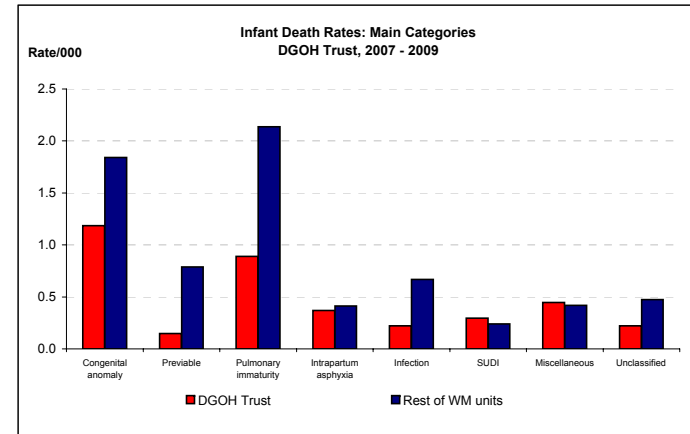
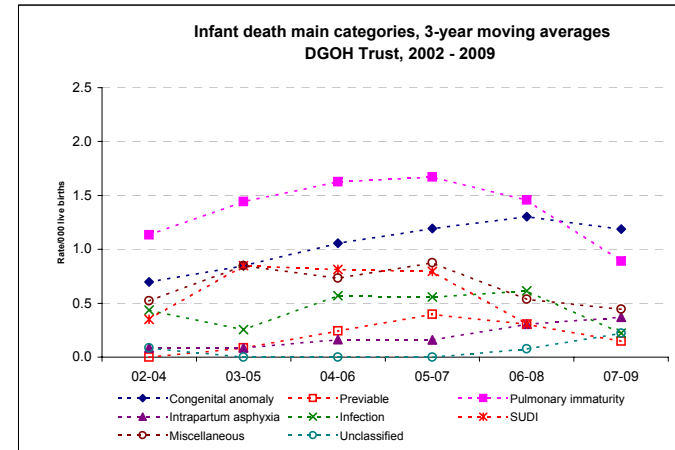
3-year moving averages

	02-04	03-05	04-06	05-07	06-08	07-09
Congenital anomaly	0.7	0.8	1.1	1.2	1.3	1.2
Previabile	0.0	0.1	0.2	0.4	0.3	0.1
Pulmonary immaturity	1.1	1.4	1.6	1.7	1.5	0.9
Intrapartum asphyxia	0.1	0.1	0.2	0.2	0.3	0.4
Infection	0.4	0.3	0.6	0.6	0.6	0.2
SUDI	0.3	0.8	0.8	0.8	0.3	0.3
Miscellaneous	0.5	0.8	0.7	0.9	0.5	0.4
Unclassified	0.1	0.0	0.0	0.0	0.1	0.2

	DGOH Trust		Rest of WM units	
	No.	Rate	No.	Rate
Live Births 2007-9	13,484		203,119	

MAIN CATEGORIES - 2007-9

	DGOH Trust		Rest of WM units	
	No.	Rate	No.	Rate
Congenital anomaly	16	1.2	374	1.8
Previabile	2	0.1	160	0.8
Pulmonary immaturity	12	0.9	434	2.1
Intrapartum asphyxia	5	0.4	84	0.4
Infection	3	0.2	136	0.7
SUDI	4	0.3	49	0.2
Miscellaneous	6	0.4	85	0.4
Unclassified	3	0.2	96	0.5



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
DGOH Trust	6	5	6	12	14	12	9	4

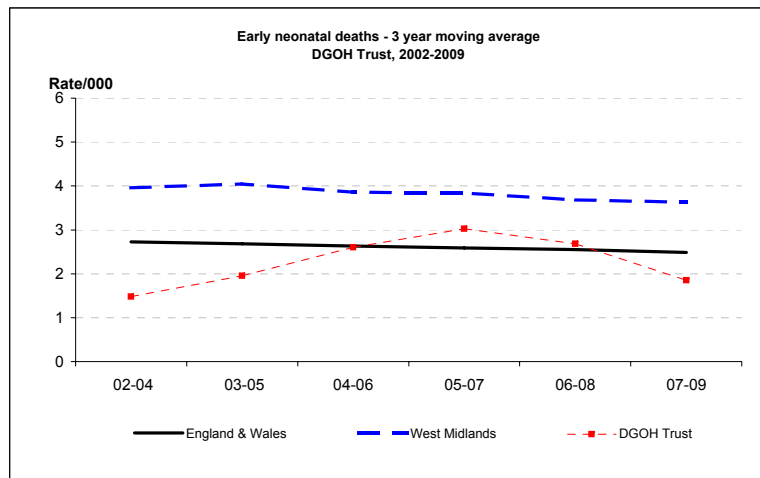
Rate/1,000

	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
DGOH Trust	1.6	1.4	1.5	2.9	3.3	2.8	2.0	0.9	0.3 - 2.2

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
DGOH Trust	1.5	2.0	2.6	3.0	2.7	1.9

*ONS



6 B: Early Neonatal Deaths 2002-2009 - CORRECTED

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

Numbers

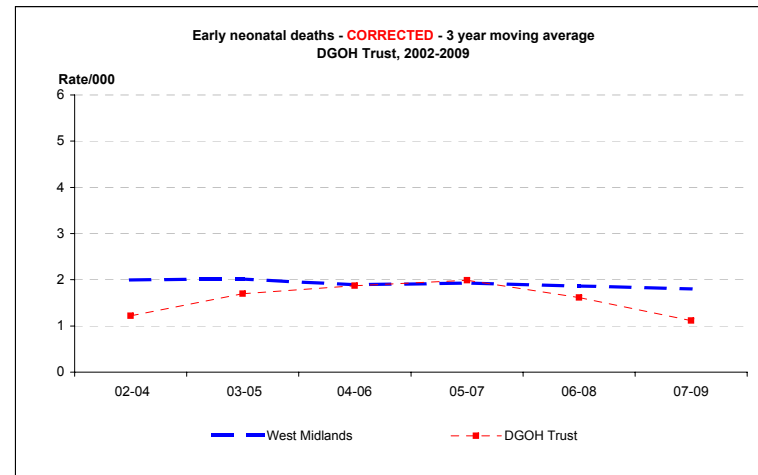
	2002	2003	2004	2005	2006	2007	2008	2009
West Midlands	118	134	129	131	117	144	130	110
DGOH Trust	4	5	5	10	8	7	6	2

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
DGOH Trust	1.1	1.4	1.2	2.5	1.9	1.6	1.3	0.4	0.1 - 1.6

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
DGOH Trust	1.2	1.7	1.9	2.0	1.6	1.1



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
DGOH Trust	9	8	7	15	20	13	14	8

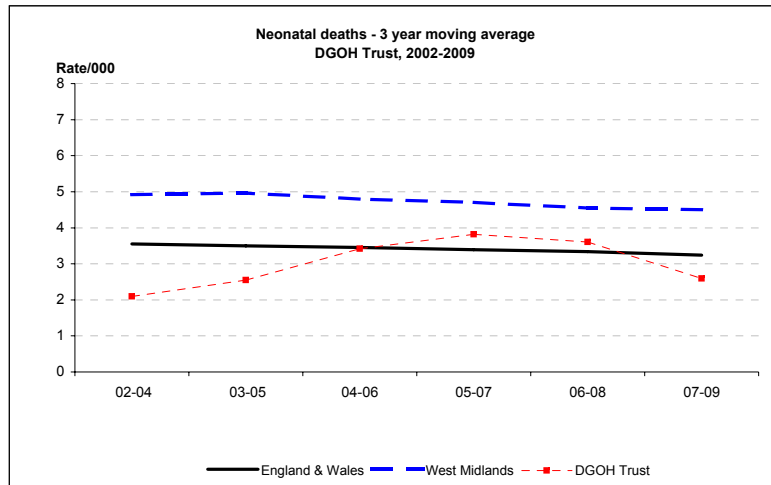
Rate/1,000

	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
DGOH Trust	2.4	2.2	1.7	3.7	4.8	3.0	3.1	1.7	0.9 - 3.4

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
DGOH Trust	2.1	2.5	3.4	3.8	3.6	2.6

*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
DGOH Trust	7	6	6	12	13	7	9	4

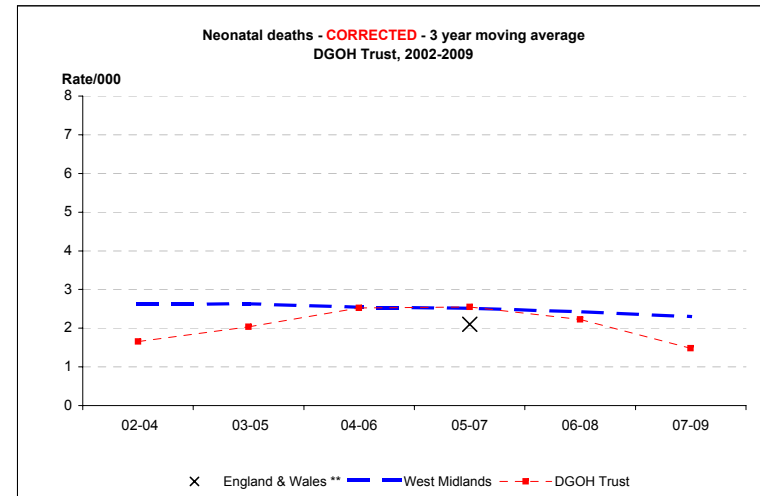
Rate/1,000

	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
DGOH Trust	1.9	1.6	1.5	2.9	3.1	1.6	2.0	0.9	0.3 - 2.2

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
DGOH Trust	1.7	2.0	2.5	2.5	2.2	1.5

**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
DGOH Trust	35	27	28	40	42	30	39	26

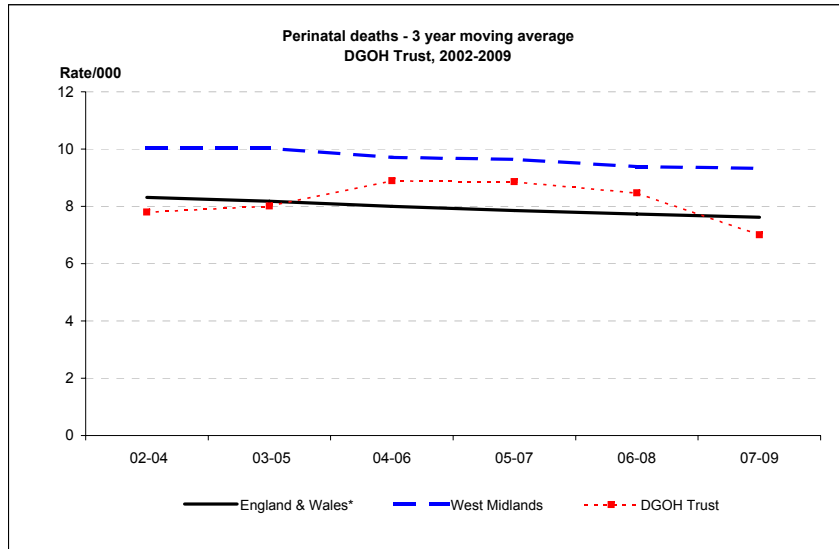
Rate/1,000

	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
DGOH Trust	9.2	7.3	6.9	9.7	9.9	7.0	8.5	5.6	3.8 - 8.1

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
DGOH Trust	7.8	8.0	8.9	8.9	8.5	7.0

*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
DGOH Trust	24	20	23	37	28	18	27	20

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
DGOH Trust	6.3	5.4	5.7	9.0	6.6	4.2	5.9	4.3	2.8 - 6.6

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
DGOH Trust	5.8	6.7	7.1	6.6	5.6	4.8

