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29 March 2010

To: Birmingham PCTs
Birmingham Maternity Units
Birmingham Local Authority
NHS West Midlands

Dear Colleague,

This is the **third interim report of the IfH data collection programme**. We present results from Q3 as well as a totals for the first 3 quarters. KPI3, the indicator concerning detection of IUGR, is also included.

The results are presented for each PCT and their respective provider units.

For **Birmingham**, the key points are

- Improved ascertainment of cases;
- however record keeping often substandard, with frequent omissions of essential information;
- good progress towards early booking target;
- FGR detection rates are low but vary between units, suggesting room for improvement; the CoGS project will hopefully help to improve this situation, but needs across the board support;
- national smoking-in-pregnancy targets are met because of the high proportion of South Asian mothers. Rates are higher for British-Europeans and teenagers, and cessation rates are low.

Also included are a preliminary set of indicators of the WM dataset, with demographics and characteristics of pregnancies for Birmingham. A detailed analysis will follow in the 12 month report, due June 2010.

With sincere regards

Professor Jason O. Gardosi
Director, Perinatal Institute

West Midlands Investing for Health - Perinatal Data Collection Project Q3 Report (October – December 2009)

This is the third quarterly report on the regional perinatal data collection established under the WM Investing for Health Perinatal & Infant Mortality Programme (2c). In this interim report we present also totals for the first 3 quarters.

- 1. Data quality:** Over the last few months, a team from the Perinatal Institute have been undertaking a case note audit in each unit to assess the accuracy of the process and validity of the data entered on the Institute's Perinatal Episode Electronic Record (PEER) . **The audit has demonstrated good overall accuracy.** Individual detailed reports are being sent to each maternity unit during April 2010.
- 2.** However the same audit has shown **deficiencies in the quality of record keeping** in the maternity record. This can affect each of the indicators presented in this report. The importance of accurate recording is also being highlighted in each of the Confidential Enquiries into perinatal deaths we are currently reporting on. The SHA's IfH programme has commissioned PI to develop a quality assurance toolkit for maternity records.
- 3.** Submission rates have improved significantly, but ascertainment is still only around 70% for the region. There are still staffing issues in relation to data clerks which we feed back on regularly, together with a fortnightly activity report on whether the submission targets are being achieved. **It is essential that data clerks are fully supported locally and their posts maintained through contract negotiations.**
- 4.** The information collected is allowing us to develop a baseline for KPIs as well as demographics, characteristics of pregnancies and factors affecting outcome. At the end of this report, we are providing preliminary rates for the main data items being collected through the WM maternity dataset. **PEER has rapidly established itself as the largest uniform maternity data collection system in England,** and will be an important source of information about the quality of care, equity and causes of adverse outcome.
- 5.** Since early this year, we have been running a series of workshops for representatives from PCTs and maternity units, and provided them with 'data wizards' which **facilitate direct access to their respective organisations' data collected on PEER.**
- 6.** In the coming weeks, we are commencing **pilots for Digital Pens,** which will allow real time data collection and reporting. This will be particularly important for data items such as Early Booking rates, which we can currently only provide after delivery, i.e. 6 or more months in arrears. It will also provide snapshots of current caseloads and levels of maternal medical and social risk, to facilitate effective workforce planning.

The next report will be in June 2010 and will include 12 months of data together with a comprehensive subgroup analysis. In the meantime, the PI team will continue to respond to individual queries as best possible (for details on submitting data requests, see www.pi.nhs.uk/data)

PEER Team
Perinatal Institute

March 2010



Table 1: Data submitted from Birmingham Units

Unit	WTE funded	WTE employed (Feb 2010)	Recruitment details	Q1			Q2			Q3			Comments
				Est. Births Q1	Submissions		Est. Births Q2	Submissions		Est. Births Q3	Submissions		
					(n)	(%)		(n)	(%)		(n)	(%) *	
West Midlands	23.7	23.2		17973	7385	41%	18154	12769	70%	18229	12985	71%	
Birmingham (3 PCTs)	6.6	5.8		4846	2404	50%	4917	3819	78%	4907	3797	77%	

Birmingham Womens	2.5	2.5	2.5WTE now in post; commenced July, August & October 2009	1799	641	36%	1870	1784	95%	1860	1842	99%	Data clerks now working on Q1 backlog, excellent progress
City	1.2	0	1.0WTE left in October. 1.2WTE to be advertised	901	674	75%	901	679	75%	901	532	59%	3 temporary clerks recently trained and working on bank, no permanent clerk in
Good Hope	1.2	1.6	0.6WTE commenced April but left. Further 0.6WTE commenced Sept. 1.0WTE commenced Nov 2009	904	219	24%	904	212	23%	904	598	66%	Large backlog due to understaffing, but good progress now being made
Heartlands	1.7	1.7	BHH & Solihull- 1.5WTE commenced July. 1.0WTE commenced Sept 09	1242	870	70%	1242	1144	92%	1242	825	66%	No permanent base for data clerks, IT problems, difficulty accessing Q3 notes that have gone off site

Interim (Q1) submission target

<60%	60-79%	≥80%
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***Project submission target**

<80%	80-89%	≥90%
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Submission rates are calculated as the number of cases submitted from each quarter, as a proportion of all births in that quarter (estimated on the basis of last available data from 2008). Data received is dependant upon the completeness of notes recorded by care providers, and sustained capacity of data clerks ensured by Units and respective PCTs. The PI are about to commence pilots of Digital Pens for community midwives to facilitate ascertainment of real-time data.

KPI 1a: Completed health & social assessment before 13 weeks

Target: 80%

< 60%	60-79%	≥ 80%
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www.pi.nhs.uk/rpnm/lfh/KPI_Evidence_Targets.pdf

	KPI 1a - Completed Assessment < 13 Weeks											
	Q1			Q2			Q3			Total / average over period Q1-Q3		
	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%
West Midlands	6774	5052	74.6%	10875	8545	78.6%	11697	9592	82.0%	29346	23189	79.0%
Birmingham (3 PCTs)	1941	1482	76.4%	2934	2287	77.9%	3158	2538	80.4%	8033	6307	78.5%
PCTs												
Birmingham East and North	780	603	77.3%	930	707	76.0%	1027	839	81.7%	2737	2149	78.5%
Heart of B'ham Teaching	753	541	71.8%	963	724	75.2%	1040	757	72.8%	2756	2022	73.4%
South Birmingham	408	338	82.8%	1041	856	82.2%	1091	942	86.3%	2540	2136	84.1%
Units												
B'ham Women's Hospital	633	554	87.5%	1701	1445	85.0%	1785	1557	87.2%	4119	3556	86.3%
City Hospital	591	414	70.1%	633	410	64.8%	498	306	61.4%	1722	1130	65.6%
Good Hope Hospital	210	178	84.8%	204	175	85.8%	558	485	86.9%	972	838	86.2%
Heartlands Hospital	855	623	72.9%	1096	803	73.3%	694	535	77.1%	2645	1961	74.1%

Data quality

The gestation at booking is validated by dating scans. However, standards of record keeping, and in particular the record of completion of medical and social risk assessment, vary in quality, as demonstrated by our recent regional audit.

Performance & Progress

Most units are making good progress towards, or have already achieved, the 80% project target. However the rate appears to be decreasing at City Hospital.

Additional comments

Further improvement is required as the DH's aim is to increase the national target to 90% by end 2010/11.

Units offering a home booking service tend to have a higher attainment rate and a more comprehensive assessment of social needs.

A locality based community midwifery service model would offer economies of scale and increased capacity in achieving this target.

The forthcoming annual report will contain analyses according to subgroups such as parity, maternal age and ethnic origin.

We will also be able to provide rates according to midwifery caseloads and how they relate to medical and social risk.

KPI 1b: Two antenatal contacts before 13 weeks

Target: 60%

< 40%	40-59%	≥ 60%
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www.pi.nhs.uk/rpnm/lfh_KPI_Evidence_Targets.pdf

	KPI 1b - Two antenatal contacts before 13 weeks								
	Q2			Q3			Total / average over period Q2-Q3		
	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%
West Midlands	11065	4548	41.1%	11843	5785	48.8%	22908	10333	45.1%
Birmingham (3 PCTs)	2833	1309	46.2%	3177	1655	52.1%	6110	2964	48.5%
PCTs									
Birmingham East and North	935	332	35.5%	1065	498	46.8%	2000	830	41.5%
Heart of Birmingham Teaching	959	402	41.9%	1022	462	45.2%	1981	864	43.6%
South Birmingham	1039	575	55.3%	1090	695	63.8%	2129	1270	59.7%
Units									
Birmingham Women's Hospital	1701	1023	60.1%	1784	1145	64.2%	3485	2168	62.2%
City Hospital	642	187	29.1%	483	148	30.6%	1125	335	29.8%
Good Hope Hospital	204	104	51.0%	565	395	69.9%	769	499	64.9%
Heartlands Hospital	1107	306	27.6%	752	206	27.4%	1859	512	27.5%

Comment:

KPI 1b is added as a secondary indicator based on recommendation within NSF Standard 11 (collected since Q2). It reflects practice in some units, however many do not have the capacity currently to fulfil this target.

KPI 2: Antenatal continuity of carer

Target: 75% of visits by the same midwife

< 40%	40-74%	≥ 75%
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www.pi.nhs.uk/rpm/lfh_KPI_Evidence_Targets.pdf

	KPI 2 - Continuity of Carer (75% of visits by the same midwife)											
	Q1			Q2			Q3			Total / average over period Q1-Q3		
	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%
West Midlands	7037	3020	42.9%	11317	4335	38.3%	11911	4425	37.2%	30265	11780	38.9%
Birmingham (3 PCTs)	1999	662	33.1%	3008	919	30.6%	3196	952	29.8%	8203	2533	30.9%
PCTs												
Birmingham East and North	798	327	41.0%	954	402	42.1%	1062	412	38.8%	2814	1141	40.5%
Heart of Birmingham Teaching	786	216	27.5%	990	245	24.7%	1046	259	24.8%	2822	720	25.5%
South Birmingham	415	119	28.7%	1064	272	25.6%	1088	281	25.8%	2567	672	26.2%
Units												
Birmingham Women's Hospital	639	181	28.3%	1746	402	23.0%	1785	465	26.1%	4170	1048	25.1%
City Hospital	662	195	29.5%	679	215	31.7%	496	101	20.4%	1837	511	27.8%
Good Hope Hospital	219	84	38.4%	208	63	30.3%	561	179	31.9%	988	326	33.0%
Heartlands Hospital	864	346	40.0%	1127	509	45.2%	752	382	50.8%	2743	1237	45.1%

Data quality

Ascertainment of this data item is sometimes difficult because of illegible signatures or care providers' names not being recorded.

Performance & Progress

Results show variation between units; commentary from midwives suggest that this target is particularly challenging due to limited capacity.

Additional comments

lfH Project Board have agreed to review this indicator upon completion of 12 months of data collection.

Dispersed service models of community maternity care across the city impact upon continuity. Commissioners and providers should consider a locality based service to increase economies of scale, reduce travel and permit greater cohesion of maternity care within the community.

KPI 3: Antenatal detection of fetal growth restriction

(FGR = fetal growth restriction; IUGR = intrauterine growth restriction; SGA = small for gestational age)

Target: increase by >10% per year
 IfH 3-year project target: 60% detection
www.pi.nhs.uk/rpnm/IfH_KPI_Evidence_Targets.pdf

KPI 3: Antenatal detection of fetal growth restriction													
Q1-Q3													
	Cases with required data (Q1-Q3)	Births with FGR (birthweight <10th cust.centile)		Of all births with FGR, cases where SGA, FGR or IUGR was recorded in antenatal notes		Of births with FGR, cases with one or more EFW <10 cust. centile		Record of <i>either</i> SGA/FGR/IUGR in the notes, <i>or</i> : EFW <10th customised centile		Subgroup: of births with FGR, cases scanned following fundal height assessment		Of cases scanned following fundal height assessment, cases diagnosed as FGR	
		n	%	n	%	n	%	n	%	n	%	n	%
West Midlands	28617	4048	14.1%	885	21.9%	1021	25.2%	1191	29.4%	1153	28.5%	714	61.9%
Birmingham (3 PCTs)	7843	1083	13.8%	176	16.3%	277	25.6%	302	27.9%	307	28.3%	174	56.7%
PCTs													
Birmingham East and North	2705	361	13.3%	76	21.1%	103	28.5%	113	31.3%	136	37.7%	86	63.2%
Heart of Birmingham Teaching	2670	382	14.3%	63	16.5%	87	22.8%	98	25.7%	100	26.2%	56	56.0%
South Birmingham	2468	340	13.8%	37	10.9%	87	25.6%	91	26.8%	71	20.9%	32	45.1%
Units													
Birmingham Women's Hospital	3997	546	13.7%	63	11.5%	127	23.3%	135	24.7%	110	20.1%	50	45.5%
City Hospital	1649	259	15.7%	43	16.6%	58	22.4%	67	25.9%	48	18.5%	25	52.1%
Good Hope Hospital	973	114	11.7%	9	7.9%	27	23.7%	27	23.7%	22	19.3%	16	72.7%
Heartlands Hospital	2623	386	14.7%	106	27.5%	121	31.3%	136	35.2%	183	47.4%	117	63.9%

Data quality

Because this indicator describes a subgroup (antenatal detection) of a subgroup (cases with FGR), we present combined data for Q1-3.

'Antenatal detection' is based on close scrutiny of case notes and growth charts. Case note audit of FGR cases has shown that ascertainment by data clerks is reliable.

However, clinicians' recording of detection of SGA / FGR / IUGR is often poor; therefore an EFW <10th centile plotted on customised charts was used as an additional indicator.

Performance & Progress

FGR rates in Birmingham are similar to those in the West Midlands as a whole (13.8 and 14.1%). FGR rates vary with factors such as deprivation and smoking.

Antenatal detection **based on the actual record in the notes** is low, and lower than in WM overall. However, variation between units suggests room for improvement.

To give a further assessment, we also report on the number of cases **where at least one EFW was plotted below the 10th centile line** on the customised chart;

this shows mostly overlap, but also additional cases 'detected'. The column in bold lists the either / or detection rate. Heartlands has the highest detection rate in Birmingham.

We also present the referrals for scan on the basis of fundal height measurement plotted on customised charts; this shows that, **once referred, the detection rate can reach 60+%**.

Additional comments

More detailed analysis will be presented within the 12 month report.

Confidential enquiries into perinatal deaths have highlighted importance of GROW training for all staff (provided in twice-monthly workshops by PI)

The 2008/9 Birmingham audit has highlighted concerns about protocols for serial scanning in high risk pregnancy (www.pi.nhs.uk/ultrasound/Birmingham_FGR_Audit_-_Summary.pdf)

The Community Growth Scanning Project (CoGS) is due to commence soon in all three Birmingham units, and is expected to address some of these issues

KPI 4a: Smoking in pregnancy

 Target: to reduce smoking at delivery to
< 15% by 2010 or 1% per year

> 18%	15-18%	< 15%
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www.pi.nhs.uk/rpnm/lfh_KPI_Evidence_Targets.pdf

	Smoking at Booking											
	Q1			Q2			Q3			Total / average over period Q1-Q3		
	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%
West Midlands	6977	1438	20.6%	11231	2181	19.4%	12008	2302	19.2%	30216	5921	19.6%
Birmingham (3 PCTs)	1974	293	14.8%	2974	450	15.1%	3218	474	14.7%	8166	1217	14.9%
PCTs												
Birmingham East and North	786	118	15.0%	947	160	16.9%	1075	157	14.6%	2808	435	15.5%
Heart of Birmingham Teaching	775	84	10.8%	978	72	7.4%	1048	83	7.9%	2801	239	8.5%
South Birmingham	413	91	20.4%	1049	218	20.8%	1095	234	21.4%	2557	543	21.2%
Units												
Birmingham Women's Hospital	576	99	15.6%	1713	247	14.4%	1788	279	15.6%	4136	625	15.1%
City Hospital	600	94	14.5%	657	78	11.9%	496	62	12.5%	1803	234	13.0%
Good Hope Hospital	177	44	20.9%	207	43	20.8%	574	99	17.2%	992	186	18.8%
Heartlands Hospital	701	141	16.4%	1121	195	17.4%	756	117	15.5%	2736	453	16.6%
West Midlands												
Teenagers (< 18 at delivery)	160	73	45.6%	248	248	44.4%	251	99	39.4%	659	282	42.8%
British Europeans	4826	1327	27.5%	8351	2130	25.5%	8533	2105	24.7%	21710	5562	25.6%
British Teenagers (<18)	136	66	48.5%	220	103	46.8%	216	93	43.1%	572	262	45.8%

	Smoking at Delivery											
	Q1			Q2			Q3			Total / average over period Q1-Q3		
	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%
West Midlands	6490	966	14.9%	9944	1456	14.6%	10147	1425	14.0%	26581	3847	14.5%
Birmingham (3 PCTs)	1757	182	10.4%	2452	310	12.6%	2493	259	10.4%	6702	751	11.2%
PCTs												
Birmingham East and North	672	73	10.9%	771	100	13.0%	931	112	12.0%	2374	285	12.0%
Heart of Birmingham Teaching	707	46	6.5%	817	47	5.8%	789	36	4.6%	2313	129	5.6%
South Birmingham	378	63	16.7%	864	163	18.9%	773	111	14.4%	2015	337	16.7%
Units												
Birmingham Women's Hospital	635	68	11.8%	1428	199	13.9%	1273	128	10.1%	3277	395	12.1%
City Hospital	650	59	9.8%	509	41	8.1%	357	18	5.0%	1466	118	8.0%
Good Hope Hospital	211	23	13.0%	165	30	18.2%	465	69	14.8%	807	122	15.1%
Heartlands Hospital	859	77	11.0%	908	113	12.4%	699	96	13.7%	2308	286	12.4%
West Midlands												
British Europeans	4486	907	20.2%	7426	1419	19.1%	7237	1323	18.3%	19149	3649	19.1%
Teenagers (< 18)	139	50	36.0%	213	73	34.3%	213	68	31.9%	565	191	33.8%
British Teenagers (<18)	119	43	36.1%	192	70	36.5%	180	62	34.4%	491	175	35.6%

Smoking Cessation

	Cases where both booking and delivery information present			
	Smokers at booking	Smokers at delivery	Cessation rate	
	n	n	n	%
West Midlands	4904	3676	1228	25.0%
Birmingham (3 PCTs)	942	712	230	24.4%
PCTs				
Birmingham East and North	343	274	69	20.1%
Heart of Birmingham Teaching	173	120	53	30.6%
South Birmingham	426	318	108	25.4%
Units				
Birmingham Women's Hospital	489	365	124	25.4%
City Hospital	170	110	60	35.3%
Good Hope Hospital	152	113	39	25.7%
Heartlands Hospital	340	281	59	17.4%
West Midlands				
British Europeans	4619	3511	1108	24.0%
Teenagers (< 18)	233	187	46	19.7%
British Teenagers (<18)	215	173	42	19.5%

Data quality

The information represents individual case-by case data and is therefore considered more accurate than unit estimates.

Wherever possible, the smoking-at-delivery information should be ascertained as part of the maternal history at the time of admission to delivery suite

Performance & Progress

The target appears to be reached; however this is mainly due to the high proportion of South Asian mothers in Birmingham who have very low smoking rates.

British European mothers and teenagers have substantially higher smoking rates. Teenagers also have lower cessation rates (19.7%) than the general maternity population.

Therefore, a more targetted approach to these groups is recommended.

Additional comments

Further analysis of the effect of smoking on perinatal outcome, and its association with prematurity and fetal growth restriction, will be presented in the 12 month report.

NB regionally, referral and cessation rates are higher in units where an OPT-OUT policy is in operation for referral to smoking cessation services

KPI 5: Initiation of breastfeeding within 48hrs

Target: increase by 2% per year

< 1%	1-2%	≥ 2%
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www.pi.nhs.uk/rpnm/lfh_KPI_Evidence_Targets.pdf

	KPI 5 - Breast Feeding Initiated within 48hrs											
	Q1			Q2			Q3			Total / average over period Q1-Q3		
	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%	Cases with required data	n	%
West Midlands	5671	3279	57.8%	10340	6051	58.5%	10246	5895	57.5%	26257	15225	58.0%
Birmingham (3 PCTs)	1102	662	60.1%	2662	1538	57.8%	2518	1434	56.9%	6282	3634	57.8%
PCTs												
Birmingham East and North	658	367	55.8%	805	418	51.9%	802	392	48.9%	2265	1177	52.0%
Heart of Birmingham Teaching	316	211	66.8%	850	513	60.4%	774	500	64.6%	1940	1224	63.1%
South Birmingham	128	84	65.6%	1007	607	60.3%	942	542	57.5%	2077	1233	59.4%
Units												
Birmingham Women's Hospital	208	155	74.5%	1628	994	61.1%	1481	884	59.7%	3317	2033	61.3%
City Hospital	124	82	66.1%	568	312	54.9%	365	256	70.1%	1057	650	61.5%
Good Hope Hospital	152	85	55.9%	132	80	60.6%	503	309	61.4%	787	474	60.2%
Heartlands Hospital*	788	451	57.2%	928	483	52.0%	452	113	25.0% *	2168	1047	48.3% *
West Midlands												
Teenagers (< 18 at delivery)	140	37	26.4%	228	77	33.8%	222	67	30.2%	590	181	30.7%
British-Europeans	4245	2299	54.2%	7747	4319	55.8%	7501	4036	53.8%	19493	10654	54.7%

Data quality

Collection of this indicator is difficult because:

1. Reliance on the labour record is insufficient as breastfeeding may not have commenced yet before discharge;
2. The postnatal notes are taken home by the mother and there is often a delay before they are available to the data clerks; or
3. The time of commencement is not recorded. Improved documentation around time of first breastfeed is vitally important.

* In the case of Heartlands, lack of availability of postnatal notes, and poor documentation of time of first feed, resulted in low rates shown for Q3

Performance & Progress

Target in terms of yearly increase will be able to be reported on next year, with current year used as a baseline

Overall breastfeeding initiation runs at 55-60% only, and is substantially lower in teenagers.

Additional comments

Birmingham Health & Wellbeing partnership have instigated a baby friendly task group to support and monitor progression towards city-wide 'baby friendly status'.

