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6th April 2010

To: Warwickshire PCT
Warwickshire Maternity Units
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.

For **Warwickshire**, the key points are

- Good case ascertainment;
- however record keeping is often substandard, with frequent omissions of essential information;
- early booking target exceeded;
- IUGR detection rates are low but not worse than the regional average;
- national smoking-in-pregnancy targets are met overall but show variation between the two provider units.

Also included are a preliminary set of indicators from the WM dataset, with demographics and characteristics of pregnancies for Warwickshire. 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 (September – 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 WM maternity 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)	(%)	
Total West Midlands	23.7	23.2		17973	7385	41%	18154	12769	70%	18229	12985	71%	
George Eliot	0.8	0.8	0.8WTE commenced late April	626	465	74%	626	571	91%	626	359	57%	Process changed to direct entry onto PEER to increase submissions - now on target
Warwick	0.8	0.8	0.8WTE commenced July	688	0	0%	634	603	95%	646	598	93%	Excellent progress

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%
PCTs												
Warwickshire	374	342	91.4%	1052	948	90.1%	1000	874	87.4%	2426	2164	89.2%
Units												
George Eliot Hospital	461	421	91.3%	565	509	90.1%	347	323	93.1%	1373	1253	91.3%
Warwick Hospital	0	0	0.0%	596	541	90.8%	585	491	83.9%	1181	1032	87.4%

Percentages in grey represent small numbers (n <100) and should be interpreted with caution

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

Both units have exceeded the 80% project target. George Eliot has the highest booking rate in the Region.

Additional comments

Further improvement needs to be maintained 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 offers 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%
PCTs									
Warwickshire	1047	285	27.2%	1000	310	31.0%	2047	595	29.1%
Units									
George Eliot Hospital	558	296	53.0%	342	210	61.4%	900	506	56.2%
Warwick Hospital	596	35	5.9%	587	34	5.8%	1183	69	5.8%

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. Documentation around dating scan can make this KPI difficult to assess. The particularly low rate at Warwick is because there is no routine midwifery contact at the time of the dating scan.

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/rpnm/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%
PCTs												
Warwickshire	373	187	50.1%	1058	380	35.9%	999	318	31.8%	2430	885	36.4%
Units												
George Eliot Hospital	459	238	51.9%	567	239	42.2%	341	140	41.1%	1367	617	45.1%
Warwick Hospital	0	0		598	188	31.4%	586	163	27.8%	1184	351	29.6%

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

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

Dispersed service models of community maternity 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
lfH 3-year project target: 60% detection
www.pi.nhs.uk/rpnm/lfH_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 <u>either</u> SGA/FGR/IUGR in the notes, <u>or</u> : 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	
		Total	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%
PCTs													
Warwickshire	2346	272	11.6%	63	23.2%	71	26.1%	84	30.9%	77	28.3%	50	64.9%
Units													
George Eliot Hospital	1309	182	13.9%	39	21.4%	41	22.5%	53	29.1%	46	25.3%	37	80.4%
Warwick Hospital	1162	123	10.6%	32	26.0%	34	27.6%	38	30.9%	39	31.7%	21	53.8%

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 a recording of an EFW <10th centile was used as an additional indicator.

Performance & Progress

FGR rates vary with factors such as deprivation and smoking. They vary between the two provider units but are still lower overall in Warwickshire than the West Midlands.

To give a further assessment, we also report on the number of cases where at least one EFW below the 10th centile was recorded.

This shows mostly overlap, but also additional cases 'detected'. The column in bold lists the either / or detection rate and shows that detection rate is comparable to the regional average.

We also present the referrals for scan on the basis of fundal height measurement plotted on customised charts; this shows that, **for those referred, the detection rate is substantially higher.**

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)

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%
PCTs												
Warwickshire	369	94	25.4%	1055	198	18.8%	1006	156	15.5%	2430	448	18.4%
Units												
George Eliot Hospital	402	120	26.4%	564	145	25.7%	348	77	22.1%	1366	342	25.0%
Warwick Hospital	0	0		598	83	13.9%	587	70	11.9%	1185	153	12.9%

West Midlands

British Europeans	4826	1327	27.5%	8351	2130	25.5%	8533	2105	24.7%	21710	5562	25.6%
Teenagers (< 18 at delivery)	160	73	45.6%	248	248	44.4%	251	99	39.4%	659	282	42.8%
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%
PCTs												
Warwickshire	325	75	23.1%	924	135	14.6%	763	72	9.4%	2012	282	14.0%
Units												
George Eliot Hospital	454	97	24.1%	436	103	23.6%	292	33	11.3%	1130	233	20.6%
Warwick Hospital	0	0		574	58	10.1%	493	43	8.7%	1067	101	9.5%

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%
PCTs				
Warwickshire	331	264	67	20.2%
Units				
George Eliot Hospital	264	212	52	19.7%
Warwick Hospital	125	101	24	19.2%

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

Smoking rates at delivery reach the target overall but vary substantially between units. Cessation rates are below the regional average in both units. Teenagers have higher smoking rates and lower cessation rates than the general maternity population. Because of small numbers, WM figures only are given for this group.

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		
	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%
PCTs												
Warwickshire	366	225	61.5%	962	662	68.8%	897	632	70.5%	2225	1519	68.3%
Units												
George Eliot Hospital	457	283	61.9%	541	316	58.4%	318	176	55.3%	1316	775	58.9%
Warwick Hospital	0	0		522	412	78.9%	587	470	80.1%	1109	882	79.5%

West Midlands

Teenagers (< 18)	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.

Performance & Progress

Breastfeeding initiation rate in Warwickshire is above the regional average but shows significant variation between the units.

Additional comments

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

WARWICKSHIRE cases submitted in Q2 & Q3, 2009/10: n=2,155

		%			%			%	
Multiple pregnancies		1.4%	Maternal age			Place of birth			
Ethnic origin (main groups)			<18	1.3%		Hospital	96.2%		
British-European	84.0%		<20	6.0%		Midwife led unit	0.2%		
Eastern Europe	3.9%		35+	17.7%		Home	2.3%		
African	1.1%		40+	2.6%		Born before arrival	1.3%		
African Caribbean	0.2%		Obesity: BMI			Labour induced	22.4%		
Bangladeshi	0.0%		>30	15.9%		Mode of birth	All parities Primips		
Indian	4.2%		>35	5.7%		Normal	61.9%	52.0%	
Pakistani	0.5%		>40	1.8%		Ventouse	7.1%	11.7%	
Other	6.0%		Smoker			Forceps	4.0%	7.4%	
Country of birth (main groups)			at booking	17.2%		Breech	0.3%	0.3%	
UK	87.2%		of these, referred to advisor	64.6%		C Section	26.7%	28.5%	
Poland	2.9%		at delivery	12.4%		Caesarean Section			
Bangladesh	0.0%		other smokers in household	27.2%		Emergency	11.2%	16.7%	
India	1.6%		Drug misuse			Urgent	3.2%	5.4%	
Pakistan	0.3%		of these, referred	7.1%		Scheduled	0.8%	0.7%	
Yemen & Horn of Africa	0.0%		Asked about domestic abuse			Elective	11.2%	5.3%	
Other	8.0%		of these, DA disclosed	14.0%		Undocumented	1.0%	0.4%	
Interpreter required	1.7%		Mental health problems	12.9%		Episiotomy	16.9%		
Father is blood relation			Diabetes	1.5%		Perineum (excl episiotomy)			
Average	0.8%		Heart disease	2.7%		Intact	58.4%		
British-European	0.4%		Pre-existing hypertension	5.8%		Tear - degree: 1st	12.0%		
Pakistani	33.3%		Folic acid taken antenatally	86.0%		2nd	28.5%		
Bangladeshi	0.0%		Pregnancy dated by ultrasound	99.6%		3rd	0.9%		
Middle East	0.0%		Screening for Down's offered	93.7%		4th	0.0%		
Employed			Antenatal visits			Undocumented	0.0%		
full time	45.6%		median	8	mean	7.7	Fetal growth restriction (bwt <10th cust.centile)	10.9%	
part time	23.7%		Antenatal visits - same midwife				Prematurity		
looking after home	17.1%		median	5	mean	4.9	<37 weeks	5.2%	
student	1.8%		Seen for decreased fetal movements	22.5%		<34 weeks	1.4%		
unemployed	8.6%		Pregnancy complications:			Apgar at 1 <4	1.6%		
other	3.1%		Antepartum haemorrhage	7.7%		Apgar at 5 <7	1.4%		
Housing			Pregnancy induced hypertension	5.6%		Put to breast	71.4%		
owner	53.5%		Pre-eclampsia	1.0%		Postnatal visits			
rents	32.1%		HELLP Syndrome	0.0%		median	4	mean	4.2
with family/friends	13.2%		Gestational Diabetes	3.2%		Postnatal visits - same midwife			
other	1.2%					median	2	mean	2.1
No partner	2.7%								

Note: These are preliminary rates of data based on WM maternity dataset collected in PEER (Perinatal Episode Electronic Record). Further analysis will be presented within the 12 month report.