8th April 2010

To: Shropshire County & Telford & Wrekin PCTs
        Royal Shrewsbury Hospital & MLUs
        NHS West Midlands

Dear Colleague,

This is the **third interim report of the IfH perinatal 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 **Shropshire,** the key points are
- improved ascertainment of data;
- however record keeping often substandard, with frequent omissions of essential information;
- progress towards early booking target;
- low IUGR detection rates;
- national smoking-in-pregnancy targets not being met, and cessation rates low.

Also included are a preliminary set of indicators of the WM dataset, with demographics and characteristics of pregnancies for Shropshire. 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

Unit	WTE funded	WTE employed (Feb 2010)	Recruitment details	Est. Births Q1	Q1 Submissions (n)	Q1 Submissions (%)	Est. Births Q2	Q2 Submissions (n)	Q2 Submissions (%)	Est. Births Q3	Q3 Submissions (n)	Q3 Submissions (%)	Comments
West Midlands	23.7	23.2		17973	7385	**41%**	18154	12769	**70%**	18229	12985	**71%**	
Shrewsbury & MLUs	1.7	1.6	0.6 commenced May. 1WTE commenced October (Temp)	1317	172	**13%**	1317	102	**8%**	1317	696	**53%**	Large backlog due to initial understaffing, good catch up since recruitment; concerns about dataset disparities

Interim (Q1) submission target

<60%	60-79%	≥80%

Project submission target

<80%	80-89%	≥90%

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%

www.pi.nhs.uk/rpnm/IfH_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												
Shropshire County	81	74	91.4%	89	68	76.4%	368	315	85.6%	538	457	84.9%
Telford and Wrekin	79	70	88.6%	41	29	70.7%	297	211	71.0%	417	310	74.3%
Unit												
Shrewsbury Hospital & MLUs	162	143	88.3%	100	77	77.0%	671	534	79.6%	933	754	80.8%

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
Unit has achieved the 80% project target, although there is variation between the PCTs

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%

www.pi.nhs.uk/rpnm/IfH_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									
Shropshire County	91	56	61.5%	364	286	78.6%	455	342	75.2%
Telford and Wrekin	41	22	53.7%	295	183	62.0%	336	205	61.0%
Unit									
Shrewsbury Hospital & MLUs	99	70	70.7%	663	486	73.3%	762	556	73.0%

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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%

www.pi.nhs.uk/rpnm/IfH_KPI_Evidence_Targets.pdf

	KPI 2 - Continuity of Carer (75% of visits by the same midwife)											
	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	7037	3020	42.9%	11317	4335	38.3%	11911	4425	37.2%	30265	11780	38.9%
PCTs												
Shropshire County	84	20	23.8%	96	19	19.8%	358	40	11.2%	538	79	14.7%
Telford and Wrekin	81	13	16.0%	38	7	18.4%	291	28	9.6%	410	48	11.7%
Unit												
Shrewsbury Hospital & MLUs	167	31	18.6%	99	17	17.2%	655	62	9.5%	921	110	11.9%

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

Data quality

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

Comments

Attainment of this target depends to a large extent also on the way the service is configured. 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. The IfH Project Board have agreed to review this indicator upon completion of 12 months of data collection.

KPI 3: Antenatal detection of fetal growth restriction

(FGR = fetal growth restriction; IUGR = intrauterine growth restriction; SGA = small for gestational age)
(EFW = estimated fetal weight based on ultrasound scan)

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 *either* SGA/FGR/IUGR in the notes, *or*: 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													
Shropshire County	530	66	12.5%	13	19.7%	5	7.6%	14	**21.2%**	16	24.2%	8	**50.0%**
Telford and Wrekin	409	59	14.4%	13	22.0%	5	8.5%	13	**22.0%**	21	35.6%	13	**61.9%**
Unit													
Shrewsbury Hospital & MLUs	903	122	13.5%	25	20.5%	9	7.4%	25	**20.5%**	37	30.3%	21	**56.8%**

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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 Shropshire are similar to those in the West Midlands as a whole (13.5 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.

We also report on the number of cases **where at least one EFW was below the 10th centile**; however Shrewsbury does not routinely generate EFWs plotted on cust. charts.

The column in bold lists the either / or detection rate.

Referrals for scan on the basis of fundal height measurement plotted on customised charts is also listed; 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% |

	Smoking at Booking											
	Q1			Q2			Q3			Total / average over period Q2-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												
Shropshire County	83	15	18.1%	96	22	22.9%	378	80	**21.2%**	557	117	**21.0%**
Telford and Wrekin	82	13	15.9%	42	15	35.7%	304	83	**27.3%**	428	111	**25.9%**
Unit												
Shrewsbury Hospital & MLUs	166	29	17.6%	100	28	28.0%	681	158	**23.2%**	947	215	**22.7%**
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 Q2-Q3		
West Midlands	6490	966	14.9%	9944	1456	14.6%	10147	1425	**14.0%**	26581	3847	**14.5%**
PCTs												
Shropshire County	84	11	13.1%	94	17	18.1%	373	70	**18.8%**	551	98	**17.8%**
Telford and Wrekin	82	12	14.6%	41	11	26.8%	301	75	**24.9%**	424	98	**23.1%**
Unit												
Shrewsbury Hospital & MLUs	165	24	14.5%	97	24	24.7%	676	143	**21.2%**	938	191	**20.4%**
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%**

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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				
Shropshire County	97	82	15	**15.5%**
Telford and Wrekin	109	96	13	**11.9%**
Units				
Shrewsbury Hospital & MLUs	208	183	25	**12.0%**
West Midlands				
Teenagers (< 18)	233	187	46	**19.7%**
British Europeans	4619	3511	1108	**24.0%**

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 are higher than in the West Midlands overall, and the cessation rates are low.
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%

www.pi.nhs.uk/rpnm/IfH_KPI_Evidence_Targets.pdf

	KPI 5 - Breast Feeding Initiated within 48hrs											
	Q1			Q2			Q3			Total / average over period Q2-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%**
PCTs												
Shropshire County	81	61	75.3%	92	57	62.0%	372	273	**73.4%**	464	330	**71.1%**
Telford and Wrekin	79	53	67.1%	41	30	73.2%	303	183	**60.4%**	423	266	**62.9%**
Unit												
Shrewsbury Hospital & MLUs	163	118	72.4%	97	63	64.9%	683	469	**68.7%**	943	650	**68.9%**

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%**

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

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 rates are above the regional average

Additional comments

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

SHROPSHIRE PCT and TELFORD & WREKIN PCT cases submitted in Q2 & Q3, 2009/10: n=854

	%			%				%		
Multiple pregnancies	2.2%	**Maternal age**				**Place of birth**				
			<18	2.9%			Hospital	78.9%		
Ethnic origin (main groups)			<20	7.7%			Midwife led unit	18.9%		
British-European	90.5%		35+	15.7%			Home	2.1%		
Eastern Europe	2.5%		40+	2.4%			Born before arrival	0.1%		
African	0.6%									
African Caribbean	0.0%	**Obesity: BMI**				**Labour induced**		26.5%		
Bangladeshi	0.1%		>30	21.0%						
Indian	1.6%		>35	8.3%		**Mode of birth**		All parities	Primips	(42.2%)
Pakistani	1.7%		>40	2.5%			Normal	73.3%	64.9%	
Other	3.0%						Ventouse	4.1%	7.9%	
		Smoker					Forceps	4.5%	7.9%	
Country of birth (main groups)			at booking	24.6%			Breech	0.2%	0.0%	
UK	94.1%		of these, referred to advisor		50.7%		C Section	17.9%	19.3%	
Poland	1.9%		at delivery	21.4%			**Type of CS**			
Bangladesh	0.1%		other smokers in household	44.1%			Emergency	4.2%	4.2%	
India	0.0%						Urgent	5.2%	8.5%	
Pakistan	1.3%	**Drug misuse**		1.9%			Scheduled	0.9%	1.7%	
Yemen & Horn of Africa	0.0%		of these, referred	66.7%			Elective	7.5%	4.8%	
Other	2.7%						Undocumented	0.0%	0.0%	
		Asked about domestic abuse		39.2%						
Interpreter required	2.5%		of these, DA disclosed	2.8%		**Episiotomy**		14.1%		
Father is blood relation		**Mental health problems**		17.1%		**Perineum (excl episiotomy)**				
Average	8.1%						Intact	59.7%		
British-European	6.3%	**Diabetes**		0.6%		**Tear -** degree: 1st		13.8%		
Pakistani	100.0%	**Heart disease**		1.7%			2nd	24.3%		
Bangladeshi	0.0%	**Pre-existing hypertension**		2.0%			3rd	1.7%		
Middle East	0.0%						4th	0.1%		
		Folic acid taken antentally		92.8%			Undocumented	0.0%		
Employed		**Pregnancy dated by ultrasound**		99.3%						
full time	37.7%	**Screening for Down's offered**		89.7%		**Fetal growth restriction (bwt <10th cust.centile)**		13.0%		
part time	23.8%						detected antenatally	24.0%		
looking after home	22.9%	**Antenatal visits**								
student	4.4%		median	8	mean 8.3	**Prematurity**				
unemployed	8.5%	**Antenatal visits - same midwife**					<37 weeks	7.1%		
other	2.9%		median	4	mean 3.9		<34 weeks	3.2%		
Housing		**Seen for decreased fetal movements**		14.4%		**Apgar at 1 <4**		2.0%		
owner	37.5%					**Apgar at 5 <7**		0.8%		
rents	32.8%	**Pregnancy complications:**								
with family/friends	4.7%	Antepartum haemorrhage	10.3%			**Put to breast**		68.0%		
other	25.0%	Pregnancy induced hypertension	3.0%							
		Pre-eclampsia	1.6%			**Postnatal visits**				
No partner	3.7%	HELLP Syndrome	0.4%				median	4	mean	3.9
		Gestational Diabetes	1.4%			**Postnatal visits - same midwife**				
							median	2	mean	1.9

Note: These are preliminary rates based on the WM maternity dataset collected in PEER (Perinatal Episode Electronic Record). **They are based on relatively small numbers and should be interpreted with caution.**
Further analysis will be presented within the 12 month report.