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 O Gardosi MD FRCOG FRCSED

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

12th April 2010

To: Worcestershire PCT
Alexandra Hospital and Worcester Royal Hospital
NHS West Midlands

Dear Colleague,

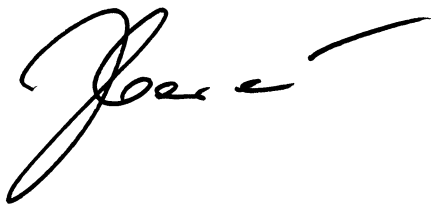
This is the **third interim report of the IfH data collection programme**. We present results from Q3 as well as a totals for the first 3 quarters. KPI3, the indicator concerning detection of IUGR, is also included.

For **Worcestershire,** the key points are:

- major outstanding issues with ascertainment of data;
- record keeping is often substandard, with frequent omissions of essential information;
- early booking target achieved in Q3;
- IUGR detection rates are short of target but slightly better than the regional average;
- smoking-in-pregnancy target met in Q3, but wide variation between units.

Also included are a preliminary set of indicators from the WM dataset, with demographics and characteristics of pregnancies for Worcestershire. 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	Q1 Est. Births Q1	Q1 Submissions (n)	Q1 Submissions (%)	Q2 Est. Births Q2	Q2 Submissions (n)	Q2 Submissions (%)	Q3 Est. Births Q3	Q3 Submissions (n)	Q3 Submissions (%)	Comments
Total West Midlands	23.7	23.2		17973	7385	**41%**	18154	12769	**70%**	18229	12985	**71%**	
Alexandra	0.6	0.6	0.6WTE commenced in July 2009	463	1	**0%**	463	307	**66%**	480	423	**88%**	Shows improvement, but ongoing problems with lack of permanent base & access to notes
Worcester	1.3	1.3	1.3WTE commenced July 2009	1003	0	**0%**	**923**	809	**88%**	1003	285	**28%**	Permanent computer terminal yet to be arranged resulting in less efficient submission rates. Clerks recently obtained laptops

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.

NOTE: There are outstanding infrastructure issues for data collection on both sites that need to be addressed urgently.

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%**
PCT												
Worcestershire	33	29	87.9%	1028	824	80.2%	680	569	**83.7%**	1741	1422	**81.7%**
Units												
Alexandra Hospital	1	0	0.0%	299	223	74.6%	418	335	**80.1%**	718	558	**77.7%**
Worcestershire Royal Hospital	0	0		755	611	80.9%	261	220	**84.3%**	1016	831	**81.8%**

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

The 80% project target has been achieved in Q3.

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%**
PCT									
Worcestershire	1051	389	37.0%	693	401	**57.9%**	1744	790	**45.3%**
Units									
Alexandra Hospital	295	26	8.8%	418	267	**63.9%**	713	293	**41.1%**
Worcestershire Royal Hospital	783	338	43.2%	276	135	**48.9%**	1059	473	**44.7%**

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.
Particularly low rates may be 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%

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 / 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%**
PCT												
Worcestershire	34	15	44.1%	1066	232	21.8%	692	147	**21.2%**	1792	394	**22.0%**
Units												
Alexandra Hospital	1	0	0.0%	300	87	29.0%	419	115	**27.4%**	720	202	**28.1%**
Worcestershire Royal Hospital	0	0		791	152	19.2%	276	38	**13.8%**	1067	190	**17.8%**

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.

Performance & Progress

Results show that continuity is below regional average, with variation between units.
Commentary from midwives suggest that this target is particularly challenging due to limited capacity.

Additional 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)

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%**
PCT															
Worcestershire	1620	210	13.0%		41	19.5%	56	26.7%	65	**31.0%**		38	18.1%	23	**60.5%**
Units															
Alexandra Hospital	590	68	11.5%		15	22.1%	17	25.0%	20	**29.4%**		9	13.2%	4	**44.4%**
Worcestershire Royal Hospital	1007	130	12.9%		28	21.5%	39	30.0%	45	**34.6%**		29	22.3%	20	**69.0%**

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

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 was used as an additional indicator.

Performance & Progress

FGR rates in Worcestershire are lower than those in the West Midlands as a whole (13.0 and 14.1%). Rates vary with factors such as deprivation and smoking.
Antenatal detection is calculated on the basis of the actual record in the notes as well where at least one EFW below the 10th centile line was recorded.
The detection rate in Worcestershire **is short of the aspirational target, although slightly better than the regional average**
There is variation between the units suggesting room for improvement, although there is insufficient data from the Alexandra as yet for firm conclusions.
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%

www.pi.nhs.uk/rpnm/IfH_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%**
PCT												
Worcestershire	34	2	5.8%	1057	209	19.8%	696	132	**19.0%**	1787	343	**19.2%**
Units												
Alexandra Hospital	1	1	100.0%	296	54	18.2%	417	80	**19.2%**	714	135	**18.9%**
Worcestershire Royal Hospital	0	0		788	160	20.3%	278	55	**19.8%**	1066	215	**20.2%**
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		
West Midlands	**6490**	**966**	14.9%	**9944**	**1456**	14.6%	**10147**	**1425**	**14.0%**	**26581**	**3847**	**14.5%**
PCT												
Worcestershire	31	0	0.0%	888	147	16.6%	539	77	**14.3%**	1458	224	**15.4%**
Units												
Alexandra Hospital	1	1	100.0%	213	28	13.1%	308	38	**12.3%**	522	67	**12.8%**
Worcestershire Royal Hospital	0	0		702	126	17.9%	231	42	**18.2%**	933	168	**18.0%**
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%**

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

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%**
PCT				
Worcestershire	261	214	47	**18.0%**
Units				
Alexandra Hospital	88	66	22	**25.0%**
Worcestershire Royal Hospital	178	157	21	**11.8%**
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

Overall target met in Q3 but wide variation in smoking rates between the units. Cessation rates are below the regional average at Worcester Royal.

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		
	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%**
PCT												
Worcestershire	20	16	80.0%	968	662	68.4%	669	439	**65.6%**	1657	1117	**67.4%**
Units												
Alexandra Hospital	0	0		301	219	72.8%	413	261	**63.2%**	714	480	**67.2%**
Worcestershire Royal Hospital	0	0		682	458	67.2%	261	188	**72.0%**	943	646	**68.5%**
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%**

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 intiation 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

WORCESTERSHIRE cases submitted in Q2 & Q3, 2009/10: n=2,098

	%
Multiple pregnancies	2.1%
Ethnic origin (main groups)	
British-European	84.9%
Eastern Europe	5.5%
African	0.4%
African Caribbean	0.2%
Bangladeshi	0.4%
Indian	1.4%
Pakistani	3.1%
Other	4.0%
Country of birth (main groups)	
UK	86.8%
Poland	4.2%
Bangladesh	0.3%
India	0.8%
Pakistan	1.9%
Yemen & Horn of Africa	0.1%
Other	5.9%
Interpreter required	2.6%
Father is blood relation	
Average	2.8%
British-European	1.1%
Pakistani	52.5%
Bangladeshi	0.0%
Middle East	14.3%
Employed	
full time	42.2%
part time	24.8%
looking after home	16.7%
student	2.7%
unemployed	10.3%
other	3.4%
Housing	
owner	50.9%
rents	34.7%
with family/friends	12.2%
other	2.2%
No partner	2.4%

	%		
Maternal age			
<18	1.9%		
<20	6.4%		
35+	15.6%		
40+	1.8%		
Obesity: BMI			
>30	17.5%		
>35	6.2%		
>40	2.2%		
Smoker			
at booking	19.0%		
of these, referred to advisor		59.1%	
at delivery	15.1%		
other smokers in household		28.7%	
Drug misuse	1.0%		
of these, referred	23.5%		
Asked about domestic abuse	6.7%		
of these, DA disclosed	14.4%		
Mental health problems	15.9%		
Diabetes	0.7%		
Heart disease	3.3%		
Pre-existing hypertension	3.0%		
Folic acid taken antentally	88.3%		
Pregnancy dated by ultrasound	99.2%		
Screening for Down's offered	95.0%		
Antenatal visits			
median	8	mean	8.2
Antenatal visits - same midwife			
median	4	mean	4.2
Seen for decreased fetal movements	21.4%		
Pregnancy complications:			
Antepartum haemorrhage	8.2%		
Pregnancy induced hypertension	4.1%		
Pre-eclampsia	4.3%		
HELLP Syndrome	0.9%		
Gestational Diabetes	3.4%		

	%			
Place of birth				
Hospital	97.8%			
Midwife led unit	0.7%			
Home	1.1%			
Born before arrival	0.3%			
Labour induced	24.1%			
Mode of birth	**All parities**	**Primips**	45.0%	
Normal	63.1%	53.1%		
Ventouse	5.0%	8.0%		
Forceps	6.2%	11.8%		
Breech	0.5%	0.3%		
C Section	25.2%	26.7%		
Caesarean Section				
Emergency	9.8%	16.1%		
Urgent	2.6%	3.5%		
Scheduled	1.0%	0.9%		
Elective	10.9%	4.8%		
Undocumented	3.8%	1.5%		
Episiotomy	17.1%			
Perineum (excl episiotomy)				
Intact	54.3%			
Tear				
degree: 1st	12.0%			
2nd	27.6%			
3rd	1.8%			
4th	0.1%			
Undocumented	4.1%			
Fetal growth restriction (bwt <10th cust.centile)	12.9%			
Prematurity				
<37 weeks	9.5%			
<34 weeks	2.9%			
Apgar at 1 <4	1.8%			
Apgar at 5 <7	1.4%			
Put to breast	69.5%			
Postnatal visits				
median	4	mean	4.5	
Postnatal visits - same midwife				
median	2	mean	2.2	

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.