

3. KPIS FOR MATERNITY CARE: BASELINE RATES FOR WEST MIDLANDS CCGS



3.1 Introduction

Under the new NHS, maternity care in the West Midlands will face new challenges, and Clinical Commissioning Groups (CCGs) as the new agencies responsible for commissioning equitable, safe and cost effective care, will have to be aware of the needs of their population.

In collaboration with the West Midlands Strategic Health Authority and all of the region's Primary Care Trusts (PCTs), West Midlands Perinatal Institute (WMPI) conducted a region wide maternity data collection programme from 2009-2011 which included 5 Key Performance Indicators (KPIs) agreed by West Midlands stakeholders. The KPIs were:

1. Early booking
2. Continuity of carer
3. Antenatal detection of fetal growth restriction
4. Smoking in pregnancy
5. Breastfeeding initiation

The KPIs together with a set of population descriptors and quality indicators were reported within quarterly reports www.pi.nhs.uk/pnm/maternity_reports.htm and the interactive PEERview reporting system for data by Cluster, PCT and Maternity unit / Trust www.pi.nhs.uk/PEERview/2a/Display.aspx.

Trend analysis showed that even over this relatively short period, there were demonstrable improvements in the overall regional performance within each KPI, which was attributed to the monitoring and identifying of areas needing improvement.

In this chapter for West Midlands Key Health Data 2013, we present an overview of the evidence and rationale for each KPI, together with the average performance within each CCG area *as a baseline based on the period (2009-2011) when comprehensive regional data were collected from all units*. As can be seen, there is considerable variation in the levels each of these indicators.

With the termination of the WMPI's regional remit and funding from April 2013, this will be our final report on such data. To address the wide variation, we recommend that CCGs ensure continued monitoring of such performance, as these are important patient level indicators of the quality of maternity care that mothers and babies receive in the West Midlands.

3.2 Key Performance Indicators

Key Performance Indicator 1: EARLY BOOKING

Definition:

Proportion of all pregnancies where the woman had a health and social care assessment before 12 completed weeks of pregnancy.

Target - 90% in first trimester (=up to 12 weeks 6 days of pregnancy)

Red	<80%
Amber	80-89%
Green	90+%

Rationale: National policy and guidelines recommend that all women have seen a midwife or a maternity healthcare professional for health and social care assessment of needs, risks and choices by 12 completed weeks of pregnancy

Context: Early booking is essential to engage the mother early in her care, to be aware of essential information about the pregnancy and available choices, and for her carers to be able to assess risk and needs.

Associated links:

- Maternity Matters: Choice, Access and Continuity of Care in a Safe Service (2007)
www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_073312
- NICE Clinical Guideline. Antenatal Care: Routine Care for the Healthy Pregnant Woman. NICE March 2008 www.nice.org.uk/guidance/index.jsp?action=download&o=40115
- NHS West Midlands IfH Project 2C Workstream 4: Building Commissioning Capacity
www.ifh.westmidlands.nhs.uk/FileDocs/pdf/323.pdf
- Reducing Perinatal Mortality Project indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm
- Birmingham Infant Mortality indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm

Existing Data item for National targets:

- Payment by results, DH (2012) – Antenatal care pathway payment is contingent upon risk assessment at booking
www.dh.gov.uk/health/2012/02/maternity-pathway-payment-system
- National Vital Signs (2008)
www.dh.gov.uk/en/publicationsandstatistics/publications/publicationspolicy_and_guidance/DH_082542

Required data item from 2013:

- Commissioning outcomes framework, NCB (2012)
www.nice.org.uk/aboutnice/cof/MaternityAndReproductive.jsp

Regional target:

- Quarterly Health Improvement report
- West Midlands Perinatal Commissioning Group Maternity Services Specification (2012)

Comment: This indicator has shown ongoing improvement. More up to date figures for CCG populations where data collection has continued are available on PEERView.
www.pi.nhs.uk/PEERview/2a/Display.aspx

Key Performance Indicators

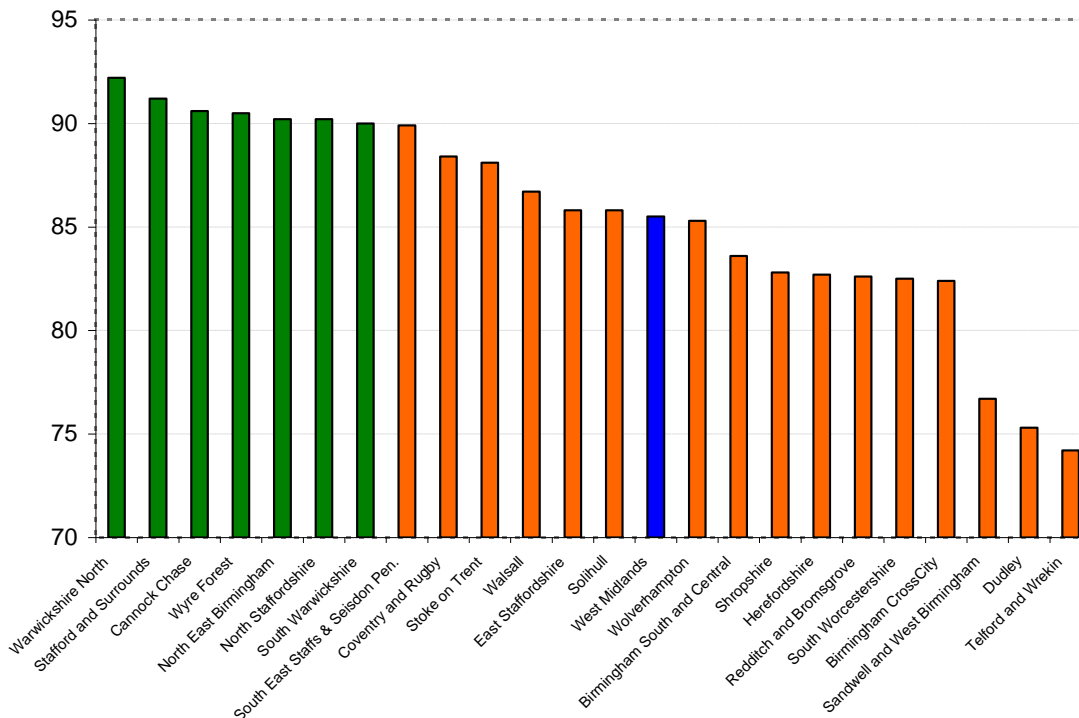
Data Source: PEER - West Midlands Perinatal Institute
 Data Period: July 2009 - January 2011

KPI1: Early Booking

Clinical Commissioning Group	%	95% CI
West Midlands	85.5	85.9 - 85.3
Birmingham CrossCity	82.4	81.7-83.1
Birmingham South and Central	83.6	82.6 - 84.6
Cannock Chase	90.6	89.6 - 91.4
Coventry and Rugby	88.4	87.9 - 89.0
Dudley	75.3	74.3 - 76.2
East Staffordshire	85.8	84.6 - 86.9
Herefordshire	82.7	81.6 - 83.8
North East Birmingham	90.2	88.8 - 91.4
North Staffordshire	90.2	89.3 - 91.0
Redditch and Bromsgrove	82.6	81.0 - 84.1
Sandwell and West Birmingham	76.7	76.0 - 77.4
Shropshire	82.8	81.2 - 84.4
Solihull	85.8	84.5 - 87.1
South East Staffs & Seisdon Pen.	89.9	89.1 - 90.8
South Warwickshire	90.0	89.3 - 90.7
South Worcestershire	82.5	81.2 - 83.8
Stafford and Surrounds	91.2	90.2 - 92.0
Stoke on Trent	88.1	87.4 - 88.7
Telford and Wrekin	74.2	72.0 - 76.3
Walsall	86.7	86.1 - 87.3
Warwickshire North	92.2	91.5 - 92.9
Wolverhampton	85.3	84.2 - 86.3
Wyre Forest	90.5	88.5 - 92.2

Early Booking

Target Ranges
90+
70 - 89
<70



Key Performance Indicator 2: CONTINUITY OF CARER

Definition: Total number of antenatal visits in primary care setting divided by number with two lead professionals in community

Target - 75% of visits with one of the same 2 maternity health care professionals in community setting

Thresholds

Red	<40%
Amber	40-74%
Green	75% +

Rationale: National policy and guidance supports continuity of carer during pregnancy. Maternity Matters states 'every woman will be supported by a midwife she knows and trusts throughout her pregnancy and after birth' (p5)

Context: Initial attempt to define it as contact with one midwife proved not feasible, so Investing for Health Board amended this KPI to '*one of two lead carers*'. Indicator important to foster supportive ongoing relationship with mother which is more likely to help develop trust and detect warning signs of developing medical and social risks during pregnancy.

Associated evidence

- Maternity Matters: Choice, Access and Continuity of Care in a Safe Service (2007): www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_073312
- NICE Clinical Guideline. Antenatal Care: Routine Care for the Healthy Pregnant Woman. NICE March 2008 www.nice.org.uk/guidance/index.jsp?action=download&o=40115
- Local evidence: The Bellevue Model. Please refer to: www.perinatal.nhs.uk/pc-aims/main.htm
- Saving Mother's Lives, BJOG (2006-08) www.bjog.org/details/news/1025937/New_BJOG_supplement_published_today_CMACE_Saving_Mothers_Lives_report.html
- Patient experience in adult NHS services (2012) www.nice.org.uk/guidance/qualitystandards/patientexperience/ContinuityOfCare.jsp

Existing Data item for:

- Quarterly Health Improvement report
- The NHS Outcomes Framework, DH, 2011/12
- Domain 4.5 improving women and their families experience of care healthandcare.dh.gov.uk/outcomes-frameworks/

Comment: This KPI often depends on the way maternity services are organised, and the wide variation shown in the ensuing Table and Graph is an indication of this. Nevertheless, continuity of carer is an important KPI to ensure midwives get to know the women they are caring for, can spot any changes and ensure the wellbeing of mother and baby.

Key Performance Indicators

Data Source: PEER, West Midlands Perinatal Institute

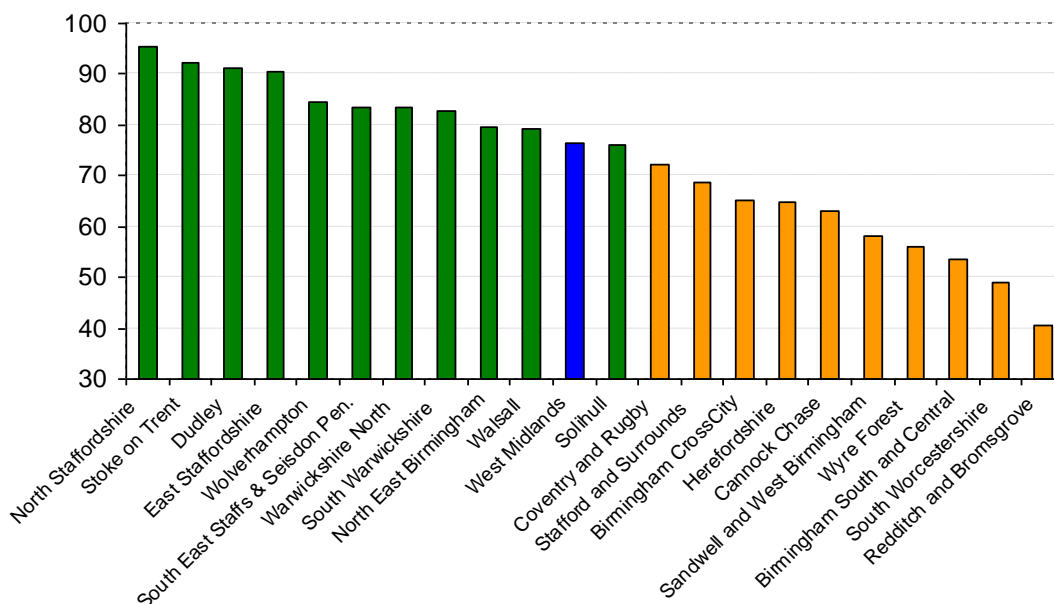
Data Period: July 2009 - January 2011

KPI 2: Continuity of Carer

Clinical Commissioning Group	%	95% CI
West Midlands	79.2	78.7 - 79.6
Birmingham CrossCity	65.1	63.2 - 66.9
Birmingham South and Central	53.7	50.8 - 56.5
Cannock Chase	63.1	61.2 - 65.0
Coventry and Rugby	72.3	71.4 - 73.2
Dudley	91.1	90.2 - 91.9
East Staffordshire	90.6	89.3 - 91.8
Herefordshire	64.7	63.0 - 66.5
North East Birmingham	79.7	76.7 - 82.3
North Staffordshire	95.6	94.7 - 96.3
Redditch and Bromsgrove	40.5	37.1 - 43.9
Sandwell and West Birmingham	58.2	56.9 - 59.5
Shropshire		
Solihull	76.2	72.8 - 79.3
South East Staffs & Seisdon Pen.	83.3	81.8 - 84.7
South Warwickshire	82.6	81.5 - 83.7
South Worcestershire	48.9	46.0 - 51.8
Stafford and Surrounds	68.7	66.8 - 70.5
Stoke on Trent	92.1	91.3 - 92.7
Telford and Wrekin		
Walsall	79.1	78.1 - 80.1
Warwickshire North	83.3	82.0 - 84.5
Wolverhampton	84.6	82.3 - 86.6
Wyre Forest	56.0	49.7 - 62.1

Continuity of Carer

Target Ranges
75+
40-74
<40



Key Performance Indicator 3: ANTENATAL DETECTION OF FETAL GROWTH RESTRICTION

Definition: Number of babies with fetal growth restriction (FGR) at birth who were diagnosed with FGR antenatally. Note: FGR is defined retrospectively as <10th customised centile birthweight.

Target – Long term target of 60%.

Increase in antenatal detection of growth restricted babies detected by 10% per year.

Red	<5%
Amber	5-10%
Green	>10%

Rationale: Fetal growth restriction is the largest contributory factor associated with antepartum stillbirths. Antenatal detection is essential to provide information to the mother about increased risk for the baby, and to initiate additional investigations of fetal well-being as required.

Context: Overall detection rate is a composite of ascertainment in low and high risk pregnancy.

Low risk – detection relies mainly on serial fundal height measurement, plotted on customised GROW charts and appropriate care pathways for referral.

High risk - relies on appropriate protocols and resources to provide serial scanning.

Fetal growth restriction is the single largest risk factor for stillbirth, and antenatal detection halves the risk www.bmj.com/content/346/bmj.f108

Associated evidence:

- Royal College of Obstetricians and Gynaecologists. The Investigation and Management of the small-for-gestational-age Fetus. Guideline No. 31. November 2002. www.rcog.org.uk/index.asp?PageID=531
- Born Unequal: Why we need a progressive pre-birth agenda. The Fabian Society, 2007 Policy Report 61 fabians.org.uk/publications/policy/bamfield-prebirth-07/
- Stillbirth and infant mortality, West Midlands 1997-2005: Trends, Factors, Inequalities. Perinatal Institute.2007. www.pi.nhs.uk/pnm/WM_SB&IMR_2007report.pdf
- Gardosi J and Francis A. Controlled trial of fundal height measurement plotted on customized antenatal growth charts. British Journal of Obstetrics and Gynaecology. 1999. 106 309-317.
- West Midlands Confidential Enquiry into Stillbirths with IUGR www.pi.nhs.uk/rpnm/CE_SB_Final.pdf

Existing Data item for:

- Quarterly Health Improvement report
- NHS West Midlands IfH Project 2C Work stream 4: Building Commissioning Capacity www.ifh.westmidlands.nhs.uk/FileDocs/pdf/323.pdf
- Reducing Perinatal Mortality Project indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm
- Birmingham Infant Mortality indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm

For baseline 2009/10 data for this target:

www.pi.nhs.uk/pnm/maternitydata/Q2_2010-11_Perinatal_KPI_report.pdf

- Data item – ‘Record of *either* SGA/FGR/IUGR in the notes,
or : EFW<10th customised centile on growth chart.

For examples of good practice:

Community Growth Scanning Project - www.pi.nhs.uk/cogs/

NB data collection period too short to allow RAG rating for trend.

Comment: Antenatal detection of the fetus at risk due to growth restriction is still a considerable challenge, and overall rates are poor although improving. The best performing units tend to be the ones which have had the most training, and have implemented the most solid protocols.

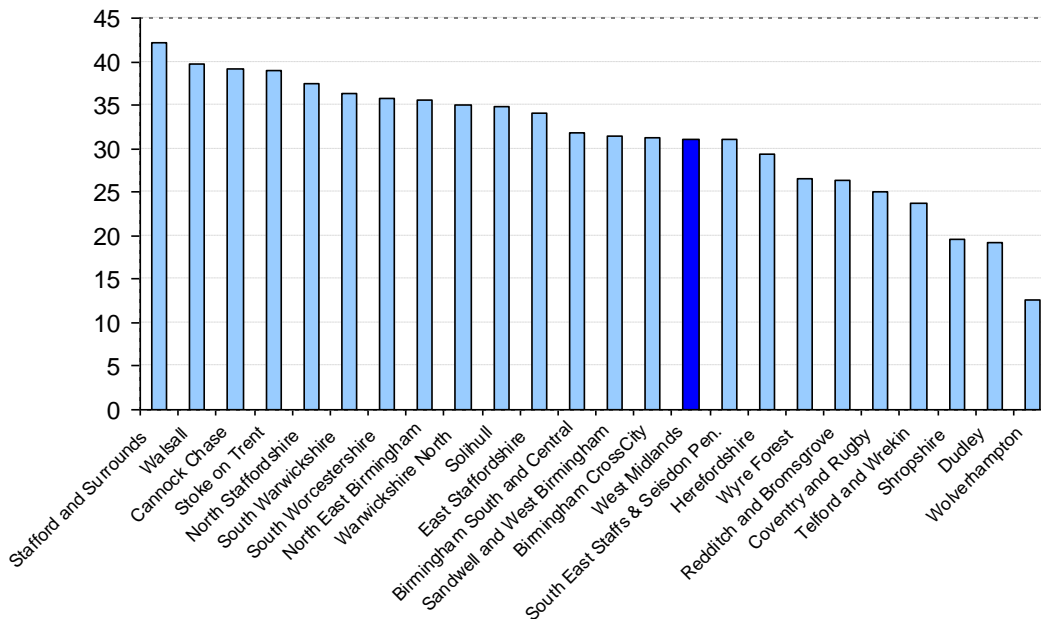
Key Performance Indicators

Data Source: PEER, West Midlands Perinatal Institute
 Data Period: July 2009 - January 2011

KPI 3: Antenatal detection of fetal growth restriction

Clinical Commissioning Group	%	95% CI
West Midlands	31.0	30.2 - 31.8
Birmingham CrossCity	31.2	29.0 - 33.0
Birmingham South and Central	31.8	28.1 - 35.6
Cannock Chase	39.2	34.2 - 44.1
Coventry and Rugby	25.0	22.4 - 27.7
Dudley	19.2	16.5 - 21.8
East Staffordshire	34.1	28.0 - 40.1
Herefordshire	29.4	25.0 - 34.0
North East Birmingham	35.5	29.5 - 41.5
North Staffordshire	37.5	32.5 - 42.4
Redditch and Bromsgrove	26.4	21.4 - 31.3
Sandwell and West Birmingham	31.4	29.2 - 33.6
Shropshire	19.6	14.9 - 24.4
Solihull	34.9	29.5 - 40.3
South East Staffs & Seisdon Pen.	31.0	26.7 - 35.2
South Warwickshire	36.4	32.1 - 40.6
South Worcestershire	35.8	30.8 - 40.9
Stafford and Surrounds	42.1	36.6 - 47.6
Stoke on Trent	38.9	35.6 - 42.1
Telford and Wrekin	23.8	18.3 - 29.3
Walsall	39.8	36.8 - 42.7
Warwickshire North	35.0	30.8 - 39.1
Wolverhampton	12.6	10.1 - 15.1
Wyre Forest	26.6	18.3 - 34.9

Antenatal detection of fetal growth restriction



NB data collection period too short to allow RAG rating for trend.

Key Performance Indicator 4: SMOKING IN PREGNANCY

Definition: Proportion of women smoking at booking
Proportion of women smoking during pregnancy – as ascertained at delivery

Target - Reduce to prevalence of 15%, or 1% reduction per year

Thresholds (smoking at delivery)

Red	≥18%
Amber	15-17.9%
Green	<15%

Rationale: Smoking in pregnancy causes adverse outcomes, including increased risk of miscarriage, fetal growth restriction and perinatal death.

Context: Recent work assessing the effect of smoking on risk of stillbirth found it to be the second strongest risk factor (after FGR without smoking), and strongly linked to FGR.

www.bmj.com/content/346/bmj.f108

Associated Evidence:

- NICE public Health Programme Guidance. Smoking Cessation Services. 2008.
www.nice.org.uk/guidance/index.jsp?action=byID&o=11925
- Review of Health Inequalities - Infant Mortality PSA Target. Department of Health, 2007
www.dh.gov.uk/prod_consum_dh/idcplg?IdcService=GET_FILE&dID=116196&Rendition=Web
- Tackling Health Inequalities: A programme for action - Department of Health 2003
www.dh.gov.uk/prod_consum_dh/idcplg?IdcService=GET_FILE&dID=10311&Rendition=Web

Existing Data item for:

National target:

- Local delivery plan return
- PSA Target 06a: www.connectingforhealth.nhs.uk/dscn/dscn2002/502002.pdf

Regional target:

- Quarterly Health Improvement report
- NHS WM IfH Project 2C Workstream 4: Building Commissioning Capacity
www.ifh.westmidlands.nhs.uk/FileDocs/pdf/323.pdf
- Reducing Perinatal Mortality Project indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm
- Birmingham Infant Mortality indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm

Secondary indicators:

- (i) Number of British Europeans smoking at delivery
- (ii) Number of teenagers smoking at delivery

Comment: Smoking rates vary with the demographics of the population, and indicate the need to provide appropriate smoking cessation services, as it is one of the most avoidable causes of adverse pregnancy outcome

Key Performance Indicators

Data Source: PEER, West Midlands Perinatal Institute

Data Period: July 2009 - January 2011

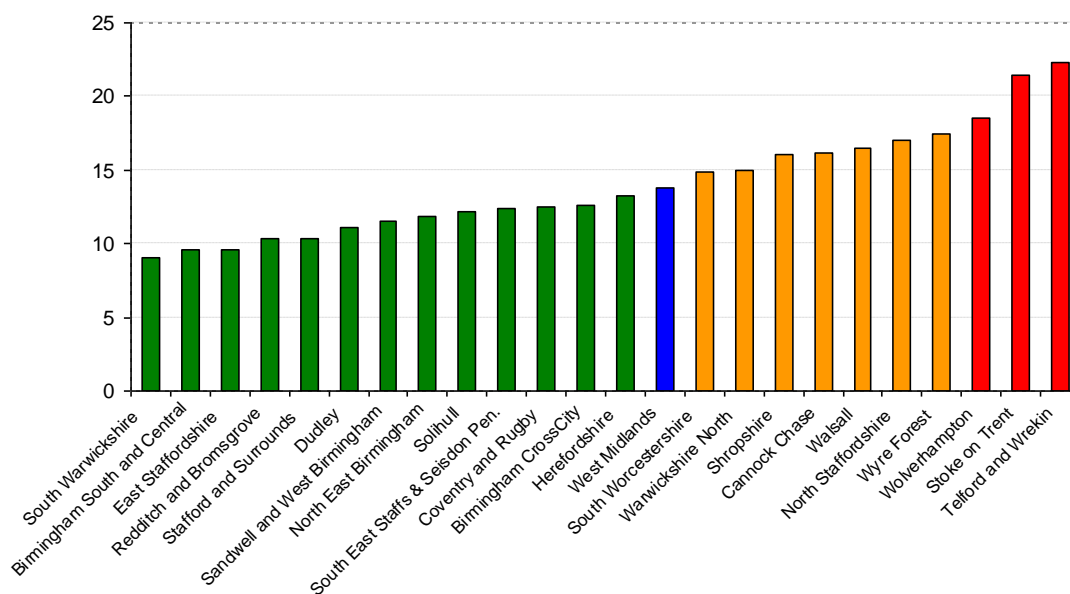
KPI 4a: Smoking at Booking

KPI 4b: Smoking at Delivery

Clinical Commissioning Group	Smoking at booking		Smoking at delivery	
	%	95% CI	%	95% CI
West Midlands	19.1	18.3 - 19.3	13.8	13.6 - 14.0
Birmingham CrossCity	17.7	17.0 - 18.4	12.6	11.9 - 13.3
Birmingham South and Central	12.9	12.0 - 13.8	9.6	8.7 - 10.5
Cannock Chase	22.4	21.2 - 23.7	16.2	15.1 - 17.4
Coventry and Rugby	18.5	17.9 - 19.2	12.5	11.9 - 13.1
Dudley	19.0	18.1 - 19.8	11.1	10.5 - 11.8
East Staffordshire	16.7	15.6 - 18.0	9.6	8.7 - 10.6
Herefordshire	18.9	17.8 - 20.1	13.3	12.2 - 14.4
North East Birmingham	16.9	15.3 - 18.6	11.9	10.4 - 13.6
North Staffordshire	21.2	20.0 - 22.4	17.0	16.0 - 18.2
Redditch and Bromsgrove	15.9	14.5 - 17.4	10.3	9.0 - 11.8
Sandwell and West Birmingham	16.7	16.1 - 17.3	11.5	11.0 - 12.1
Shropshire	18.9	17.3 - 20.6	16.1	14.6 - 17.7
Solihull	17.4	16.1 - 18.9	12.2	10.9 - 13.7
South East Staffs & Seisdon Pen.	18.4	17.3 - 19.5	12.4	11.5 - 13.4
South Warwickshire	12.5	11.8 - 13.3	9.0	8.3 - 9.8
South Worcestershire	17.9	16.6 - 19.2	14.9	13.6 - 16.3
Stafford and Surrounds	14.9	13.8 - 16.1	10.3	9.4 - 11.3
Stoke on Trent	26.0	25.1 - 26.9	21.4	20.6 - 22.3
Telford and Wrekin	26.4	24.3 - 28.6	22.3	20.4 - 24.5
Walsall	23.5	22.8 - 24.4	16.5	15.8 - 17.3
Warwickshire North	22.5	21.4 - 23.6	15.0	14.0 - 16.1
Wolverhampton	21.3	20.1 - 22.5	18.5	17.4 - 19.7
Wyre Forest	22.9	20.4 - 25.7	17.5	15.1 - 20.2

Smoking at delivery

Target Ranges
<15
15-17.9
>=18



Key Performance Indicator 5: BREASTFEEDING INITIATION

Definition: Number of babies that received breast milk within 48 hours of birth
(secondary target – breastfeeding at 6 weeks – not collected on PEER)

Target - Increase in breast feeding initiation rates by 2% per year

Thresholds

Red	<1%
Amber	>1-2%
Green	>2%

Rationale: Breastfeeding protects babies and their mothers from a wide range of illnesses, including infection, sudden infant death syndrome, allergic diseases in babies and breast and ovarian cancer in mothers.

Associated Evidence:

- NICE public Health Programme Guidance. Maternal and Child Nutrition Programme. NICE. Guidance March 2008. www.nice.org.uk/guidance/index.jsp?action=byID&o=11943
- NICE. Postnatal care: Routine postnatal care of women and their babies July 2006. www.nice.org.uk/CG037
- Demott K, Bick D, et al (2006) Clinical Guidelines and Evidence Review for Post Natal Care Of Recently Delivered Women and Their babies. London: National Collaborating Centre for Primary Care and Royal College of General Practitioners.

Existing Data item for:

National target:

- Local delivery plan return
- PSA Target 06b

Regional target:

- Quarterly Health Improvement report
- IfH Project 2C Workstream 4: Building Commissioning Capacity www.ifh.westmidlands.nhs.uk/FileDocs/pdf/323.pdf
- Reducing Perinatal Mortality Project indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm
- Birmingham Infant Mortality indicator: www.pi.nhs.uk/rpnm/rpnmmain.htm

NB data collection period too short to allow RAG rating for trend.

Comment: Wide regional variation in breastfeeding rates is again in part linked to demographics, but also highlights the need for improved performance in this indicator.

Key Performance Indicators

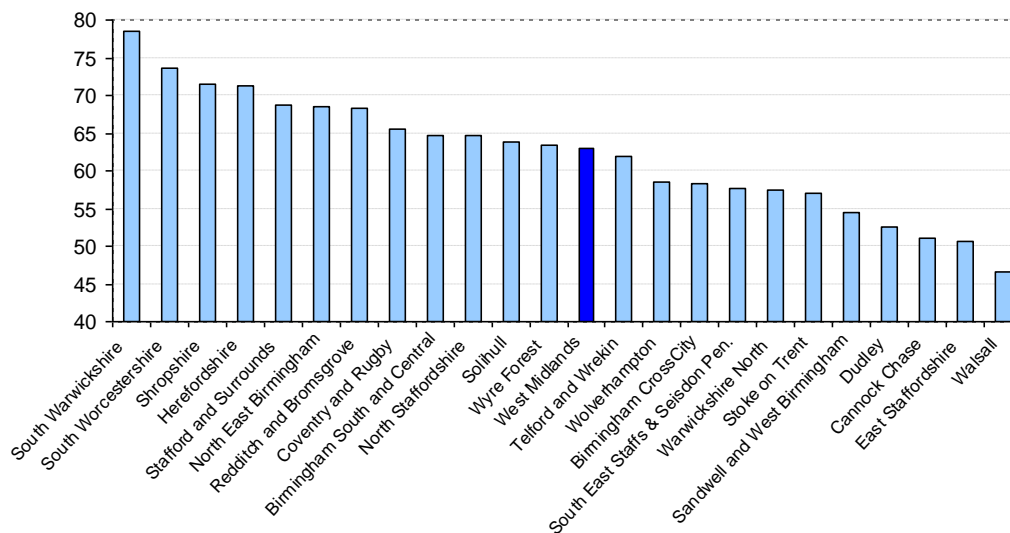
Data Source: PEER, West Midlands Perinatal Institute

Data Period: July 2009 - January 2011

KPI 5: Breastfeeding Initiation < 48 Hrs

Clinical Commissioning Group	%	95% CI
West Midlands	63.0	62.7 - 63.3
Birmingham CrossCity	58.4	57.4 - 59.4
Birmingham South and Central	64.7	63.3 - 66.1
Cannock Chase	51.1	49.6 - 52.7
Coventry and Rugby	65.6	64.7 - 66.5
Dudley	52.5	51.3 - 53.7
East Staffordshire	50.6	48.8 - 52.4
Herefordshire	71.2	69.6 - 72.8
North East Birmingham	68.5	66.2 - 70.8
North Staffordshire	64.7	63.3 - 66.1
Redditch and Bromsgrove	68.3	66.4 - 70.2
Sandwell and West Birmingham	54.5	53.5 - 55.4
Shropshire	71.4	69.5 - 73.3
Solihull	63.9	62.0 - 65.8
South East Staffs & Seisdon Peninsular	57.7	56.2 - 59.2
South Warwickshire	78.5	77.5 - 79.5
South Worcestershire	73.6	71.9 - 75.2
Stafford and Surrounds	68.8	67.3 - 70.3
Stoke on Trent	57.0	55.9 - 58.0
Telford and Wrekin	62.0	59.6 - 64.4
Walsall	46.7	45.7 - 47.6
Warwickshire North	57.5	56.1 - 58.8
Wolverhampton	58.5	57.0 - 59.9
Wyre Forest	63.5	60.1 - 66.7

Breastfeeding Initiation < 48 Hrs



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