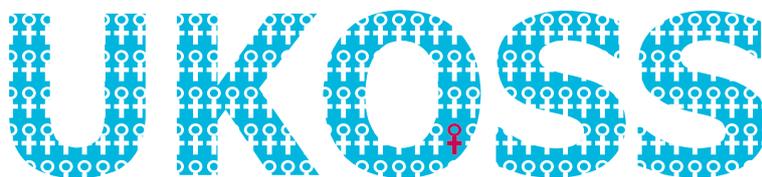




Royal College of  
Obstetricians and  
Gynaecologists



UK Obstetric Surveillance System



National Perinatal  
Epidemiology Unit

## Newsletter 17: April 09

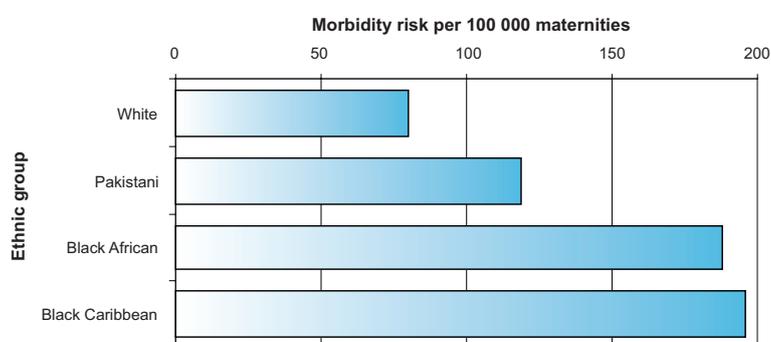
### Ethnic inequalities in severe maternal morbidity

Results from UKOSS published in the BMJ last month show that black Caribbean and black African women have twice as much risk of experiencing severe 'near-miss' maternal morbidity compared to white women. Pakistani women have a one and a half times increased risk. This pattern is very similar to reported ethnic differences in maternal death rates.

This analysis of the first five studies undertaken through UKOSS (acute fatty liver, amniotic fluid embolism, antenatal pulmonary embolism, eclampsia and peripartum hysterectomy) showed an overall estimated risk of severe complications of 89 cases per 100,000 maternities. For white women this risk is around 80 cases per 100,000 maternities, 126 cases for non-white women as a whole, 188 cases for black African woman and 196 for black Caribbean women (Figure).

These differences may be due to the presence of pre-existing maternal medical factors, or to factors related to care during pregnancy, labour and birth, but are unlikely to be due to differences in age, socioeconomic or smoking status, body mass index or parity. This highlights to clinicians and policy-makers the importance of tailored maternity services and improved access to care for ethnic minority women.

The full results are available to download free at: [http://www.bmj.com/cgi/reprint/338/mar03\\_2/b542](http://www.bmj.com/cgi/reprint/338/mar03_2/b542)



**Figure: Risks of severe 'near-miss' maternal morbidity in different ethnic groups**

### Case report summary for current studies to 30/03/09

Disorder	Actual number of reported cases	Data collection forms returned (%)	Number of confirmed cases	Expected number of confirmed cases
Amniotic fluid embolism	87	83 (95)	56	49
Antenatal stroke	47	34 (72)	17	96
Failed Intubation	35	22 (63)	18	60
Malaria	3	0 (NA)	0	16
Multiple Repeat CS	8	3 (38)	2	50
Myocardial infarction	45	41 (91)	21	71
Non-renal solid organ transplant recipients	34	30 (88)	26	43
Pulmonary vascular disease	53	45 (85)	28	26
Renal transplant recipients	101	85 (84)	75	150
Therapies for peripartum haemorrhage	451	346 (77)	242	697

## Thanks to the following hospitals who have returned cards for the last three months:

Aberdeen Maternity Hospital, Aberdeen  
 Airedale General Hospital, Keighley  
 Alexandra Hospital, Redditch  
 Altnagalvin Area Hospital, Londonderry  
 Antrim Hospital, Antrim  
 Ayrshire Maternity Unit, Kilmarnock  
 Barnet General Hospital, Barnet  
 Basildon Hospital, Basildon  
 Bassetlaw District General Hospital, Worksop  
 Bedford Hospital, Bedford  
 Birmingham City Hospital, Birmingham  
 Birmingham Heartlands Hospital, Birmingham  
 Birmingham Women's Hospital, Birmingham  
 Bradford Royal Infirmary, Bradford  
 Bronglais Hospital, Aberystwyth  
 Caithness General Hospital, Wick  
 Calderdale Royal Hospital, Halifax  
 Causeway Hospital, Coleraine  
 Cheltenham General Hospital, Cheltenham  
 Chesterfield & North Derbyshire Royal Hospital, Chesterfield  
 City Hospitals Sunderland NHS Trust, Sunderland  
 Colchester General Hospital, Colchester  
 Conquest Hospital, St Leonards-on-Sea  
 Countess of Chester Hospital, Chester  
 Craigavon Area Hospital, Portadown  
 Cumberland Infirmary, Carlisle  
 Darent Valley Hospital, Dartford  
 Darlington Memorial Hospital, Darlington  
 Derby Hospitals NHS Foundation Trust, Derby  
 Derriford Hospital, Plymouth  
 Dewsbury and District Hospital, Dewsbury  
 Diana Princess of Wales Hospital, Grimsby  
 Dr Gray's Hospital, Elgin  
 Dumfries & Galloway Royal Infirmary, Dumfries  
 Ealing Hospital, London  
 Eastbourne District General Hospital, Eastbourne  
 Epsom General Hospital, Epsom  
 Eme Hospital, Enniskillen  
 Forth Park Hospital, Kirkcaldy  
 Friarage Hospital, Northallerton  
 Frimley Park Hospital, Camberley  
 Furness General Hospital, Barrow-in-Furness  
 George Eliot Hospital, Nuneaton  
 Glan Clwyd District General Hospital, Rhyl  
 Gloucestershire Royal Hospital, Gloucester  
 Good Hope Hospital, Sutton Coldfield  
 Guy's and St Thomas' Hospital, London  
 Harrogate District Hospital, Harrogate  
 Hereford County Hospital, Hereford  
 Hillingdon Hospital, Uxbridge  
 Hinchingsbrooke Hospital, Huntingdon  
 Homerton Hospital, London  
 Hope Hospital, Manchester  
 Horton Hospital, Banbury  
 Hospital of St John and St Elizabeth, London  
 Hull Royal Infirmary, Hull  
 Ipswich Hospital, Ipswich  
 James Cook University Hospital, Middlesbrough  
 Jersey General Hospital, St Helier  
 John Radcliffe Hospital, Oxford  
 Kettering General Hospital, Kettering  
 King George Hospital, Ilford  
 King's Mill Hospital, Sutton in Ashfield  
 Kingston Hospital, Kingston upon Thames  
 Lagan Valley Hospital, Lisburn  
 Leeds General Infirmary, Leeds  
 Leicester Royal Infirmary, Leicester  
 Leighton Hospital, Crewe  
 Lincoln County Hospital, Lincoln  
 Lister Hospital, Stevenage  
 Liverpool Women's Hospital, Liverpool  
 Macclesfield District General Hospital, Macclesfield  
 Maidstone General Hospital, Maidstone  
 Manor Hospital, Walsall  
 Mayday University Hospital, Thornton Heath  
 Medway Maritime Hospital, Gillingham  
 Nevill Hall Hospital, Abergavenny  
 Newham General Hospital, London  
 Ninewells Hospital & Medical School, Dundee  
 Nobles Hospital, Douglas  
 Norfolk & Norwich University Hospital, Norwich  
 North Devon District Hospital, Barnstaple  
 North Manchester General Hospital, Manchester  
 North Middlesex Hospital, London  
 Northwick Park Hospital, Harrow  
 Pembury Hospital, Tunbridge Wells  
 Peterborough Maternity Unit, Peterborough  
 Pilgrim Hospital, Boston  
 Pontefract General Infirmary, Pontefract  
 Prince Charles Hospital, Methyr Tydfil  
 Princess Anne Hospital, Southampton  
 Princess of Wales Hospital, Bridgend  
 Princess Royal University Hospital, Orpington  
 Queen Charlotte's and Chelsea Hospital, London  
 Queen Elizabeth Hospital, Kings Lynn  
 Queen Elizabeth the Queen Mother Hospital, Margate  
 Queen Mary's Hospital, Sidcup  
 Queen Mother's Hospital, Glasgow  
 Queen's Hospital, Burton upon Trent  
 Rochdale Infirmary, Rochdale  
 Rosie Maternity Hospital, Cambridge  
 Rotherham District General Hospital, Rotherham  
 Royal Albert Edward Infirmary, Wigan  
 Royal Alexandra Hospital, Paisley  
 Royal Blackburn Hospital, Blackburn  
 Royal Cornwall Hospital, Truro  
 Royal Devon & Exeter Hospital, Exeter  
 Royal Free Hospital, London  
 Royal Gwent Hospital, Newport  
 Royal Hampshire County Hospital, Winchester  
 Royal Jubilee Maternity Service, Belfast  
 Royal Lancaster Infirmary, Lancaster  
 Royal Oldham Hospital, Oldham  
 Royal Shrewsbury Hospital, Shrewsbury  
 Royal United Hospital, Bath  
 Royal Victoria Infirmary, Newcastle-upon-Tyne  
 Scarborough Hospital, Scarborough  
 Scunthorpe General Hospital, Scunthorpe  
 Simpson Centre for Reproductive Health, Edinburgh  
 Singleton Hospital, Swansea  
 Solihull Hospital, Solihull  
 South Tyneside District Hospital, South Shields  
 Southend Hospital, Westcliff-on-Sea  
 Southern General Hospital, Glasgow  
 Southmead Hospital, Bristol  
 Southport & Ormskirk Hospital NHS Trust, Ormskirk  
 St James's University Hospital, Leeds  
 St John's Unit at Howden, Livingston  
 St Mary's Hospital, London  
 St Mary's Hospital, Newport  
 St Mary's Hospital, Portsmouth  
 St Michael's Hospital, Bristol  
 St Peter's Hospital, Chertsey  
 St Richard's Hospital, Chichester  
 Stepping Hill Hospital, Stockport  
 Stirling Royal Infirmary, Stirling  
 Tameside General Hospital, Ashton-under-Lyne  
 Taunton and Somerset Hospital, Taunton  
 The Great Western Hospital, Swindon  
 Torbay Hospital, Torquay  
 Trafford General Hospital, Manchester  
 University Hospital Lewisham, London  
 University Hospital of Coventry & Warwickshire, Coventry  
 University Hospital of North Staffordshire, Stoke on Trent  
 University Hospital of North Tees, Stockton-on-Tees  
 University Hospital of Wales, Cardiff  
 Victoria Hospital, Blackpool  
 Wansbeck General Hospital, Ashington  
 West Cumberland Hospital, Whitehaven  
 West Middlesex University Hospital, Isleworth  
 West Suffolk Hospital, Bury St Edmunds  
 West Wales General Hospital, Carmarthen  
 Western Isles Hospital, Stornaway  
 Whiston Hospital, Prescot  
 Whittington Hospital, London  
 Wishaw General Hospital, Wishaw  
 Withybush Hospital, Haverfordwest  
 Worcestershire Royal Hospital, Worcester  
 Wycombe General Hospital, High Wycombe  
 Wythenshawe Hospital, Manchester  
 York Hospital, York  
 Ysbyty Gwynedd District General Hospital, Bangor  
 Arrowe Park Hospital, Wirral  
 Barnet and Chase Farm Hospitals NHS Trust, Enfield  
 Borders General Hospital, Melrose  
 Burnley General Hospital, Burnley  
 Daisy Hill Hospital, Newry  
 Doncaster Royal Infirmary, Doncaster  
 Dorset County Hospital, Dorchester  
 East Surrey Hospital, Redhill  
 Fairfield General Hospital, Bury  
 James Paget Hospital, Great Yarmouth  
 Mater Infirmorum Hospital, Belfast  
 New Cross Hospital, Wolverhampton  
 North Hampshire Hospital, Basingstoke  
 Northampton General Hospital, Northampton  
 Nottingham City Hospital, Nottingham  
 Nottingham University Hospitals NHS Trust, Nottingham  
 Poole Hospital, Poole  
 Princess Alexandra Hospital, Harlow  
 Princess Elizabeth Hospital, St Martins  
 Princess Royal Hospital, Haywards Heath  
 Queen Elizabeth Hospital, Gateshead  
 Queen Elizabeth II Hospital, Welwyn Garden City  
 Raigmore Hospital, Inverness  
 Royal Berkshire Hospital, Reading  
 Royal Bolton Hospital, Bolton  
 Royal Glamorgan Hospital, Llantrisant  
 Royal Surrey County Hospital, Guildford  
 Salisbury District Hospital, Salisbury  
 Sandwell District General Hospital, West Bromwich  
 St George's Hospital, London  
 St John's Hospital, Chelmsford  
 Staffordshire General Hospital, Stafford  
 The Portland Hospital, London  
 Ulster Hospital, Belfast  
 University College Hospital, London  
 University Hospital of North Durham, Durham  
 Warrington Hospital, Warrington  
 Warwick Hospital, Warwick  
 Wexham Park Hospital, Slough  
 Whipps Cross University Trust Hospital, London  
 William Harvey Hospital, Ashford  
 Worthing Hospital, Worthing  
 Wrexham Maelor Hospital, Wrexham  
 Yeovil Women's Hospital, Yeovil  
 Barnsley District General Hospital, Barnsley  
 Chelsea & Westminster Hospital, London  
 King's College Hospital, London  
 Leicester General Hospital, Leicester  
 Milton Keynes General Hospital, Milton Keynes  
 Princess Royal Maternity Hospital, Glasgow  
 Queen Elizabeth Hospital, London  
 Queen's Hospital, Romford  
 Royal Sussex County Hospital, Brighton  
 Russells Hall Hospital, Dudley  
 Stoke Mandeville Hospital, Aylesbury  
 The Jessop Wing, Sheffield  
 Watford General Hospital, Watford

Returned all three cards. Returned two cards. Returned one card.

# New Studies

## Uterine Rupture

### Background

True uterine rupture is a catastrophic event with significant associated maternal and fetal morbidity and mortality. In the developed world it most commonly occurs in women who have previously delivered by caesarean section<sup>1</sup>. This observation has led to debate about the optimal management of labour and delivery in women who have delivered by caesarean section in previous pregnancies. Two recent systematic reviews have attempted to quantify the incidence of uterine rupture<sup>1,2</sup>. Both these reviews identified a number of deficiencies in the few existing studies in developed countries and suggested that a prospective national study of uterine rupture would offer the best opportunity to guide preventive strategies.

In addition to difficulties in quantifying the incidence of uterine rupture, Guise et al<sup>2</sup> noted that existing observational studies were insufficient to answer additional questions about the risks of rupture associated with induction and augmentation of labour. This prospective, descriptive study will address these questions and quantify the national incidence of uterine rupture in the UK.

### Case definition

Any woman in the UK identified as having a uterine rupture using the following definition<sup>2,3</sup>:

A complete separation of the wall of the pregnant uterus, with or without expulsion of the fetus, involving rupture of membranes at the site of the uterine rupture or extension into uterine muscle separate from any previous scar, and endangering the life of the mother or fetus.

Excluded: any asymptomatic palpable or visualised defect (for example dehiscence noted incidentally at caesarean delivery).

### Funding

Wellbeing of Women

### Investigators

Marian Knight, Jennifer Kurinczuk, Peter Brocklehurst, NPEU

Zarko Alfirevic, University of Liverpool

### References

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2. Guise JM, et al. BMJ 2004; 329(7456):19-25.
3. Cowan RK, et al. Obstet Gynecol 1994; 83(6):933-6.

## Congenital Diaphragmatic Hernia

### Background

Congenital diaphragmatic hernia (CDH) is a musculoskeletal defect of the diaphragm which occurs during fetal development. It affects between 1 in 2,000 to 1 in 4,000 births in the UK<sup>1</sup>. Available data are limited but indicate that a significant proportion of surviving infants experience consequent disability<sup>2-4</sup>. However, CDH is a rare condition and thus this information largely comes from case series collected over long periods of time reported from referral centres rather than population-based data which would give the full up-to-date picture.

The aim of this study is to combine the use of UKOSS, paediatric surgical and congenital anomaly reporting systems to assess the diagnosed and birth incidence of CDH in the UK and to describe the management and outcome of affected pregnancies.

### Case definition

Any pregnant woman with a fetus affected by a congenital diaphragmatic hernia.

### Funding

Action Medical Research

### Investigators

Jennifer Kurinczuk, Marian Knight, Peter Brocklehurst, NPEU

Mr David Howe, University of Southampton

Dr Judith Rankin, University of Newcastle

Professor Elizabeth Draper, University of Leicester

Prof Paul Losty, University of Liverpool

### References

1. EUROCAT website: <http://www.bio-medical.co.uk/eurocatlive/search2.cgi>.
2. Davis PJ, et al. J Pediatr 2004;144:309-15.
3. American Academy of Pediatrics. Section on Surgery and the Committee on Fetus and Newborn. Pediatrics 2008;121:627-32.
4. Smith NP, et al. Arch Dis Child 2005;90:426-28.

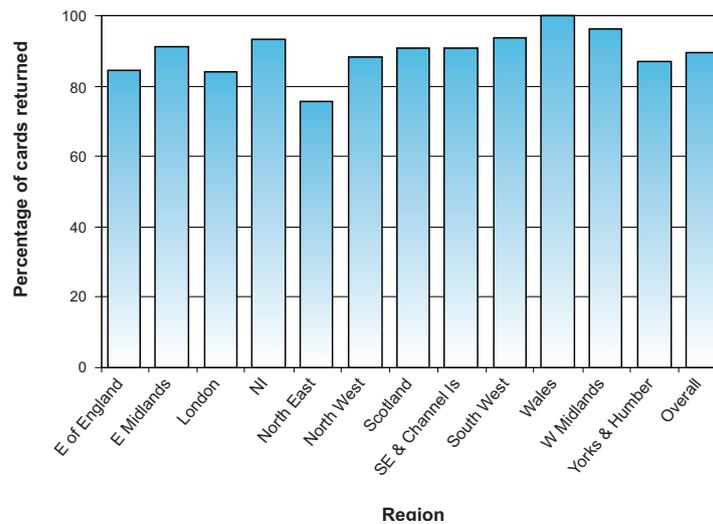
Wellbeing of Women

Charity Registration No: 239281

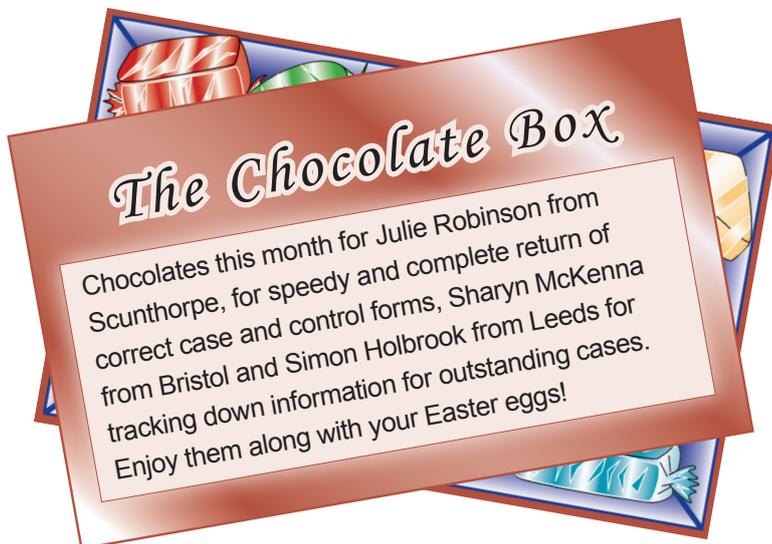
 **action** medical research  
for children, for life

## UKOSS Regional Card Return Rates

### Card return rates November 2008 - January 2009



Congratulations Wales for returning 100% of cards for the whole three months! West Midlands and Northern Ireland are not far behind and more than 50% of areas have returned over 90% of their cards. Thank you all! We think there may be a few cards lost in post boxes in the North East – please can you check your hospital against the list on page 3 and if we are missing any cards, please let us know.



### Update on UKOSS results – can we help?

If anyone would like a further update on UKOSS results we are happy to come and talk at regional meetings; we also have some results available in the form of powerpoint slides if you would like to present them yourselves locally. Please email us via [ukoss@npeu.ox.ac.uk](mailto:ukoss@npeu.ox.ac.uk) if you would like further details.

We also aim to put all published abstracts and papers on our website at [www.npeu.ox.ac.uk/ukoss](http://www.npeu.ox.ac.uk/ukoss). If you have any other suggestions as to how we could help you by improving communication of results please let us know.

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