

Perinatal Mortality

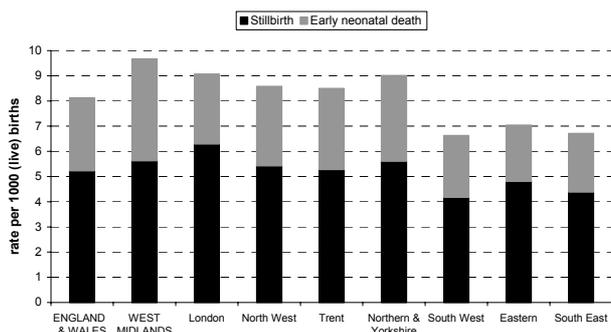
Summary of West Midlands Regional Vital Statistics 2001

(More detailed perinatal mortality trend data are presented in tables and histogrammes on www.wmpi.net/pnm/trends)

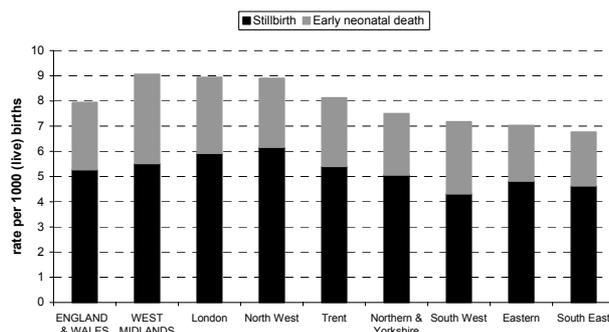
The **number of births** in the West Midlands has fallen by 690 from 61,845 to 61,155, a 1.1% reduction on the previous year. This compares with a 1.6% drop in England & Wales.

The **perinatal mortality rate** in the West Midlands in 2001 was 9.0/1000 births (553 cases), which is lower than in 2000 (9.7) but still represents the highest rate of all Health Regions. For England & Wales, the rate was 7.9 in 2001 (8.1 in 2000). The figures below show the perinatal mortality rates for all Regions for 2000 and 2001, respectively.

Mortality Rates 2000 by Region

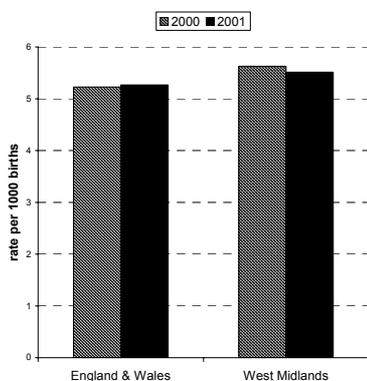


Mortality Rates 2001 by Region

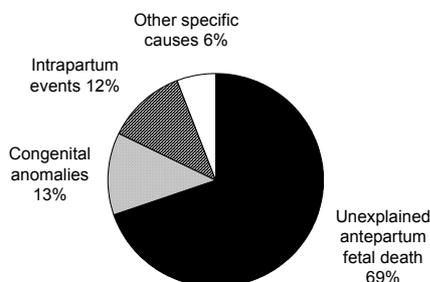


The **stillbirth rate** for 2001 was 5.5/1000 births (337 cases) in the West Midlands. This is similar to the rate in 2000 (5.6) and exceeds that of England & Wales, which was 5.3/1000 births (5.2 in 2000). Analysis of cause of death by the standard Wigglesworth classification, using regional Rapid Report Forms (RRFs), shows that the largest component is again 'unexplained'. This category constituted 68% of stillbirths in 2001, vs 69% in 2000 (see pie charts below).

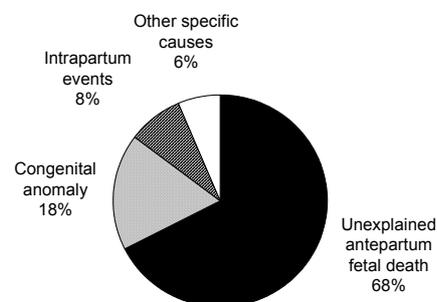
Stillbirth Rates



West Midlands Stillbirths 2000 Wigglesworth Cause of Death

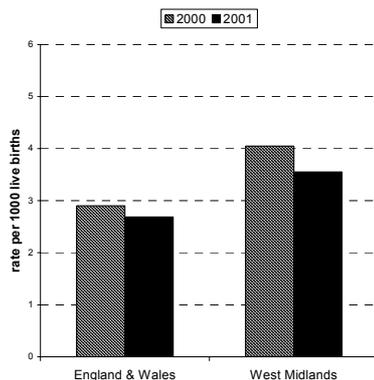


West Midlands Stillbirths 2001 Wigglesworth Cause of Death

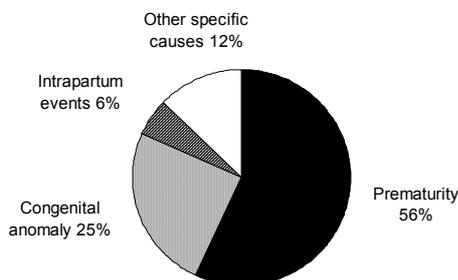


The **early neonatal death rate** for the West Midlands in 2001 was 3.6/1000 live births. This is lower than the rate in 2000 (4.0) but remains higher than that for England & Wales (2.7 in 2001 and 2.9 in 2000). According to our RRFs, this drop was associated with significantly fewer deaths due to 'prematurity': 103 cases in 2001 vs 143 in 2000 (p<0.05). Thus the proportion of early neonatal deaths associated with prematurity fell to 46% in 2001, from 56% in 2000 (see pie charts below). This reduction was not associated with any compensatory rise in late neonatal death rates (0.91/1000 in 2001 vs 0.94/1000 in 2000).

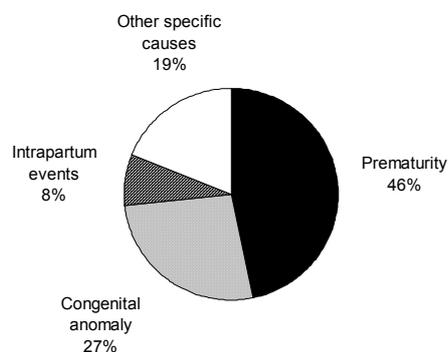
Early Neonatal Mortality Rates



West Midlands Early Neonatal Deaths 2000 Wigglesworth Cause of Death



West Midlands Early Neonatal Deaths 2001 Wigglesworth Cause of Death



Actions by WMPI aimed at reducing Perinatal Mortality in the West Midlands



The Perinatal Institute is actively engaged in identifying avoidable causes of perinatal mortality and implementing strategies for prevention. The following analysis relates to **VS1 2001** data and follows the headings used in last year's summary, which is archived on www.wmpi.net/pnm/vs1.htm.

- 1. Congenital anomalies:** There was a slight increase in stillbirths and early neonatal deaths associated with congenital anomalies (n=120 in 2001 vs 107 in 2000). Screening for anomalies is an essential part of antenatal care to increase maternal choice, but our surveys have shown that there is a wide variation in the standard of service in this region, as elsewhere. Despite the lack of ring-fenced monies, Antenatal Screening Co-ordinators have been appointed in most WM maternity units over the last 12 months, and the Institute is engaged in their training and the regional implementation of the National Screening Committee's strategy.
- 2. 'Unexplained' antepartum deaths:** This is again the single largest category of perinatal mortality, accounting for 68 % of stillbirths in the West Midlands. The Wigglesworth classification is over 20 years old and in urgent need of updating. The Perinatal Institute has developed a new stillbirth classification, which determines the Relevant Condition at Death (ReCoDe: www.wmpi.net/recode). Application of this method to 2001 data shows that 62% of all West Midlands cases in the 'unexplained' category were in fact severely growth restricted at the time of demise. Using ReCoDe leaves only 14% of all stillbirths unclassified. The majority of antepartum deaths associated with fetal growth restriction occur at gestations where the fetus would be mature enough to do well after induced delivery, if only the slow intrauterine growth was suspected and diagnosed in time (see graphs on www.wmpi.net/pnm/stillbirths)

The Institute is working with maternity units to introduce region-wide fetal growth screening. The 'package' includes

- installation of 'GROW', our award winning customised growth chart software (www.gestation.net/grow)
- free provision, where needed, of a PC and printer to produce charts
- local tutorials by WMPI staff on use of software, fundal height measurement, and evidence based care pathways.

- 3. Intrapartum related deaths** have been falling nationally and in the West Midlands, following confidential enquiries which highlighted the high frequency of substandard care and the need for training in the interpretation of cardiocytographs (CTGs) during labour. Many trusts are using our free CTG Tutor software (www.perinatal.org.uk/ctg) or have acquired commercial CTG software. They have also established regular training sessions in fetal monitoring and obstetric emergencies, and the Institute has a rolling programme of multidisciplinary local and regional intrapartum surveillance workshops. The various efforts appears to be having an effect: deaths in this category have dropped in 2001 to the lowest ever recorded in this region: 45 (0.74/1000), from 57 (0.92/1000) in 2000 and 64 (1.00/1000) in 1999.

- 4. Neonatal mortality:** The fall of neonatal deaths associated with prematurity follows the focus on neonatal intensive care by the CESDI Project 27/28 confidential enquiry. Early last year we disseminated preliminary regional findings, and worked with the WM Neonatal Standards Group to encourage the adoption and implementation of clear guidelines in early fluid volume management. Protocols have been rapidly implemented in all West Midlands units. The VS1 figures show a statistically significant fall in early neonatal deaths last year, resulting in the lowest rate since 1993, when data collection using current definitions had commenced. The reduction is most marked in the early preterm period: for example, between 23 and 28 weeks there were 77 deaths in 2001, compared to 109 during 2000, representing a 29.4% drop.

- 5. Denominator data:** The underlying factors responsible for the high perinatal mortality rates in the West Midlands can only be understood if we have good data on all pregnancies and births, and on all babies requiring neonatal intensive care. The regional Specialist Services Agency is supporting the Perinatal Institute's initiative to develop a web based Maternal and Neonatal Electronic Recording System (MANNERS) which will soon be freely available to all units in the region. The program will link in with existing computer systems and use agreed core datasets to facilitate local unit reports and anonymised regional data analysis. It has already achieved NN4B functionality and is currently undergoing field trials. Further details about the project, the proposed core datasets and definitions, and a demonstration version of the software can be accessed via www.wmpi.net/manners.

