

Report on
PERINATAL STATISTICS
for 2001

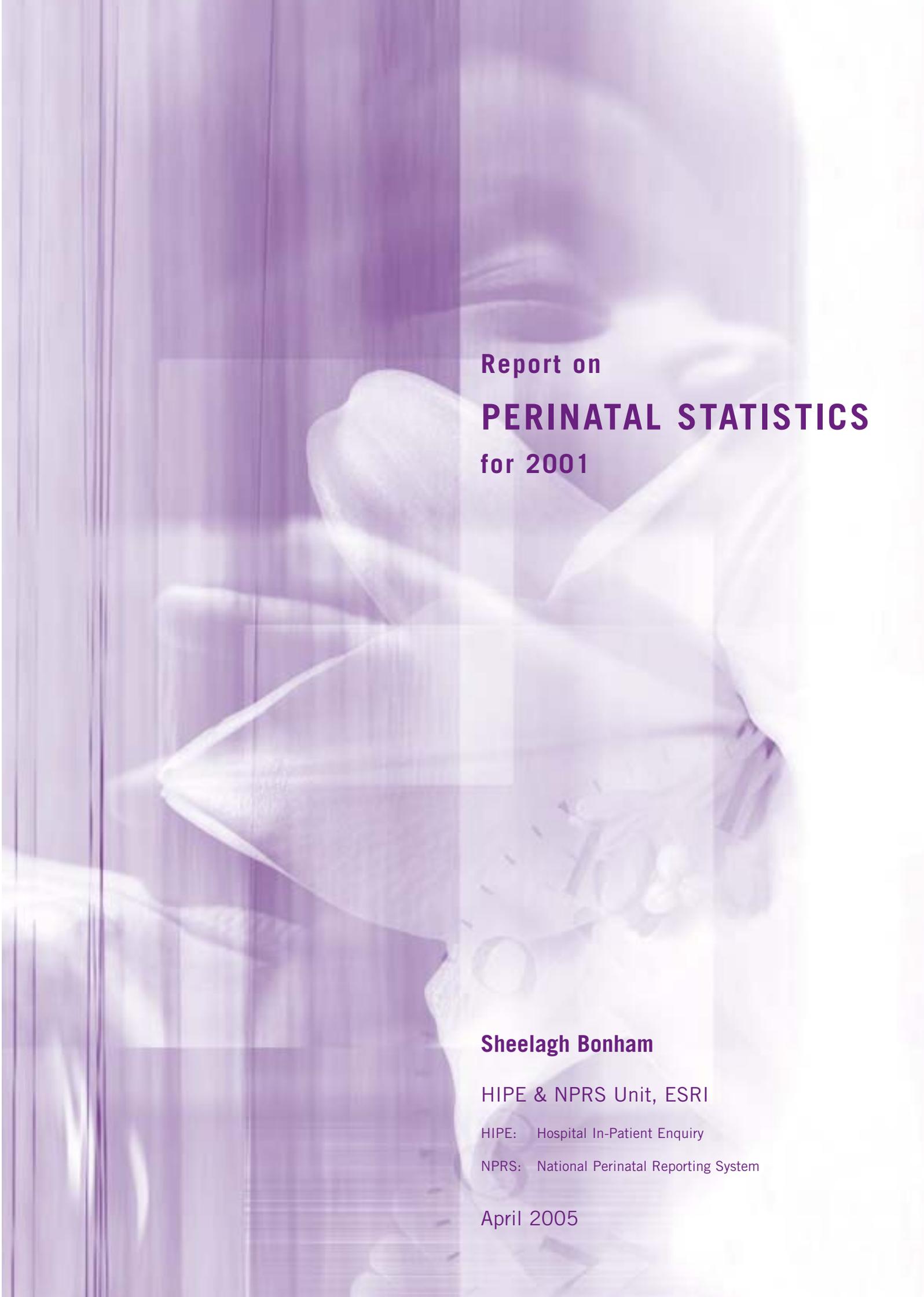
HIPE & NPRS Unit, ESRI

HIPE: Hospital In-Patient Enquiry

NPRS: National Perinatal Reporting System

April 2005





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Sheelagh Bonham

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Sadly, our friend and colleague, Anne Clifton, passed away in December 2004. Anne was Manager of the HIPE & NPRS Unit since it was established and oversaw the move of the NPRS from the Department of Health and Children to the ESRI in 1999. Since then, Anne worked tirelessly towards the improvement of the operation of the NPRS. Her enthusiasm and commitment to the development of this system were a great source of motivation for colleagues working on all aspects of the NPRS. As we mourn Anne's passing, we are grateful for her dedication to the work of the HIPE & NPRS which has been an essential force in the development of these information systems.

Acknowledgements

The collection and analysis of national perinatal data is a large undertaking and the compilation of an accurate and comprehensive data base on a timely basis depends on the co-operation and assistance of many people. Principal among these are the staff of the maternity hospitals and units as well as the many independent midwives involved in practice. I would like to express my sincere appreciation to all who contribute to the accurate recording and timely notification of statistical information for all births nationally.

Information on just over 58,000 births was analysed for this report. For each of these records additional information, apart from that required to register each birth, had to be collected in each hospital and by each independent midwife. This information was compiled and validated by the National Perinatal Reporting System (NPRS) within the HIPE & NPRS Unit at The Economic and Social Research Institute (ESRI) to create a national data base from which this report was produced.

In addition to funding the work of the HIPE & NPRS Unit at the ESRI, the Department of Health and Children continues to provide essential support for the operation and development of the NPRS at the ESRI since 1999. We would like to acknowledge, in particular, the advice and assistance provided by Hugh Magee and Ciara O'Shea in the production of this perinatal report, which relates to data for 2001.

The production of this report has been a team effort. In particular, I would like to thank Kate McMenamin, Natalie Wall and Róisín Coffey who have all worked directly on the collection and analysis of the data presented in this report and Professor Miriam Wiley for assistance with finalising the report for publication.

Many thanks to our ESRI colleagues Deirdre Whitaker and Pat Hopkins for the assistance provided in the preparation of this report for printing.

We hope that the production of this report by the ESRI will allow national statistics on perinatal events to be observed over time. This report highlights the richness of the resource offered by high quality, timely and accurate data for research and evaluation of perinatal events, in particular, and health and health care services at the population level.

Sheelagh Bonham

NPRS Manager, ESRI

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Executive Summary

The principal aim of the National Perinatal Reporting System (NPRS) is the provision of national statistics on perinatal events. Since 1999, The Economic and Social Research Institute (ESRI) has been contracted by the Department of Health and Children to oversee the collection, processing, management and reporting of data submitted to the NPRS. In this report, data on pregnancy outcomes, with particular reference to perinatal mortality and important aspects of perinatal care, are presented for 2001. In addition, descriptive social and biological characteristics of mothers giving birth and babies born in 2001 are recorded.

In 2001, 58,261 births were notified to the National Perinatal Reporting System, an increase of 5.6 per cent since 2000 and 13.9 per cent since 1992. Of these, 339 were stillbirths giving a stillbirth rate of 5.8 per 1,000 live births and stillbirths in 2001. This is an increase of 0.2 per 1,000 since 2000 but represents an overall decrease of 1.7 per cent over the previous decade. There were 160 early neonatal deaths resulting in an early neonatal death rate of 2.8 per 1,000 live births in 2001. This represents a decrease of 0.4 per 1,000 since 2000. The overall rate of early neonatal deaths from 1992 to 2001 has decreased by 26.3 per cent. The perinatal mortality rate was 8.6 per 1,000 live and still births in 2001, a decrease of 2.3 per cent from 2000. The overall perinatal mortality rate has decreased by 10.4 per cent over the decade 1992 to 2001.

The average birthweight of babies born in 2001 is estimated at 3,477g, a very slight decrease from 2000 and just less than 1 per cent lower than that estimated in 1992 (3,502g). Average gestational age remains constant compared to 2000 at 39.5 weeks in 2001 and is 1.9 per cent lower than the recorded average gestational age at delivery of 40.2 weeks in 1992. Low birthweight babies (weighing less than 2,500g) represented 5.2 per cent of all births in 2001, which is 0.3 per cent higher than in 2000 (4.9 per cent), but 1 per cent higher than the figure for 1992. Between 1992 and 2001 the proportion of low birthweight babies has increased by 25.2 per cent. The twinning rate for 2001 is 15.3 per 1,000 maternities, and comprised 878 twin births, 23 triplet births, 1 quadruplet birth and 1 quintuplet birth.

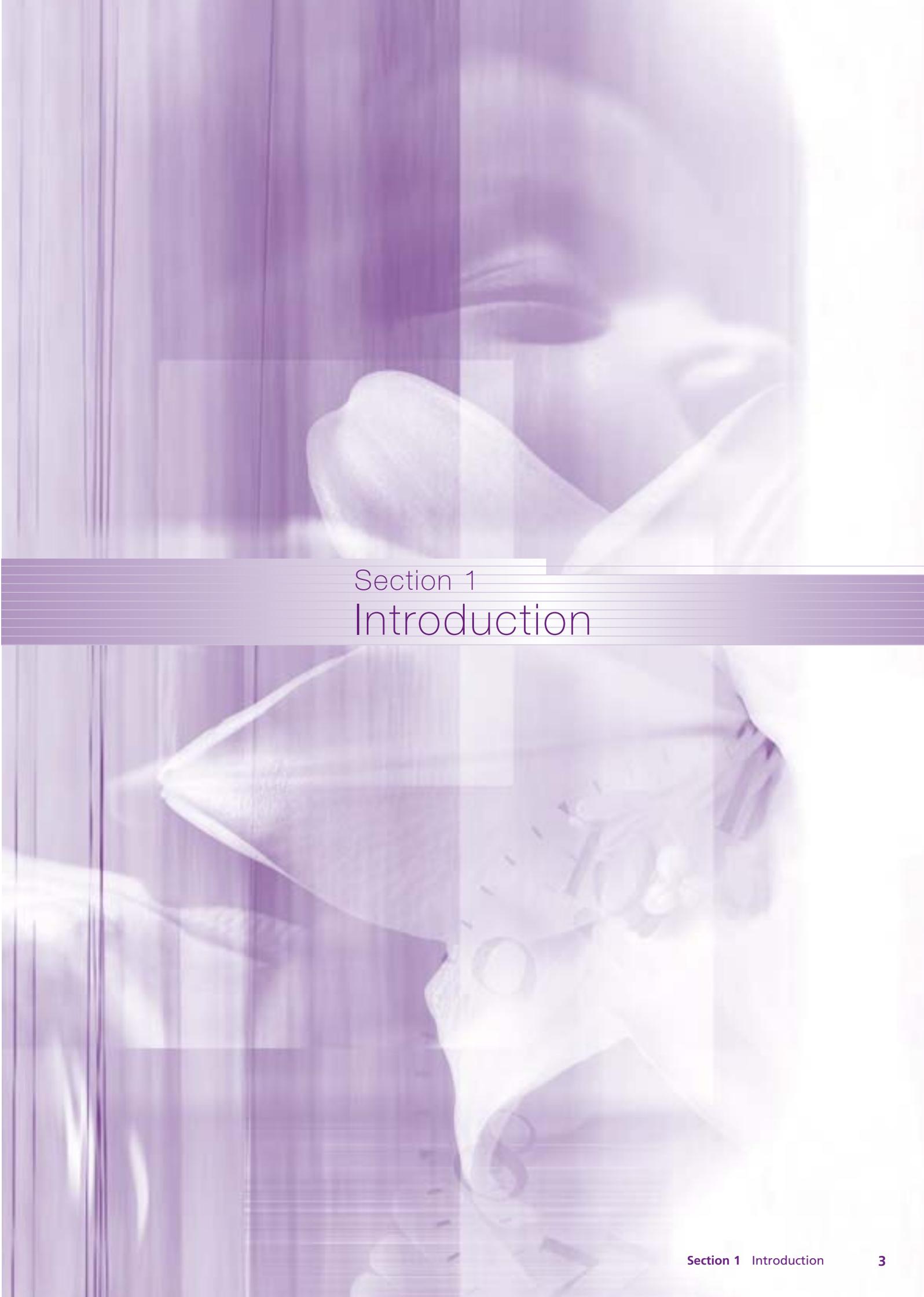
As in 2000, single mothers again accounted for just over 30 per cent of all women giving birth in 2001, which represents an increase of 82.7 per cent in the rate of 16.5 per cent estimated in 1992. The average age of all mothers in 2001 remains the same as 2000 at 30 years. The average age of single mothers in 2001 is 25 years. Average maternal parity at 1.1 in 2001 also remains unchanged from 2000, down from 1.4 in 1992. This represents an overall decline of 21.9 per cent from 1992 to 2001. The trend in the breastfeeding rate continues to be upward at 39.1 per cent in 2001 compared to 38.4 per cent in 2000.

2001 saw an increase in the number of home births attended by independent domiciliary midwives compared to 2000. In 2001 there were 245 such births while in 2000 there were 216, representing an increase of 13.4 per cent for 2001. In 1992 there were 201 independent domiciliary midwife births, therefore over the period from 1992 to 2001 there was an overall increase of 21.9 per cent.

Delivery by caesarean section increased again for 2001, although only marginally from 21.3 per cent of all births in 2000 to 22.0 per cent in 2001. The rate of caesarean section has now increased by 80.8 per cent over the decade from 12.2 per cent in 1992. While the rates of caesarean section are different for singleton and multiple births, the rate of the change over the decade 1992 to 2001 is now relatively stable with an increase of 78.7 per cent for singleton births and an increase of 77.6 per cent for multiple births. In 2001 the percentage of singleton births delivered by caesarean section was 21.1 per cent while the percentage of multiple births delivered by caesarean section was 52.7 per cent.

Average lengths of stay for both mother and infant continued to decline in 2001. Infant's length of stay has decreased from an average of 4.54 days in 1992 to 4.12 days in 2001 while mother's length of stay has declined from 5.12 days in 1992 to 4.38 days in 2001.

The decline in the percentage of early neonatal deaths undergoing post-mortem examinations continued in 2001. This rate, 33.6 per cent, has declined by 14.9 per cent between 2000 and 2001 alone. Over the past decade, the overall rate for post-mortems has decreased by 54.5 per cent from the 1992 rate of 73.8 per cent.



Section 1
Introduction

Section 1 Introduction

Aims

This report of the National Perinatal Reporting System (NPRS) has as its principal aim the provision of national statistics on perinatal events for the year 2001. More specifically, the report aims to describe the fundamental social and biological characteristics of mothers and their babies, to report on pregnancy outcomes with particular reference to perinatal mortality, and to highlight important aspects of perinatal care. Although great strides have been made in reducing infant and perinatal mortality during the past twenty years, the perinatal period continues to be a time of relatively high mortality. Set in this context, the importance of monitoring variables related to perinatal health becomes evident.

This report presents what might be considered a minimum national data set and is intended to serve as a foundation for the development of basic time series analyses and to allow for the possible addition of further variables and more extensive analysis in future years. In mid-2003 the birth notification form was revised to facilitate a number of new fields that were required by the General Register Office (part 1) for birth registrations. These changes have resulted in the collection of two new variables, nationality and country of residence for both the mother and father, by the NPRS. These variables will be reported in the national statistics from 2004. It is hoped that the publication of the data reported to the NPRS will stimulate a wider interest in research in the area of perinatal epidemiology and promote a general recognition of the importance of having an accurate and complete perinatal reporting system.

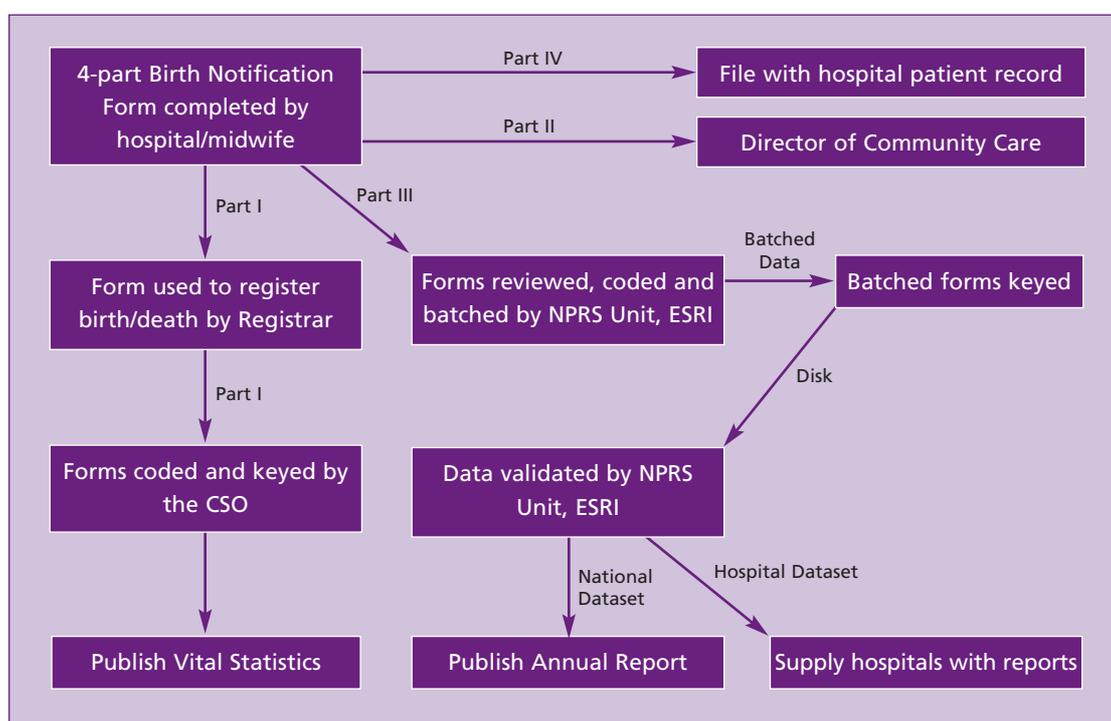
Development of the Perinatal Reporting System

The need to rationalise data collection systems on childbirth became increasingly evident during the 1970s. Prior to the current system, hospitals used a standard form for the registration of live births; a second form completed by the hospital provided statistical information on those births to the Central Statistics Office (CSO); a third form was employed to notify stillbirths to health board(s) and to the CSO; and a variety of non-standard forms were in use to provide for the notification of births to the appropriate health board authorities as soon as possible after the birth. The decision was taken to devise an integrated system to provide, on one form, for the registration and notification of births and for the informational requirements of all those involved in perinatal care, including the provision of basic perinatal statistics for research and planning purposes. A four-part form was designed and printed on self-copying paper, and pilot tests were carried out to ascertain the feasibility of the scheme. The next step involved the gradual extension of the scheme across the country and the parallel development of systems for data collection, computerisation and reporting. In March 1981, a Steering Committee was set up to supervise the extension of the scheme into a comprehensive national system. On the committee were representatives from the Institute of Obstetricians and Gynaecologists, the Irish Perinatal Society, the health boards, the Medico-Social Research Board, maternity hospitals, the Central Statistics Office, the Central Computing Service, and the Department of Health. By 1982, the Perinatal Reporting System covered approximately 64 per cent of all births; the first report, which referred to 1984, had 94 per cent coverage; and national coverage has been complete since 1985. In June 1999, The Economic and Social Research Institute was contracted by the Department of Health and Children to oversee the collection and processing of data required by the Perinatal Reporting System. See Appendix A for a copy of Part 3 of the four-part form. The ESRI has primary responsibility for the collection, processing and reporting of data from 1999 onwards.

Data Collection

Births are registered and notified on a standard four-part form. The top copy of the form is sent by the hospital to the Registrar of Births and serves as the official document of registration. This copy is subsequently forwarded to the Central Statistics Office for use in the production of quarterly and annual reports on vital statistics. The second part of the form containing additional information on the health of the mother and the infant and on the care received goes to the Director of Community Care and Medical Officer of Health in the mother's area of residence. It serves the dual purpose of notifying the local medical and nursing services that have responsibility for the postnatal care of the mother and child and of providing the basis for health records used by the health boards. The third part of the form has all identifying information deleted and is sent to the NPRS Unit at The Economic and Social Research Institute (ESRI). The fourth and final copy is retained by the hospital. Figure 1.1 provides a diagrammatic representation of the information system. In January 1998, the four-part form replaced the two-part Domiciliary Notification Form for the notification of domiciliary births. Just as with hospital births, Part 1 is sent to the Registrar of Births and subsequently to the CSO; Part 2 is sent to the Director of Community Care and Medical Officer of Health in the mother's area of residence; the third copy is sent to the NPRS unit at the ESRI; and the fourth copy is retained by the midwife. All the tables in the present report are based on data contained in the third copy of the standard form.

Figure 1.1
National Perinatal Reporting System, Diagrammatic View



The data collected by the National Perinatal Reporting System can be logically grouped into demographic, clinical and administrative data. The data collected by the NPRS for 2001 include:

- **Demographic Data**
Date of infant's birth; sex of infant; multiple birth indicator;
Date of father's birth; father's county of residence; father's occupation;
Date of mother's birth; mother's county of residence; mother's occupation;
Marital status of mother and date of present marriage.

- Clinical Data**

Infant's birthweight and period of gestation; mother's obstetric history;
Autopsy indicator; whether stillbirth occurred before or during labour;
Main cause of death and one secondary cause of death for infant;
Maternal immunity to rubella; method of delivery;
Infant's BCG vaccination;
Main maternal disease or condition and one secondary maternal disease or condition affecting the infant or foetus;
Main disease or congenital malformation and one secondary disease or congenital malformation affecting the infant or foetus.
- Administrative Data**

Hospital number; case number (unique to hospital of birth);
Type of birth indicator; place of birth;
Date of last birth (live or still);
Type of death indicator; place of death;
Type of antenatal care received; date of first visit to doctor and hospital during pregnancy;
Type of feeding; pre-booked admission indicator; dates of mother's admission and discharge;
date of infant's discharge;
Infant transfer indicator; hospital number for hospital to which infant was transferred.

Data Processing

Coding of the forms takes place in the NPRS Unit at the ESRI. Occupations are coded according to the Central Statistics Office system of socio-economic group classification (see Appendix B). Diseases and cause of death are coded using the ninth revision of the International Classification of Diseases (ICD) and according to the guidelines set out by the World Health Organisation (see Appendix C). The data are entered onto computer by a private company and the file is then transferred to the NPRS Unit at the ESRI for validation, processing and the production of reports (see Figure 1.1). Checks are also carried out to ensure the completeness of returns from each hospital. Validation, reports and analyses are carried out using the Statistical Analysis System (SAS) software.

Format and Contents

This report presents a set of national tabulations for perinatal events for 2001 indicating frequencies, stillbirth rates, early neonatal death rates, and perinatal mortality rates set out for a number of the most important social, biological and health care variables. The data are presented in four main sections covering selected trends, general characteristics, perinatal care and perinatal outcomes. Section 2 (Selected Trends) documents significant trends in the principal variables for the years 1990-1993 and 1999-2001. Section 3 contains tables relating to the following variables: maternal age; parity; marital status; socio-economic group of mother; socio-economic group of father; distribution of previous stillbirths; birthweight (by sex); twinning rate; gestational age; interval since last birth; and month of birth.

Section 4 deals with variables which fall more naturally into the category of use of health care facilities and type of antenatal care received and deals with the following distributions: gestational age at first antenatal contact of mother with the health services; type of antenatal care received; number of antenatal days stay by the mother; number of postnatal days stay by the mother; mother's immunity to rubella; method of delivery; whether hospital admission was booked or not; type of feeding; transfer of infants between hospitals; and classification of outcome according to size of maternity unit.

In Section 5, causes of perinatal deaths and other factors closely related to the outcome of pregnancy are considered. In this section tables are presented on the following variables: numbers of antepartum and intrapartum stillbirths by birthweight groups; numbers and rates for cause of death and cause of death by birthweight; age at death for early neonatal deaths; numbers and percentages of stillbirths and early neonatal deaths undergoing post-mortem examinations; and the length of infant's stay in hospital. It should be noted that Sections 3, 4 and 5 are each divided into two parts: Part 1 dealing with singleton births and Part 2 dealing with multiple births. A number of cross-tabulations of selected variables of importance are contained in Appendix E, and many of the graphs in the report are based on data abstracted from these tables.

Appendix F is included presenting an analysis of perinatal deaths for 2001 according to the classification system suggested by Dr. J.S. Wigglesworth. This system sets out five general and mutually exclusive cause of death categories designed to provide for relatively straightforward classification and to identify problem areas with implications for the clinical management of patients. The classification criteria as well as the results are set out in this Appendix.

Finally, Appendix G documents significant trends in the principal variables for domiciliary births in 1999, 2000 and 2001 as well as a number of cross-tabulations of selected variables for domiciliary births in 2001.

Definitions

This section brings together the definitions of the terms used in the analyses for this report.

Outcomes and Rates

Live Birth (LB): A live birth is defined as the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. In accordance with World Health Organisation (WHO) guidelines, live births weighing less than 500 grams are not included in the national statistics.

Stillbirth (SB) and Stillbirth Rate: Foetal death is defined as death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy. A foetal death is indicated by the fact that, after such separation, the foetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. Following WHO guidelines, a stillbirth, in this report, refers to the death of a foetus weighing at least 500 grams. The stillbirth rate is given as follows:

$$\frac{\text{Number of Stillbirths} \times 1,000}{\text{Total Number of Live Births and Stillbirths}}$$

Early Neonatal Death (ENND) and Early Neonatal Mortality Rate: An early neonatal death refers to the death of a live born infant during the first week of life. The early neonatal mortality rate is calculated as follows:

$$\frac{\text{Number of Early Neonatal Deaths} \times 1,000}{\text{Total Number of Live Births}}$$

Perinatal Death and Perinatal Mortality Rate (PMR): Perinatal deaths include stillbirths and early neonatal deaths. The perinatal mortality rate (PMR) is calculated as follows:

$$\frac{\text{Number of Stillbirths and Early Neonatal Deaths} \times 1,000}{\text{Total Number of Live Births and Stillbirths}}$$

In this report a second perinatal mortality rate has been calculated excluding all stillbirths and early neonatal deaths due to congenital anomalies. This adjusted rate (Adjusted PMR) to some extent removes those perinatal events where death was unavoidable, but no attempt has been made to exclude only invariably fatal congenital anomalies.

Twinning Rate: This is given by

$$\frac{\text{Number of Twin Maternities} \times 1,000}{\text{Total Number of Maternities}}$$

Twin maternities, which resulted in stillbirths, are included in the calculation of the twinning rate.

Note: In this report, where rates are based on very small numbers, they should be interpreted with caution and should not be used as estimates of the true population rates.

Other Items

The definitions given below relate to the principal classification variables contained in the main section of the report and refer only to those terms where explanation is considered necessary. The definitions are grouped according to the section in which they first appear.

General Characteristics

Born Before Arrival (BBA): Born before arrival indicates that an infant was delivered before arrival at hospital.

Domiciliary birth: Domiciliary births are planned home births. The vast majority of these are attended by an independent midwife and are not associated with a hospital. In 2001 there were 22 births under hospital administered home birth schemes. For the purposes of this report these births are treated as hospital births due to the small numbers.

Parity: Maternal parity indicates a mother's total number of previous live births and stillbirths.

Marital status: Five categories are recognised as specified below:

- i. Married
- ii. Single: including women with civil annulments and women who have been widowed for more than 10 months.
- iii. Widowed: including all women who have been widowed for 10 months or less.
- iv. Separated: covers the following categories:
 - Deserted
 - Legally separated
 - Church decree of nullity
 - Otherwise separated
- v. Divorced

Father's Occupation: Occupations are coded and grouped, with minor modifications, according to the CSO system of socio-economic groupings as used in the 1991 Census of Population, Volume 6. Details are given in Appendix B.

Mother's Occupation: Occupations are coded and grouped, with minor modifications, according to the CSO system of socio-economic groupings as used in the 1991 Census of Population, Volume 6. Details are given in Appendix B.

Birthweight: Birthweight is given in grams and hospitals are asked to record the weight within the first hour after birth. In accordance with WHO guidelines, infants weighing under 500 grams are not included in the national statistics.

Period of Gestation: Gestational age at delivery is recorded in completed weeks and is measured or estimated according to the best method available in each case.

Time since last birth: This variable gives the time, grouped into yearly intervals, since the mother's last live birth or stillbirth.

Perinatal care

Antenatal Length of Stay: This is computed as the difference, in days, between a mother's date of admission and her date of delivery. Domiciliary births are not included in tables relating to this variable.

Postnatal Length of Stay: This is computed as the difference, in days, between the date of delivery and the date of the mother's discharge from hospital. A return of 'not stated' for this variable may indicate that the completed form was returned before the mother had been discharged. Domiciliary births are not included in tables relating to this variable.

Immunity to Rubella: An affirmative answer should be recorded only where there is documented evidence of a rubella antibody test. A history of rubella or previous immunisation is not sufficient.

Method of delivery: Six categories are used:

- i. Spontaneous cephalic delivery, without any of the following:
- ii. Breech delivery, spontaneous, with or without forceps to after-coming head, breech extraction
- iii. Forceps delivery
- iv. Vacuum extraction
- v. Caesarean section
- vi. Other specified and Combined

Hospital Admission Booked or Unbooked: Domiciliary births are not included in the tables relating to this variable.

Type of Feeding: Indicates whether artificial, breastfeeding or a combination of both was being used at the time of discharge.

Transfer of Infants: This identifies infants who were transferred to another hospital for medical reasons.

Size of Maternity Unit: Size in this context refers to the number of perinatal events occurring during the year.

Perinatal Outcomes

Antepartum and Intrapartum Stillbirths: These refer to stillbirths occurring prior to and during labour respectively.

Cause of Death: This categorisation indicates the principal underlying pathological cause, which in the opinion of the certifier made the greatest contribution to the death of the infant or foetus. In assigning cause of death, the guidelines recommended by the World Health Organisation have been followed. A summary of these guidelines, together with a list of the International Classification of Disease codes grouped into each category, is provided in Appendix C.

Age at Death: The age of early neonatal deaths is given in completed hours if the infant survived less than 1 day and in completed days otherwise.

Post-mortem: This indicates whether or not a post-mortem examination was performed. In some cases a return of 'not stated' may be due to the notification form being returned prior to post-mortem.

Length of Infant's Stay: This is computed as the difference, in days, between the infant's date of birth and the date of the infant's discharge from hospital. A return of 'not stated' for this variable may indicate that the completed form was returned before the infant had been discharged. Where an infant was transferred to another hospital, the date of the transfer is given as the date of the infant's discharge. Domiciliary births and perinatal deaths are not included in the tables relating to this variable.

Note:

- All perinatal statistics and definitions are based on WHO ICD-9 Classifications.
- Where a particular value of a variable does not occur in a table, the row corresponding to that value is not included. This arises most frequently in relation to multiple births. For example, in Table 3.15 the values for 'under 15' are not included as there are no occurrences of these multiple births for mother's age 'under 15'.

Completeness and Reliability

Coverage

The National Perinatal Reporting System covers all live births and stillbirths occurring in the country. However, there are differences in the vital statistics published by the CSO and the data presented in this report. The reasons for this are outlined further below.

Late Notifications

All notifications of births in 2001 have been recorded and this report is based on a full and complete dataset for this year.

Missing Values

No attempt has been made to assign values to missing data, and they are included as a separate category in each table. In comparison with 1999 and 2000, many variables show substantial improvement in the proportion of cases with the value 'not stated'. This is a positive outcome arising from continued effort on the part of the NPRS staff and all the hospital administrators and independent midwives to reduce the number of missing values for all variables collected in the data set. This improves the completeness of the reported data, which is a key objective for the NPRS.

There were no new variables introduced in 2001. Father's date of birth and mother's occupation were reported on for the first time in the Report for 1999. For 2001, father's date of birth is missing for 14.5 per cent of births where mother's marital status is married.¹ Missing values for mother's occupation have also improved and are missing for only 1.5 per cent of births in 2001 compared to 1.8 per cent of births in 2000. Efforts will continue to be expended to improve coverage for these and all variables for future reports.

With the exception of 'date of first visit to the doctor or hospital during pregnancy', the number of missing values recorded continues to improve for all aspects of perinatal care. The 'date of first visit to the doctor or hospital' is now missing for 6.4 per cent of births in 2001. This is disappointing as this variable is an indicator of the length of antenatal care each mother has received and when examined against other variables, such as mother's age, marital status, occupation and interval since last birth can yield important information relevant to perinatal care. Improvements are most notable for 'type of antenatal care' where coverage is virtually complete (only 0.06 per cent missing). 'Booking' and 'transfer' indicators are similarly complete (both recording only 0.01 per cent missing values). 'Mothers' immunity to rubella' recorded no missing values for all births recorded in 2001.

Completeness of variables relating to the infant has also improved in the 2001 dataset. 'Type of feeding' has been recorded as 'not stated' for only 0.06 per cent of all births, while birthweight is unknown for only 15 births. In 2001 method of delivery was unknown for just 10 births.

Notwithstanding improvements in the completeness of returns, the elimination of 'missing values' for all variables continues to be an important objective for the development of the NPRS.

Accuracy

While computer validation can identify illogical or unacceptable data, it cannot detect information, which, though valid, is inaccurate. Information on the county of residence of mother can also be inaccurate since in safeguarding confidentiality the copy of the notification form received by the NPRS unit at the ESRI does not contain the mother's full address but only the county designation (see Appendix A). It is possible that data entered in this space may refer to the county in which the birth

¹ It should be noted that where a mother's marital status is single, widowed, separated or divorced the General Register Office (GRO) does not require father's details to register the birth, and as such this information is generally not provided.

occurred. Consequently, mother's area of residence has been analysed at health board level in this report. The new instruction manual to facilitate completion of BNF01/2003 issued in May 2003 details the requirements for completion of each field, both new and existing. Careful attention to these instructions will complement the efforts that are continually in progress to improve all aspects of data quality (see Future Reports and Improvements below).

Discrepancies with CSO Data

Differences between the vital statistics tables compiled by the CSO and the NPRS data for 2001 presented here arise for a variety of reasons. One reason for these differences is that information is not always obtained from the same sources. This is particularly evident in the tabulations regarding cause of death. The CSO does not obtain information on maternal diseases or conditions affecting the foetus or infant while the NPRS does not have access to coroner's certificates relating to neonatal deaths. The CSO also uses a separate notification form (Form 103) for collecting information on late foetal deaths.

In 1995 stillbirths were registered in Ireland for the first time under the Stillbirths Registration Act, 1994. The CSO collect these data using Part 1 of the birth notification form sent to the GRO, while the NPRS collect them using Part 3 of the birth notification form. The CSO defines a stillbirth as weighing at or over 500g and/or at a gestational age of 24 weeks or more. From 1995 onwards, this definition applies to a late foetal death. In accordance with the World Health Organisation's (WHO) definition of a stillbirth, the NPRS includes all late foetal deaths weighing at least 500g, irrespective of gestational age. In 2001 the NPRS recorded a higher number of stillbirths than the CSO. Applying the CSO's definition of a stillbirth, the number of stillbirths recorded by the NPRS would be estimated at 385 stillbirths. The CSO, however, reports just 358 stillbirths indicating that in 2001 a number of stillbirths were notified to NPRS but not registered to the GRO. When we apply the WHO definition of a stillbirth to the data collected by the NPRS, the number of stillbirths recorded by the NPRS is estimated at 339. In accordance with WHO guidelines, only these 339 stillbirths are included in the NPRS dataset for this report. Differences in the definitions of stillbirth used by the CSO and the WHO is therefore an important factor in understanding differences in the stillbirth numbers and rates and the perinatal rate reported by the CSO and the NPRS.

Finally, differences in coding procedures can be reflected in the published statistics. The ICD coding procedures are recognised to be particularly difficult and subjective in the area of causes of perinatal mortality and the current separate coding arrangements can therefore lead to significant discrepancies. Ideally, the data sources and data coding should be harmonised between the CSO and NPRS. One approach to achieving this objective would involve computerisation of the birth registration system and the consequent elimination of duplicate paperwork, coding and validation. The General Register Office began its national roll-out for the computerisation of birth registration in September 2003. This will cover the registration information currently collected on the top copy of the birth notification form. Parts 2, 3 and 4 of the form, which contain additional statistical information, will continue as paper based systems. Future phases of the computerisation programme are intended to include all statistical data. In the interim, the NPRS is exploring the option of downloading the computerised information electronically and linking it with the statistical data captured in Part 3 of the form. This would assist in ensuring identification of all births and reduce duplication of effort in keying registered data. The HIPE & NPRS Unit at the ESRI has developed an in-house data entry system whereby notifications of births from January 1st 2004 will be coded and entered onto the NPRS as they are received. This system will fully validate the information received on each form resulting in more timely and efficient validation and reporting of data from 2004

onwards. As with any new system we rely on hospital administrators to provide accurate and up-to-date data and their efforts in adapting to this new system are essential to the accuracy and future viability of this very valuable statistical resource.

The gap between the twinning rate calculated by the CSO and the ESRI is very narrow and has further reduced for the 2001 report to only a 0.3 per 1,000 maternities difference. For 2001 the CSO report a twinning rate of 15.6 per 1,000 maternities and the NPRS report a twinning rate of 15.3 per 1,000 maternities. The NPRS dataset includes only multiple births where weight is 500 grams or more. As a result, multiple births where one or more births weighs <500 grams are removed from the national dataset resulting in a small difference between the number of multiple births in the NPRS dataset and the number of complete sets of multiple births (see Table 3.14). There is a single field on the birth notification form that identifies a multiple birth. If this is not recorded then the ESRI has no way of identifying multiple births. However, the additional personal identification data available to the CSO ensures a more comprehensive estimate by this agency of the number of multiple births.

Future Reports and Improvements

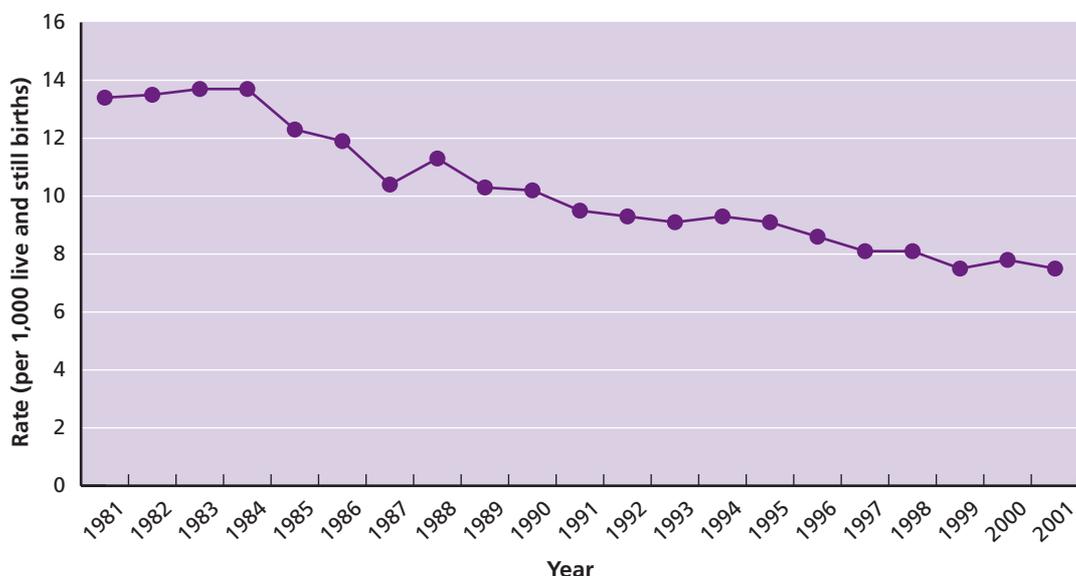
The minimum perinatal data set contained in this report is intended to serve as a foundation for the monitoring of perinatal health. As emphasised above, in order to do this effectively the data must be accurate, comprehensive and up-to-date. While the 2001 report again notes progress in the reduction of levels of 'not stated' data and discrepancies with CSO estimates, the elimination of these problems remains a key objective. The continued development of computerised registration and notification would seem to be an essential prerequisite to the achievement of the NPRS goal of delivering optimum data quality, timeliness and comprehensive coverage.

General Trends and International Comparisons²

Perinatal Mortality

Recent decades have witnessed a substantial decline in infant, neonatal and perinatal mortality in Ireland. Figure 1.2 shows the perinatal mortality rate in Ireland from 1981-2001. These rates are based on the national statistics compiled by the CSO. Between 1965 and 1980 the perinatal mortality rate fell by more than half from 30 deaths per 1,000 live births and stillbirths to 14.8 per 1,000 live births and stillbirths. From 1981 until 1984 the rate remained stable but resumed its decline to 10.4 in 1987 before rising slightly to 11.3 in 1988. From 1989 the rate declined relatively steadily from 10.3 to a low of 7.5 in 1999, which was half the 1980 rate. For 2000, the perinatal mortality rate increased marginally to 7.8 and dropped to 7.5 in 2001.

Figure 1.2
Perinatal Mortality Rate, Ireland: 1981-2001



Note: In 1995 a broader definition of stillbirths was employed by the CSO. The new definition includes stillbirths at or over 500g or at a gestational age of 24 weeks or more. Figures given here are based on the old definition of a stillbirth (at or over 28 weeks) to facilitate comparisons.

Source: Reports on *Vital Statistics, 2001*, Central Statistics Office.

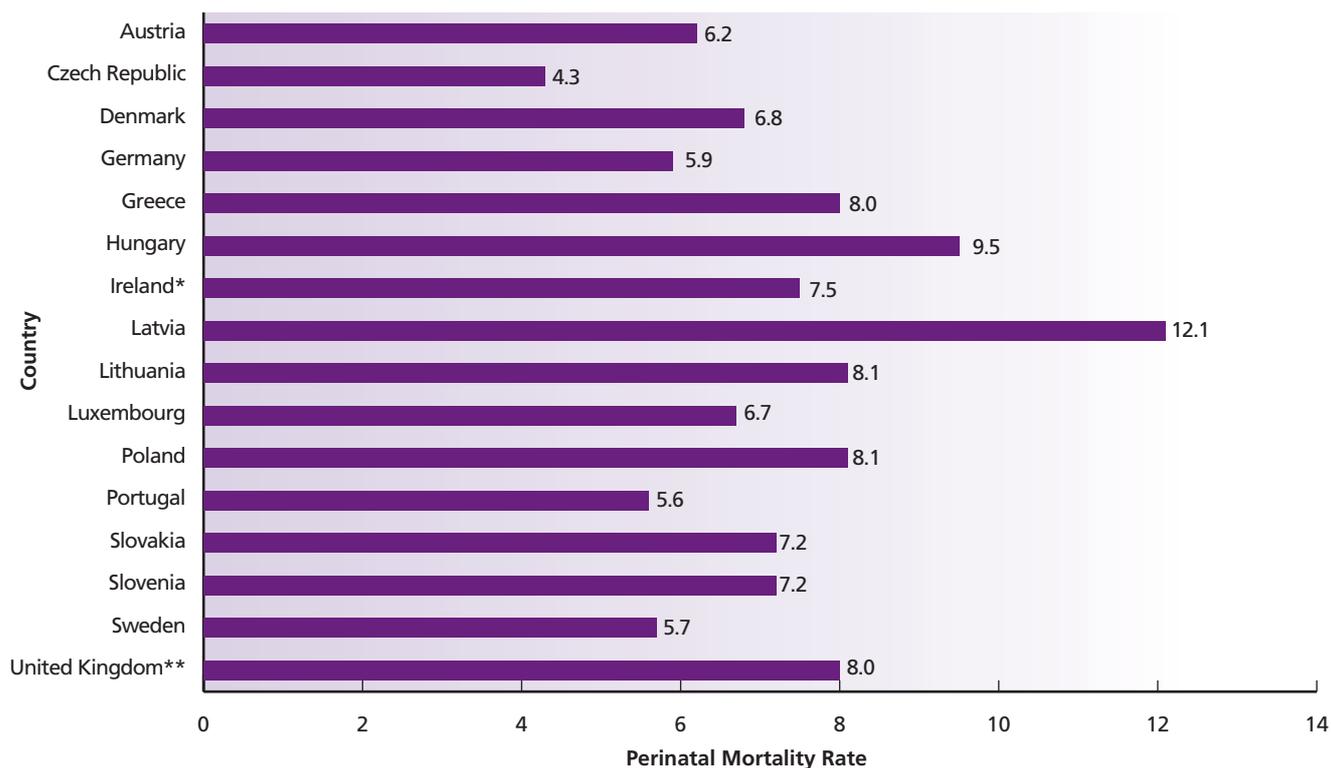
The factors impacting on the level of perinatal mortality are complex and encompass a wide range of environmental and biological variables. Birthweight, parity, mother's age, social status and type of antenatal care as well as many other variables have a bearing on perinatal risk. Data in this report indicate levels of perinatal mortality for the principal variables associated with risk. Ireland's standing in relation to other countries in the European Union (EU) is shown in Figure 1.3. Of the sixteen countries for which data are available in 2001, Ireland's perinatal mortality rate is amongst the highest recorded at 7.5 per 1,000, with only Greece and a number of new member states including Hungary, Poland, Latvia and Lithuania showing higher rates. Of the sixteen countries represented here, the Czech Republic records the lowest perinatal mortality rate at 4.3 per 1,000 followed by

² National figures presented in this section are based on official registration data as compiled by the Central Statistics Office. These figures may differ somewhat from numbers and rates appearing in the tables of this report for reasons given in the previous section.

EU comparisons are based on EU membership at time of publication (i.e. twenty-five countries).

Portugal with 5.6 per 1,000. When comparing between countries it should be remembered that rates are affected by national policies on abortion, by differences in the comprehensiveness and accuracy of registration and notification systems and by differences in definitions employed (for example, for stillbirth).

Figure 1.3
Perinatal Mortality Rate, 2001 for Selected EU Countries



Source: *Population and Social Conditions, Demography, Perinatal Mortality Rate 2001*, Eurostat, October 2004.

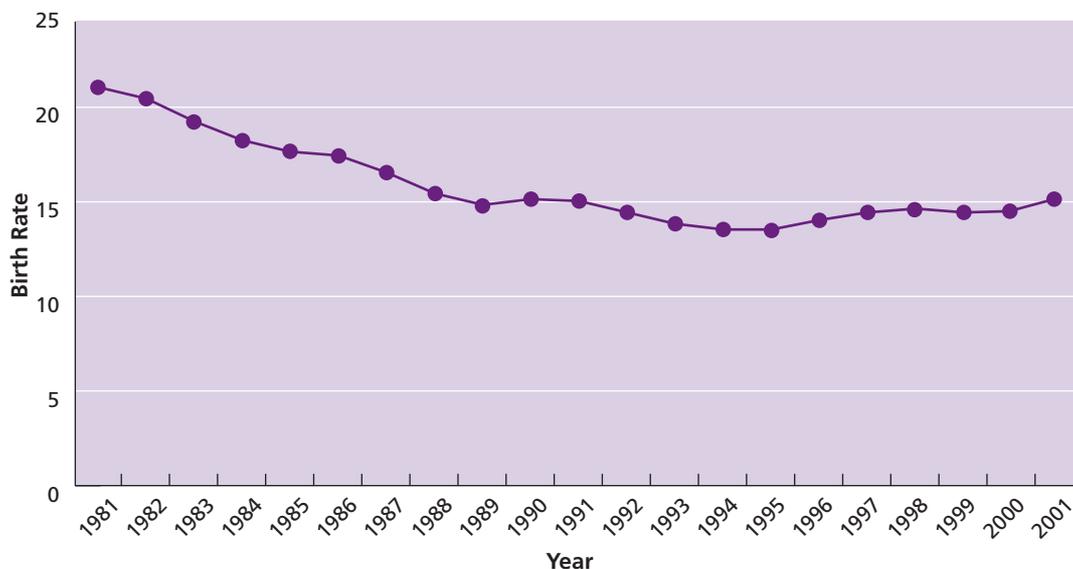
*National figure compiled by the Central Statistics Office, *Report on Vital Statistics, 2001*.

**Source: Office for National Statistics, *Deaths, 1841-2001: Numbers, Rates, SMRs, Infant Mortality*, December 2003.

Birth Rate

Figures for births per 1,000 population over the past twenty years illustrate an overall reduction of 28 per cent in the crude birth rate. From 1981, the birth rate steadily declined from 21.0 to 14.8 per 1,000 population in 1989. It then rose slightly in 1990 to 15.1 and immediately began to decline again to reach an all time low of 13.5 in 1994 and 1995. Since 1995 the birth rate has gradually increased to 14.6 in 1998, and has remained stable up until 2000 at 14.5 per 1,000 population. For 2001 the birth rate increased to 15.1 per 1,000 population. This represents a return to the rates experienced in the early 1990s (Figure 1.4).

Figure 1.4
Birth Rate per 1,000 Population, Ireland: 1981-2001



Source: Reports on *Vital Statistics, 1981-2001*, Central Statistics Office.

Figure 1.5 shows trends in birth rates for selected EU countries in the last decade. For the countries reviewed, Ireland has consistently had the highest birth rate over the period. While Ireland's birth rate moved closer to that of other European countries around 1995 we continue to have the highest birth rate of any of the twenty-five EU countries.

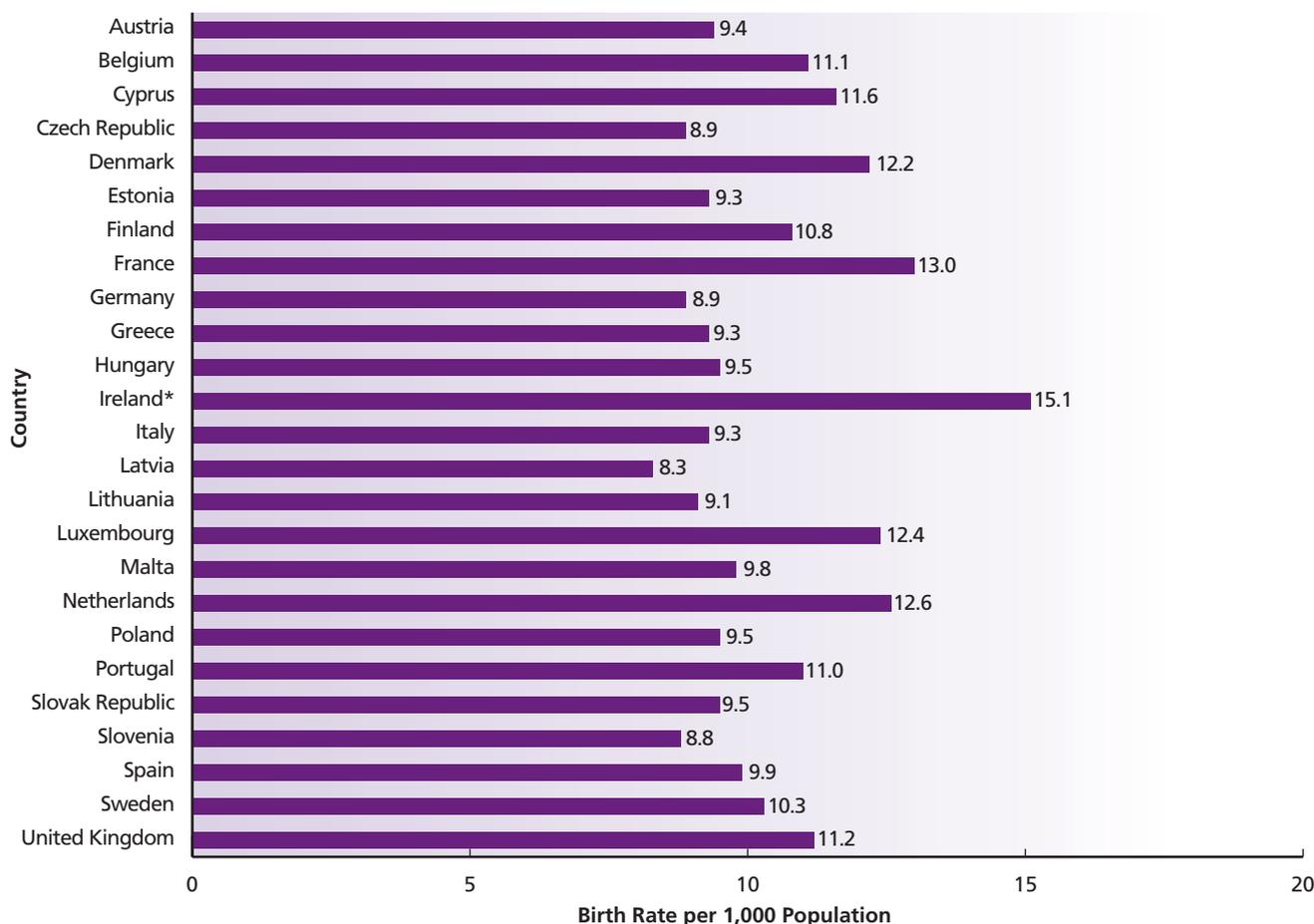
Figure 1.5
Trends in Birth Rates for Selected EU Countries: 1991-2001



Source: *Population and Social Conditions, Demography, Crude Birth Rate, 1991-2001*, Eurostat, October 2004.
 *National figures. Report on *Vital Statistics, 2001*, Central Statistics Office.

Figure 1.6 displays the birth rate per 1,000 population for EU countries in 2001. Apart from Ireland, the country with the next highest birth rate is France (13.0) followed by the Netherlands and Luxembourg (12.6 and 12.4 respectively). In 2001 Latvia had the lowest birth rate (8.3) followed by Slovenia (8.8). These were closely followed by Germany and the Czech Republic (8.9).

Figure 1.6
Birth Rate per 1,000 Population for EU Countries: 2001



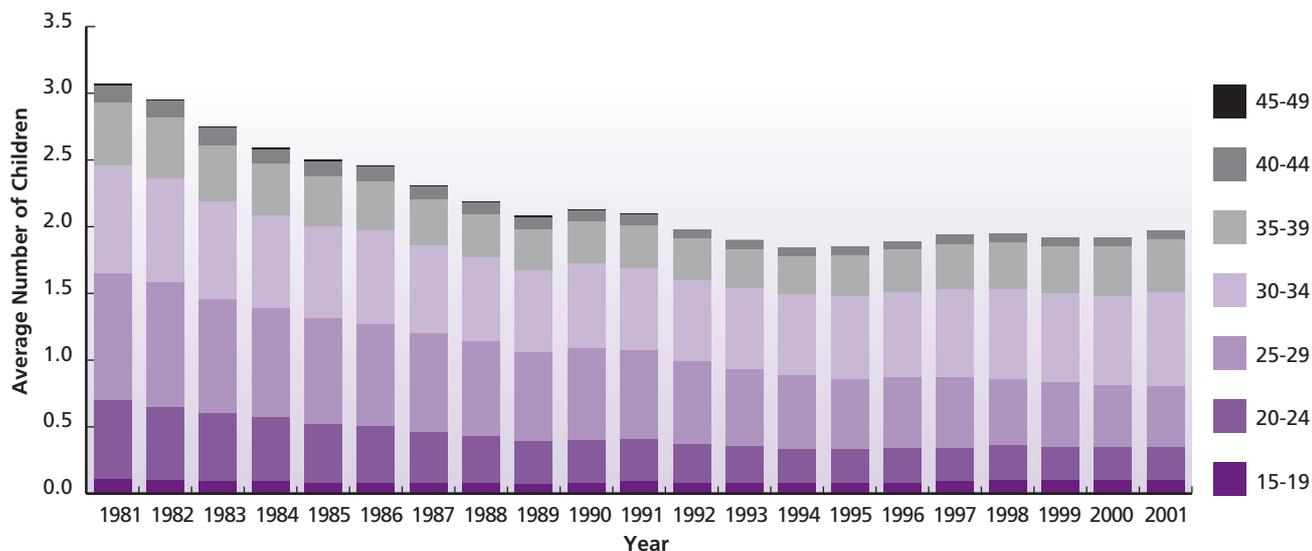
Source: *Population and Social Conditions, Demography, Crude Birth Rate, 2001*, Eurostat, October 2004.
 *National figures. Report on *Vital Statistics, 2001*, Central Statistics Office.

It should be noted that the crude birth rate could rise or fall depending on the numbers of women in the age cohorts from 15-49 years old. Changes in the crude birth rate therefore often masks underlying trends in fertility. Total fertility provides a better measure of these trends and is presented in the next section.

Fertility

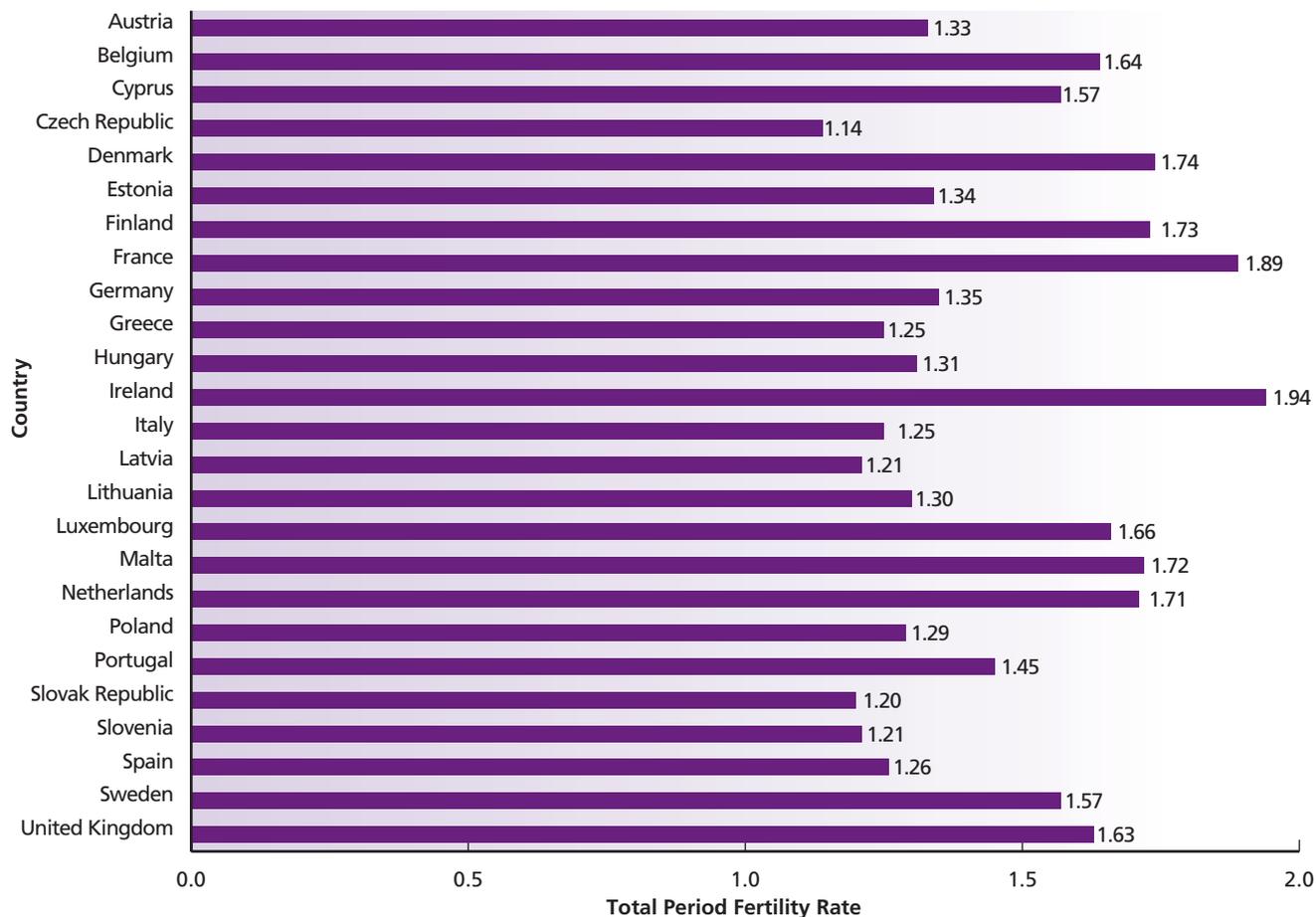
Figure 1.7 shows the trend in the Total Period Fertility Rate (TPFR) in Ireland over the past twenty years. The TPFR for a given year indicates the number of children a woman could expect to have if the age specific fertility rates for that year applied throughout her fertile years. The Irish TPFR has declined from an average of 3.07 in 1981 to 1.98 in 2001, representing a 36 per cent decrease over 20 years. During the latter half of the 1990s, the TPFR remained relatively stable with the rise in crude birth rate being largely accounted for by the increasing numbers of women in the childbearing age groups. As in all twenty-five EU countries, the TPFR for Ireland remains below the level required for the long-term replacement of the population (TPFR of 2.1) in the absence of any net inward migration. While Ireland has experienced a fairly rapid fall in TPFR over recent years, Ireland nonetheless continues to have the highest TPFR in the EU (Figure 1.8) followed by France (1.89 TPFR). For 2001 the Czech Republic and the Slovak Republic have the lowest total period fertility rates (1.14 and 1.20 respectively) within the twenty-five EU countries.

Figure 1.7
Total Period Fertility Rates Subdivided by Age Groups, Ireland: 1981-2001



Source: Report on *Vital Statistics, 2001*, Central Statistics Office.

Figure 1.8
Total Period Fertility Rate, 2001, for EU Countries



Source: *Population and Social Conditions, Demography*, Total Fertility Rate, 2001, Eurostat, October 2004.
 Note: For comparative purposes all rates (including that for Ireland) for Figure 1.8 are from Eurostat, October 2004.
 Due to different population estimates used there can be slight differences with official CSO figures.



Section 2
Selected Trends

Section 2 Selected Trends

Introduction

A general review of the data reported to NPRS over the period 1990-1993, 1999, 2000 and 2001 is presented in this section. Tables 2.1 and 2.2 examine trends in vital and selected statistics for these years. Figures 2.1 to 2.7 present a selection of percentages and averages on a number of variables, including single mothers; low birthweight babies; caesarean births; mother's breastfeeding and other aspects of perinatal care. Each of these figures summarise data for 1990-1993, 1999, 2000 and 2001.

Section 2 Selected Trends

Table 2.1
Trends in Vital Events, 1990-1993, 1999, 2000 and 2001

Singleton and Multiple Births, Numbers and Rates for
Live Births, Stillbirths, Early Neonatal Deaths and Perinatal Deaths

Vital Events		1990		1991		1992		Year 1993		1999		2000		2001	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Live Births:	Singleton	51,543	-	51,242	-	49,686	-	48,030	-	52,556	-	53,429	-	56,115	-
	Multiple	1,250	-	1,200	-	1,182	-	1,001	-	1,463	-	1,429	-	1,807	-
	Total	52,793	-	52,442	-	50,868	-	49,031	-	54,019	-	54,858	-	57,922	-
Stillbirths:	Singleton	305	5.9	284	5.5	285	5.7	272	5.6	274	5.2	288	5.4	307	5.4
	Multiple	11	8.7	18	14.8	16	31.4	11	10.9	14	9.5	20	13.8	32	17.4
	Total	316	6.0	302	5.7	301	5.9	283	5.7	288	5.3	308	5.6	339	5.8
Early Neonatal: Deaths	Singleton	191	3.7	195	3.8	173	3.5	131	2.7	130	2.5	153	2.9	136	2.4
	Multiple	22	17.6	24	20.0	19	16.1	16	16.0	27	18.5	23	16.1	24	13.3
	Total	213	4.0	219	4.2	192	3.8	147	3.0	157	2.9	176	3.2	160	2.8
Perinatal : Deaths	Singleton	496	9.6	479	9.3	458	9.2	403	8.3	404	7.6	441	8.2	443	7.9
	Multiple	33	26.2	42	34.5	35	29.2	27	26.7	41	27.8	43	29.7	56	30.5
	Total	529	10.0	521	9.9	493	9.6	430	8.7	445	8.2	484	8.8	499	8.6
Adjusted : Perinatal Deaths	Singleton	376	7.3	320	6.2	318	6.4	294	6.1	301	5.7	317	5.9	311	5.5
	Multiple	29	23.1	39	32.1	32	26.8	18	17.9	37	25.1	31	21.4	45	24.5
	Total	405	7.6	359	6.8	350	6.9	312	6.3	338	6.2	348	6.3	356	6.1

Table 2.2
Trends in Selected Statistics, 1990-1993,1999, 2000 and 2001

Selected Statistics	1990	1991	1992	1993	1999	2000	2001
General Characteristics							
Average Age of Mother in years	29.11	29.11	29.18	29.30	30.06	30.18	30.27
Average Maternal Parity	1.48	1.43	1.37	1.33	1.10	1.09	1.07
Single Mothers (%)	13.56	15.54	16.50	18.14	29.71	30.09	30.14
Average Age of Single Mothers in years	22.35 ^E	22.36 ^E	22.41 ^E	22.83 ^E	24.74	24.98	25.36
Average Number of Previous Stillbirths per 1,000 maternities	19.44	17.22	19.82	23.18	14.03	13.06	13.57
Average weight in grams							
- Singleton Births	3,509.88	3,548.02	3,525.01	3,520.02	3,505.35	3,517.36	3,509.36
- Multiple Births	2,584.04	2,653.17	2,549.84	2,535.38	2,467.24	2,509.85	2,470.41
- Total Births	3,488.10	3,527.54	3,502.37	3,499.98	3,477.19	3,491.13	3,476.96
Low birthweight <2500 grams (%)							
- Singleton Births	3.35	3.43	3.24	3.39	3.80	3.84	3.84
- Multiple Births	38.70	38.38	41.38	42.23	47.71	43.35	46.46
- Total Births	4.18	4.23	4.13	4.18	4.99	4.87	5.17
Average Gestational Age at delivery in weeks	39.60	39.59	40.23	40.08	39.48	39.46	39.47
Average interval since last birth in years	3.68	3.68	3.69	3.75	3.82	3.84	3.81
Perinatal Care							
Hospital & GP combined antenatal care (%)	60.80	58.97	61.97	63.94	72.30	72.39	73.25
Average gestational age at time of first visit to doctor in weeks	11.46	11.80	11.63	11.58	15.54	15.41	15.28
Mother's average length of stay in days	5.47	5.24	5.12	5.15	4.71	4.54	4.38
Immunity to Rubella (%) ¹	88.77	89.40	89.02	89.36	89.63	87.76	86.84
Method of Delivery (%) ²							
- <i>Singleton Births</i>							
- Spontaneous	74.33	73.64	73.72	72.95	65.35	64.56	64.29
- Caesarean	10.39	11.30	11.78	12.57	19.69	20.55	21.05
- Forceps ³	9.78	9.58	8.30	7.79	4.27	3.78	3.21
- <i>Multiple Births</i>							
- Spontaneous	43.06	39.36	40.78	37.99	32.33	33.73	29.83
- Caesarean	24.84	30.70	29.69	34.95	47.23	50.31	52.74
- Forceps ³	7.18	8.07	6.40	6.48	3.08	2.52	2.71
- <i>Total Births</i>							
- Spontaneous	74.07	72.85	72.96	72.24	64.46	63.76	63.22
- Caesarean	10.55	11.75	12.19	13.03	20.43	21.33	22.04
- Forceps ³	9.75	9.54	8.25	7.77	4.24	3.74	3.20
Booked Hospital Admissions (%)	98.70	98.94	98.99	98.46	96.49	96.48	98.17
Mother's breastfeeding (%)	31.66	31.85	33.85	33.89	36.16	38.41	39.13
Perinatal Outcomes							
Wigglesworth Classes (Rate) ⁴							
- Macerated Stillbirths	3.46	2.96	3.48	3.10	3.46	4.04	3.67
- Congenital Anomalies	2.22	2.88	2.74	2.37	1.94	2.46	2.50
- Immaturity	1.73	1.44	1.48	1.20	1.39	1.07	1.27
- Asphyxia	2.32	2.39	1.74	1.91	1.93	1.38	1.49
- Specific Conditions	0.47	0.38	0.47	0.43	0.49	0.51	0.63
- Total	10.20	10.05	9.91	9.00	9.11	9.45	9.57
Infant's average length of stay in days							
- Singleton Births	4.54	4.41	4.44	4.52	4.17	4.08	3.89
- Multiple Births	7.42	7.83	9.56	11.27	10.68	10.73	11.45
- Total Births	4.60	4.47	4.54	4.59	4.34	4.25	4.12
Post-mortems for Early Neonatal Deaths (%)	66.09	66.12	73.78	66.67	44.37	39.41	33.55

¹ Mother's immunity to rubella has fallen once again in 2001 to 86.8 per cent. This rate is most likely influenced by an increase in 'unknown' values for the field 'mother's immunity to rubella' in 2001.

² These figures were not based on total maternities but on total births, to give a more accurate picture as each infant in a multiple can have a different method of delivery.

³ Excludes breech deliveries.

⁴ See Appendix F for details of method.

E= Estimate. Weighted averages from data in Appendix E Table 3, Reports on *Perinatal Statistics, 1990-1993*, Department of Health. Note: These selected statistics are set out according to the order in which they appear in subsequent sections of this report. Further details for each statistic, including mortality rates, are given in these sections. Statistics relating to maternal characteristics are based on total maternities. Missing values are not included in the calculation of percentages.

Figure 2.1
Percentage of Births to Single Mothers, 1990 - 1993, 1999, 2000 and 2001

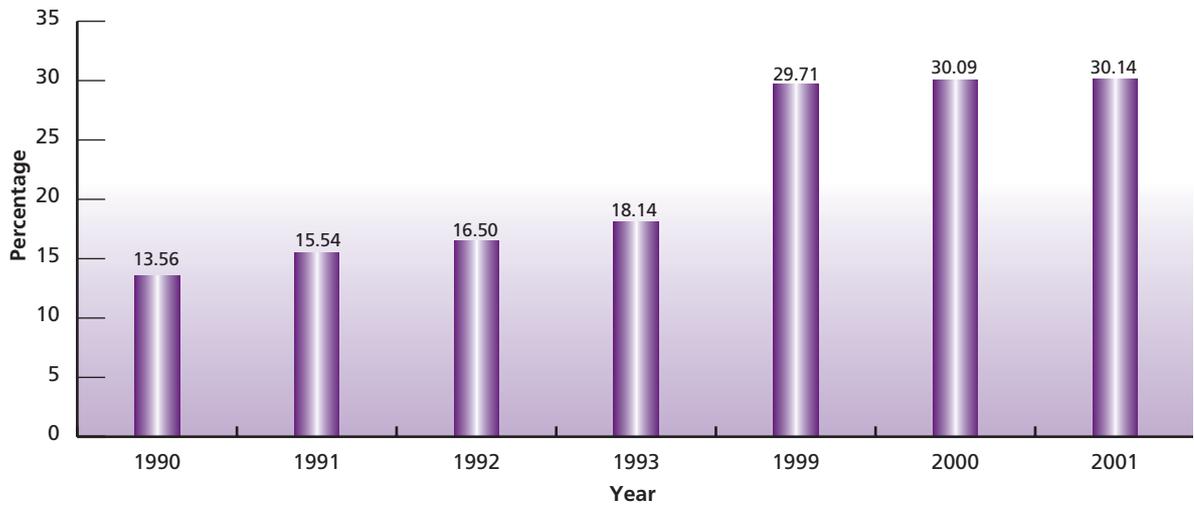
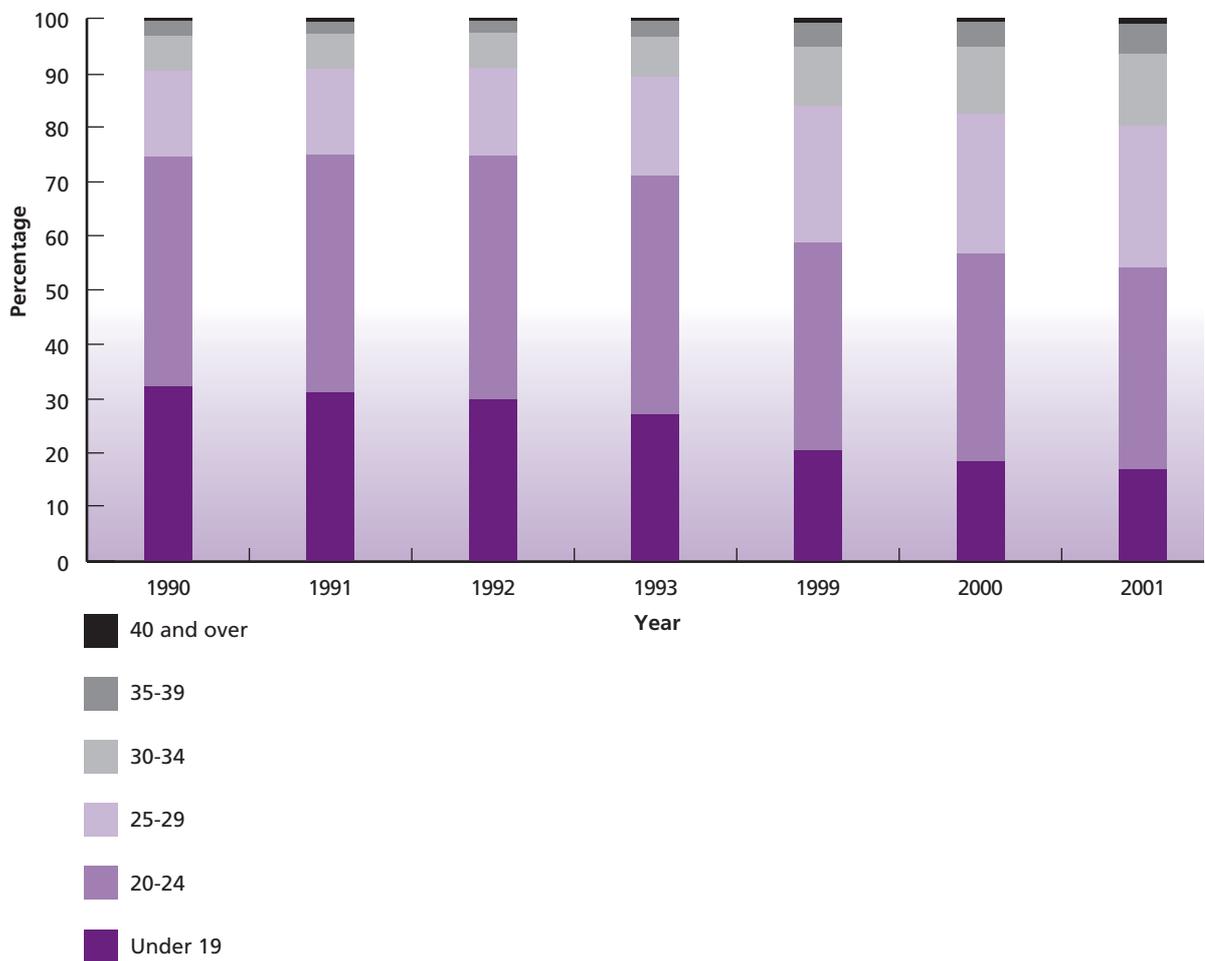


Figure 2.2
Percentage of Births to Single Mothers by Age of Mother, Singleton Births, 1990 - 1993, 1999, 2000 and 2001



Source: Reports on *Perinatal Statistics, 1990-1993*, Department of Health. Appendix E, Table 3.
 Reports on *Perinatal Statistics for 1999 & 2000*, Economic & Social Research Institute. Appendix E, Tables E3.
 Note: See Appendix E, Table E3 for data on 2001.

Figure 2.3
Percentage of Low Birthweight Babies, 1990 - 1993, 1999, 2000 and 2001

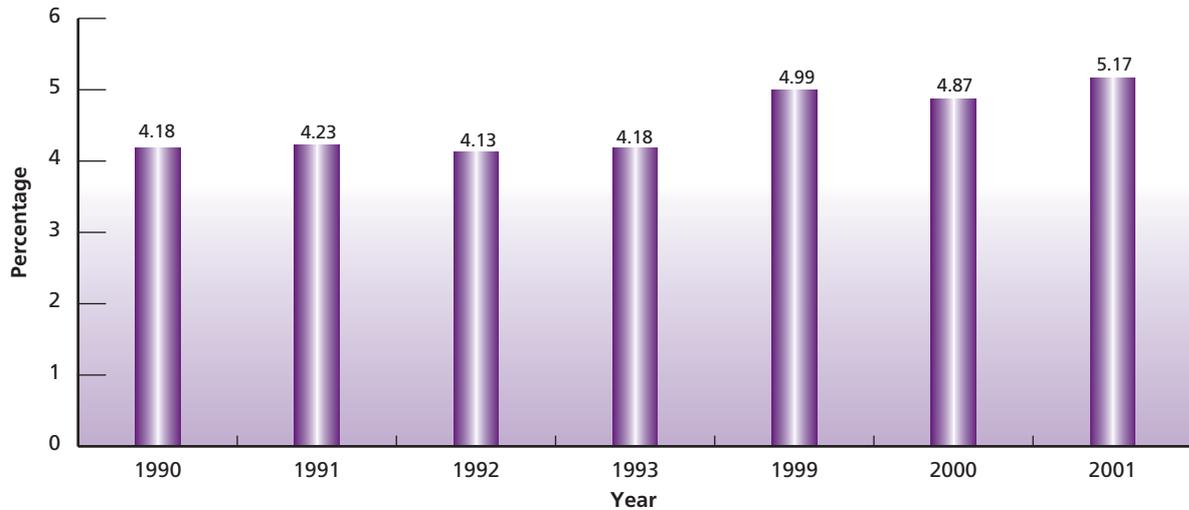


Figure 2.4
Average Gestational Age at Time of First Visit to Doctor or Hospital in Weeks, 1990 - 1993, 1999, 2000 and 2001

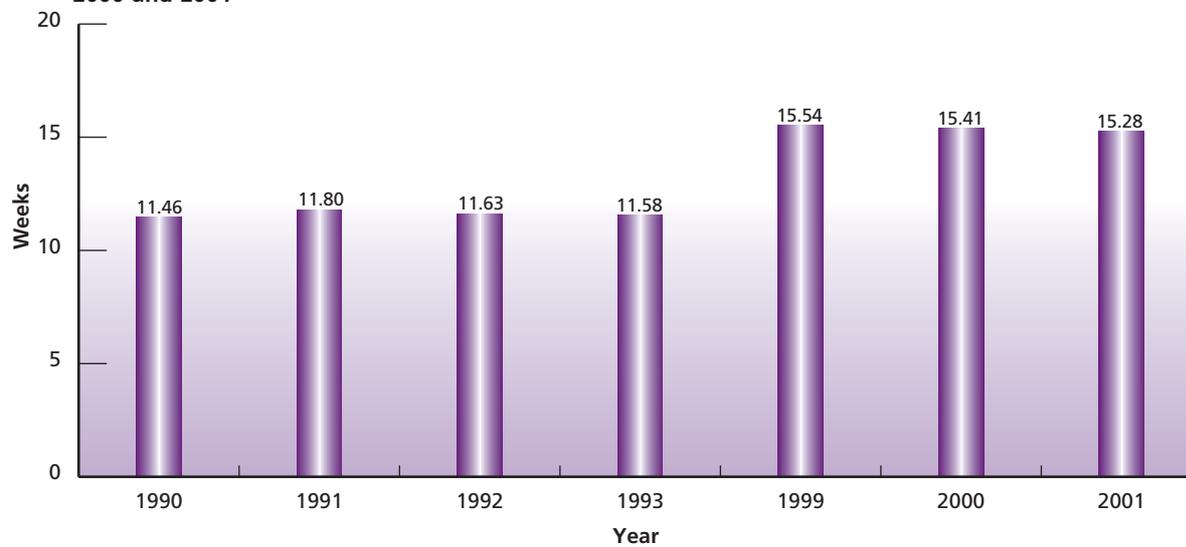


Figure 2.5
Average Length of Stay in Days for Mothers and Infants, 1990 - 1993, 1999, 2000 and 2001

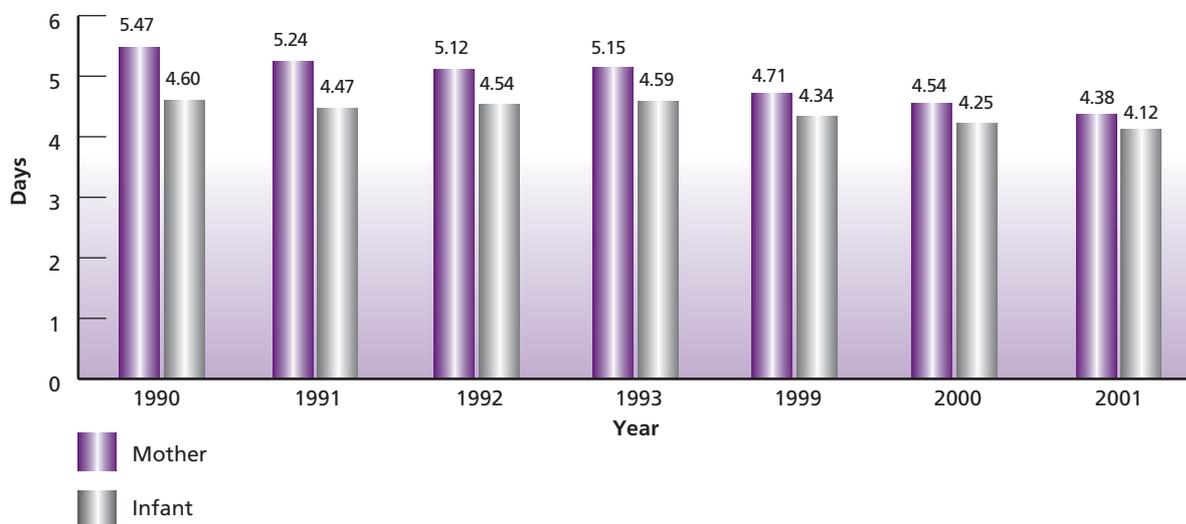


Figure 2.6

Caesarean Births as a Percentage of Total Births, 1990 - 1993, 1999, 2000 and 2001

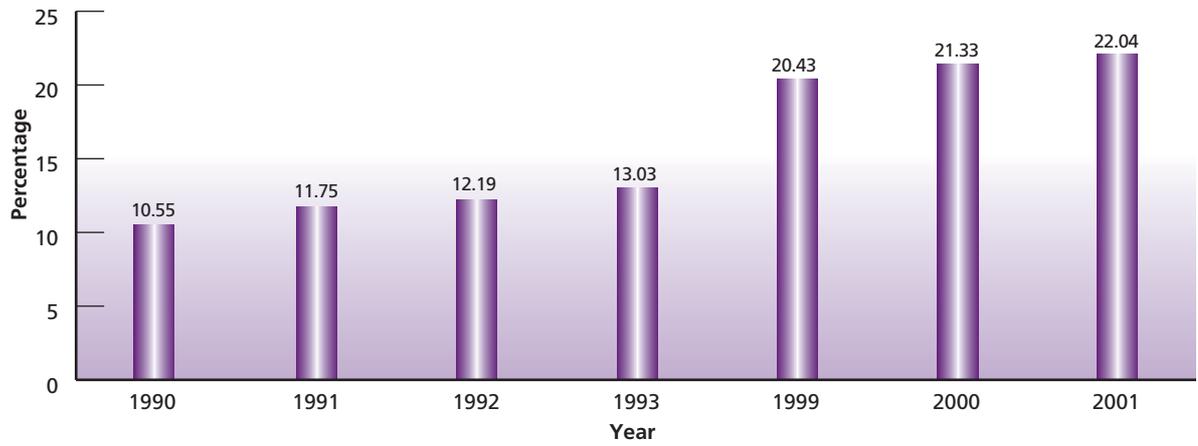
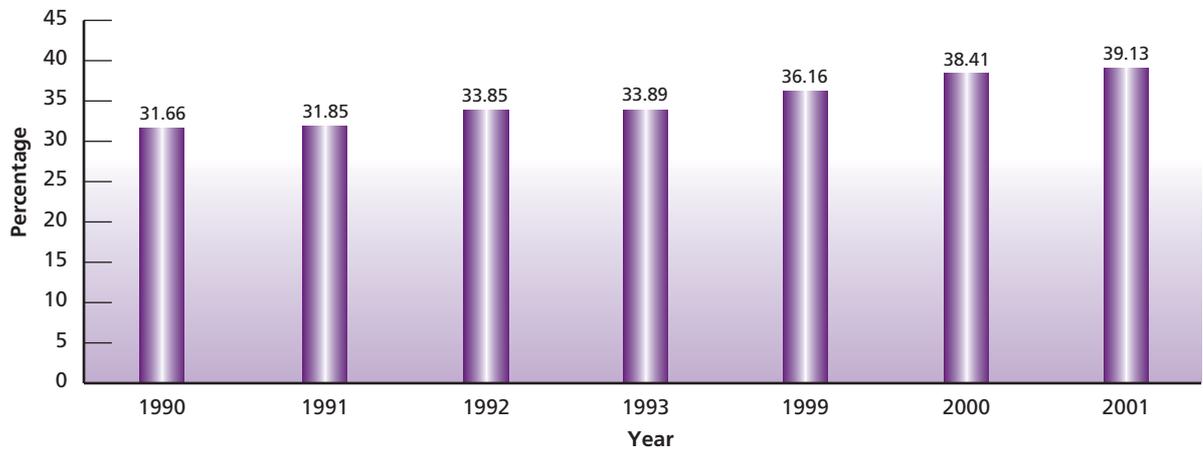
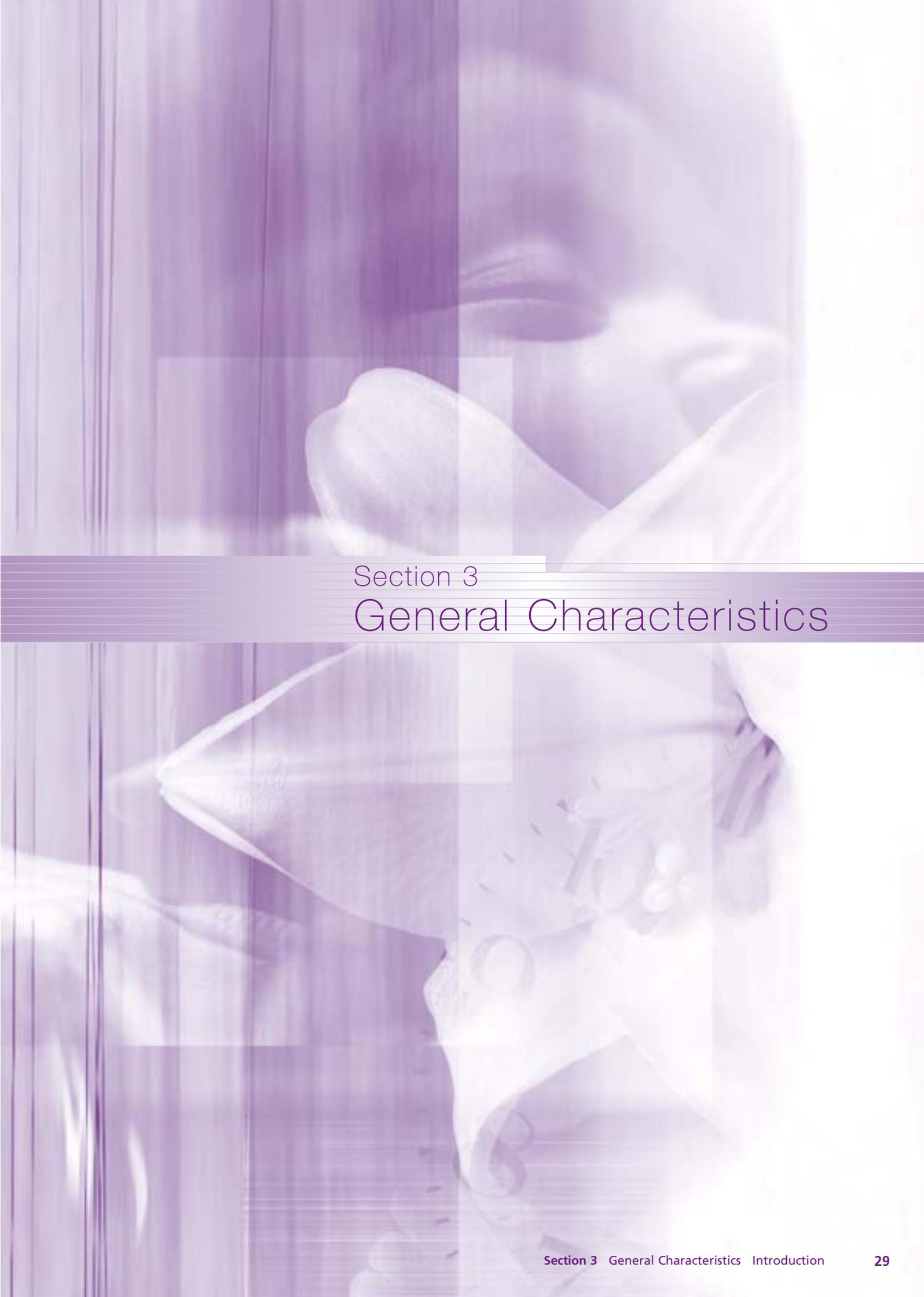


Figure 2.7

Percentage of Mother's Breastfeeding, 1990 - 1993, 1999, 2000 and 2001





Section 3

General Characteristics

This section presents a more detailed analysis of data reported to NPRS for 2001. Part 1 reports on singleton births and Part 2 on multiple births. The tables that follow outline data for live births, stillbirths and early neonatal deaths, together with their corresponding rates. The perinatal mortality rate and adjusted perinatal mortality rate are also outlined in each table. Tables and figures are presented in some detail for a number of variables, including mother's age; marital status; father and mother's occupation; birthweight; health board of residence.

Section 3
General Characteristics

Part 1 Singleton Births

Table 3.1
Age of Mother

Live Births, Stillbirths, Early Neonatal Deaths and Mortality Rates, 2001
Singleton Births

Age of Mother	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR*
Under 15	12	0.0	0	0.0	0	0.0	0.0	0.0
15-19	3,062	5.5	25	8.1	11	3.6	11.7	8.8
20-24	8,219	14.6	44	5.3	20	2.4	7.7	5.9
25-29	13,827	24.6	69	5.0	33	2.4	7.3	5.0
30-34	18,674	33.3	75	4.0	33	1.8	5.8	4.4
35-39	10,415	18.6	69	6.6	24	2.3	8.9	5.7
40-44	1,808	3.2	22	12.0	14	7.7	19.7	10.5
45 and over	79	0.1	1	12.5	0	0.0	12.5	12.5
Not Stated	19	0.0	2	95.2	1	52.6	142.9	142.9
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

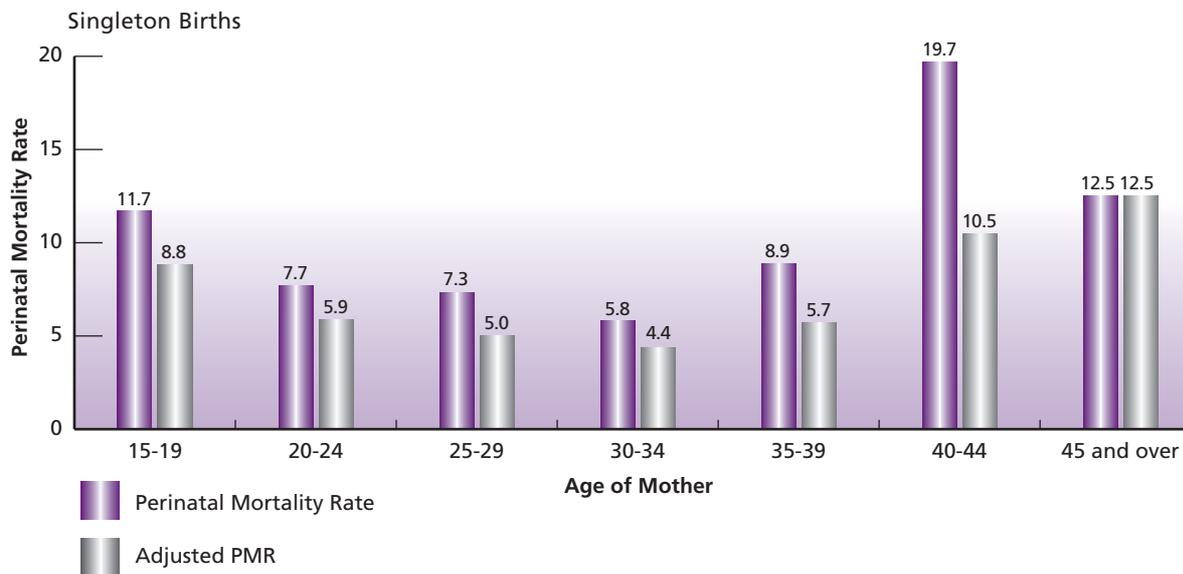
* In this and subsequent tables, 'Adjusted PMR' gives a recalculated perinatal mortality rate which excludes all deaths due to congenital anomalies.

Table 3.2
Maternal Parity

Live Births, Stillbirths, Early Neonatal Deaths and Mortality Rates, 2001
Singleton Births

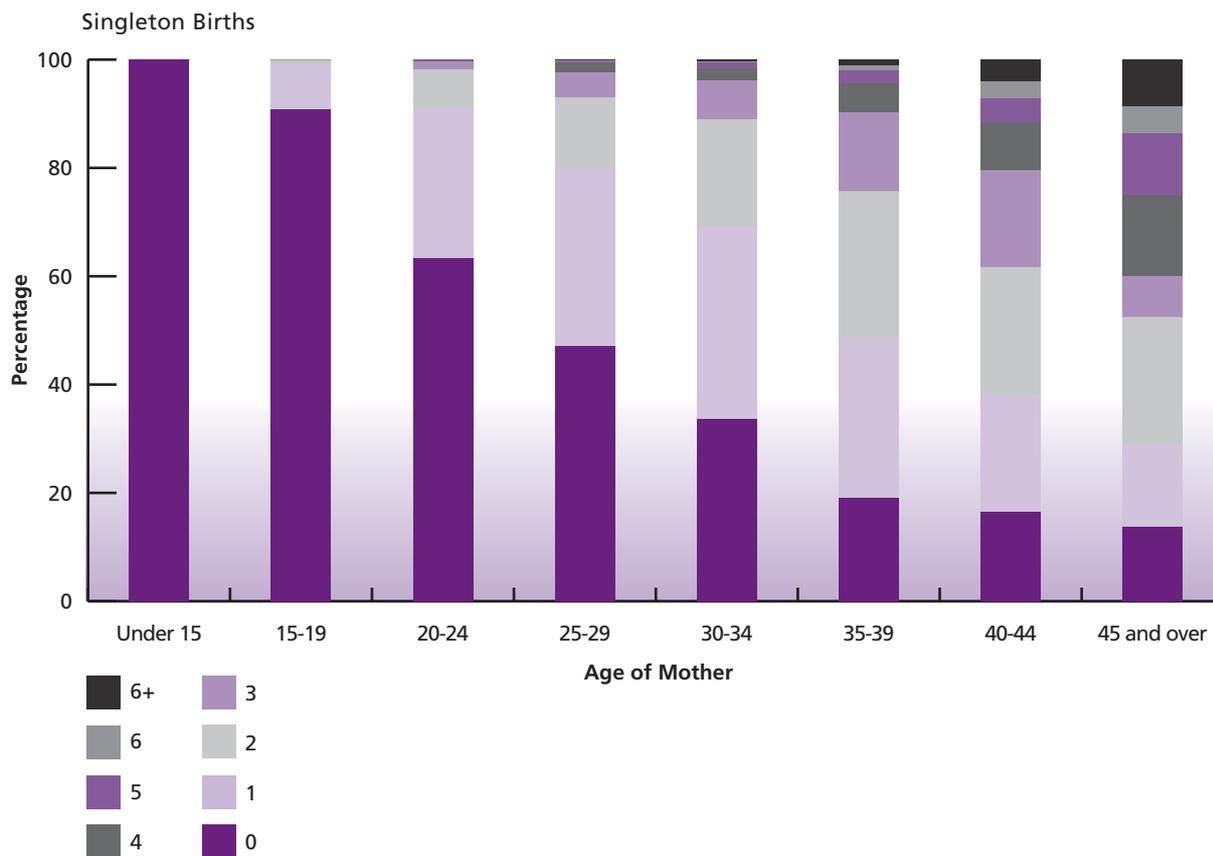
Maternal Parity	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0	23,056	41.1	141	6.1	53	2.3	8.4	6.3
1	17,262	30.8	71	4.1	49	2.8	6.9	4.4
2	9,312	16.6	45	4.8	22	2.4	7.2	5.1
3	3,967	7.1	21	5.3	7	1.8	7.0	4.0
4	1,408	2.5	12	8.5	3	2.1	10.6	7.1
5	592	1.1	5	8.4	1	1.7	10.1	10.1
6	250	0.4	5	19.6	1	4.0	23.5	11.9
More than 6	257	0.5	2	7.7	0	0.0	7.7	7.7
Not Stated	11	0.0	5	312.5	0	0.0	312.5	312.5
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Figure 3.1
Perinatal Mortality Rates by Age of Mother, 2001



Note: See Table 3.1 for data. The adjusted rate excludes all deaths due to congenital anomalies.

Figure 3.2
Percentage Distribution of Parity by Age of Mother, 2001



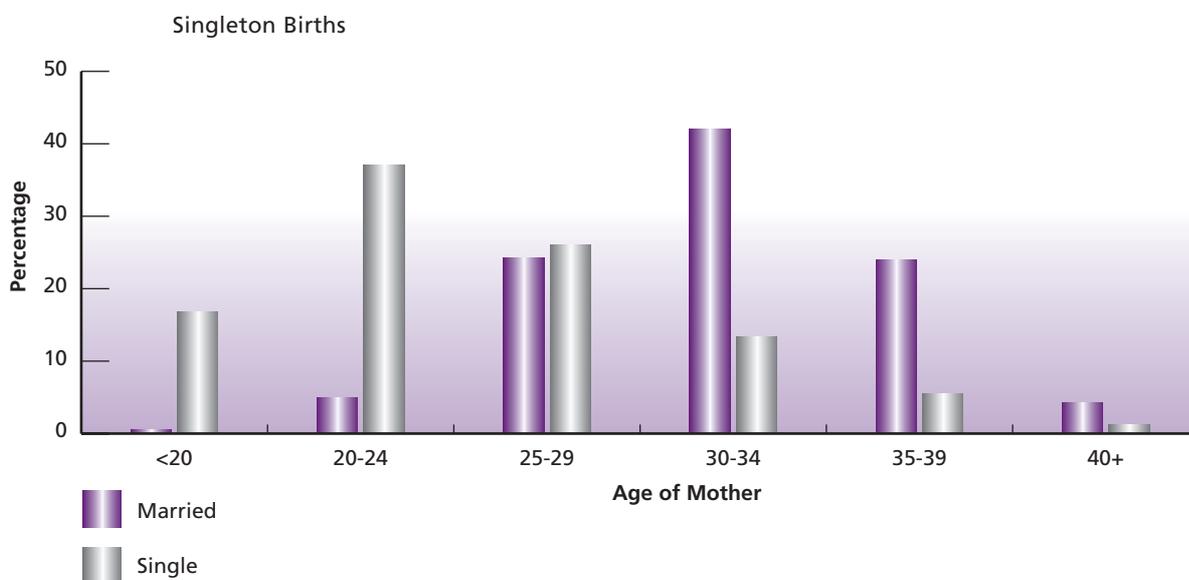
Note: See Appendix E, Table E1 for data. 'Not Stated' data are not included in the calculation of the percentages.

Table 3.3
Marital Status

Live Births, Stillbirths, Early Neonatal Deaths and Mortality Rates, 2001
Singleton Births

Marital Status	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Married	38,219	68.1	189	4.9	80	2.1	7.0	4.7
Single	16,969	30.2	112	6.6	51	3.0	9.5	7.1
Widowed	81	0.1	1	12.2	1	12.3	24.4	24.4
Separated	708	1.3	3	4.2	4	5.6	9.8	7.1
Divorced	135	0.2	1	7.4	0	0.0	7.4	0.0
Not Stated	3	0.0	1	250.0	0	0.0	250.0	250.0
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Figure 3.3
Mother's Age: Percentage Distribution of Singleton Births for Married and Single Status, 2001



Note: See Appendix E, Table E3 for data. 'Not Stated' data are not included in the calculation of the percentages.

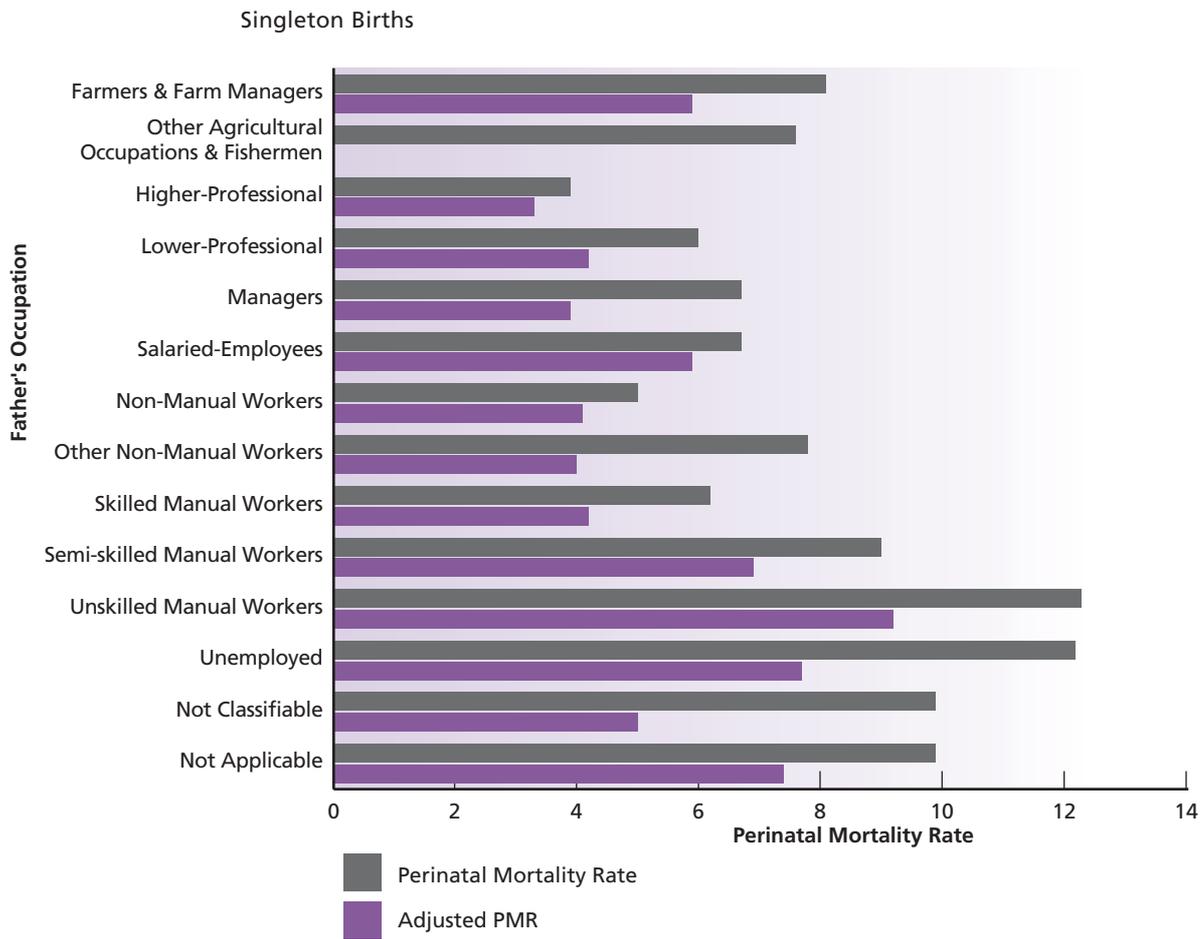
Table 3.4
Father's Occupation

Live Births, Stillbirths, Early Neonatal Deaths and Mortality Rates, 2001
Singleton Births

Father's Occupation	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Farmers & Farm Managers	2,685	4.8	15	5.6	7	2.6	8.1	5.9
Other Agricultural Occupations & Fishermen	522	0.9	2	3.8	2	3.8	7.6	0.0
Higher-Professional	3,871	6.9	12	3.1	3	0.8	3.9	3.3
Lower-Professional	2,142	3.8	9	4.2	4	1.9	6.0	4.2
Managers	4,916	8.8	22	4.5	11	2.2	6.7	3.9
Salaried-Employees	1,345	2.4	6	4.4	3	2.2	6.7	5.9
Non-Manual Workers	4,362	7.8	16	3.7	6	1.4	5.0	4.1
Other Non-Manual Workers	4,951	8.8	27	5.4	12	2.4	7.8	4.0
Skilled Manual Workers	9,122	16.3	38	4.1	19	2.1	6.2	4.2
Semi-skilled Manual Workers	2,883	5.1	17	5.9	9	3.1	9.0	6.9
Unskilled Manual Workers	647	1.2	6	9.2	2	3.1	12.3	9.2
Unemployed	1,545	2.8	13	8.3	6	3.9	12.2	7.7
Not Classifiable	399	0.7	4	9.9	0	0.0	9.9	5.0
Not Applicable	15,719	28.0	107	6.8	50	3.2	9.9	7.4
Not Stated	1,006	1.8	13	12.8	2	2.0	14.7	12.8
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Note: In this table 'Not Classifiable' includes 61 Fathers whose occupation was recorded as 'Home Duties'. See Appendix B for a description of the classification system for occupations.

Figure 3.4
Perinatal Mortality Rates by Father's Occupation, 2001



Note: See Table 3.4 for data. The adjusted rate excludes all deaths due to congenital anomalies.

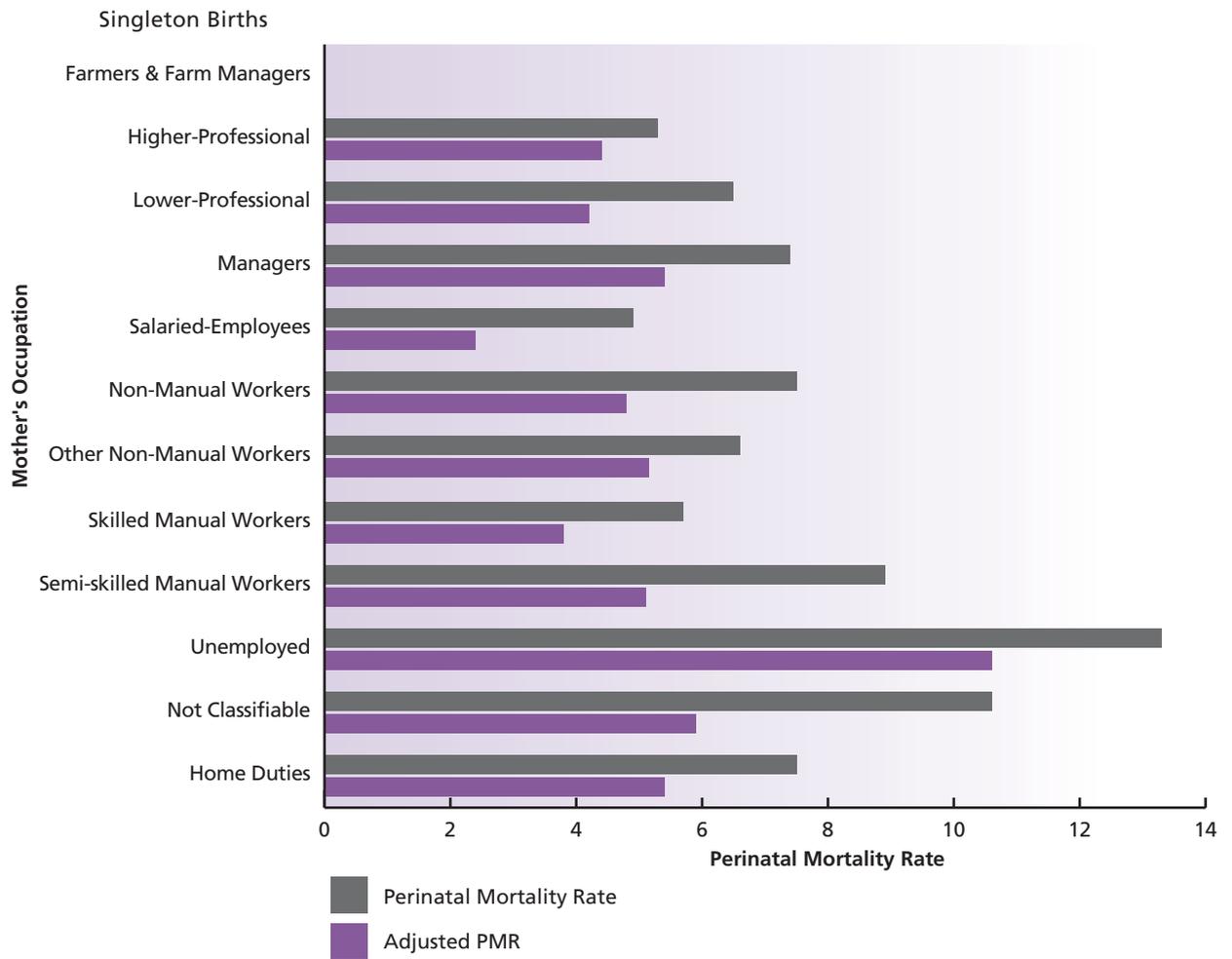
Table 3.5
Mother's Occupation

Live Births, Stillbirths, Early Neonatal Deaths and Mortality Rates, 2001
Singleton Births

Mother's Occupation	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Farmers & Farm Managers	106	0.2	0	0.0	0	0.0	0.0	0.0
Other Agricultural Occupations & Fishermen	60	0.1	0	0.0	0	0.0	0.0	0.0
Higher-Professional	2,264	4.0	10	4.4	2	0.9	5.3	4.4
Lower-Professional	6,241	11.1	24	3.8	17	2.7	6.5	4.2
Managers	2,968	5.3	16	5.4	6	2.0	7.4	5.4
Salaried-Employees	817	1.5	2	2.4	2	2.4	4.9	2.4
Non-Manual Workers	13,599	24.2	73	5.3	29	2.1	7.5	4.8
Other Non-Manual Workers	6,219	11.1	29	4.6	13	2.1	6.7	5.1
Skilled Manual Workers	523	0.9	2	3.8	1	1.9	5.7	3.8
Semi-skilled Manual Workers	3,138	5.6	20	6.3	8	2.5	8.9	5.1
Unskilled Manual Workers	17	0.0	0	0.0	0	0.0	0.0	0.0
Unemployed	2,530	4.5	20	7.8	14	5.5	13.3	10.6
Not Classifiable	1,690	3.0	13	7.6	5	3.0	10.6	5.9
Home Duties	15,081	26.9	79	5.2	35	2.3	7.5	5.4
Not Stated	862	1.5	19	21.6	4	4.6	26.1	26.1
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Note: 'Not Applicable' is not used in the classification of maternal occupation. See Appendix B for a description of the classification system for occupations.

Figure 3.5
Perinatal Mortality Rates by Mother's Occupation, 2001



Note:

- See Table 3.5 for data. The adjusted rate excludes all deaths due to congenital anomalies.
- Categories where rates would be based on < 100 Livebirths are not included in this graph.

Table 3.6**Number of Previous Stillbirths**

(for women having second and subsequent births)

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

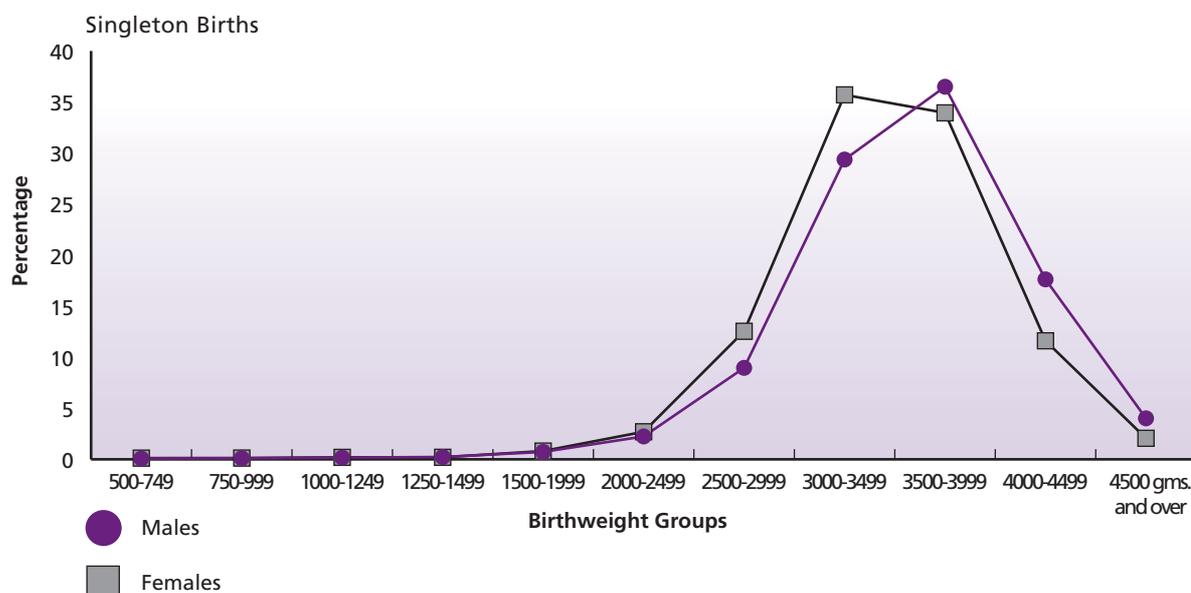
Previous Stillbirths	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0	32,410	98.0	142	4.4	81	2.5	6.9	4.4
1	579	1.8	17	28.5	1	1.7	30.2	25.3
2	46	0.1	2	41.7	1	21.7	62.5	42.6
3 and over	15	0.0	0	0.0	0	0.0	0.0	0.0
Not Stated	9	0.0	5	357.1	0	0.0	357.1	357.1
Total	33,059	100.0	166	5.0	83	2.5	7.5	5.0

Note: Primiparae (i.e. women with no previous live births or stillbirths) are not included in this table.

Table 3.7**Birthweight – All Singleton Births**Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	55	0.1	52	486.0	25	454.5	719.6	687.5
750-999	65	0.1	33	336.7	10	153.8	438.8	402.2
1000-1249	102	0.2	22	177.4	10	98.0	258.1	206.9
1250-1499	121	0.2	19	135.7	8	66.1	192.9	103.2
1500-1999	431	0.8	42	88.8	19	44.1	129.0	72.1
2000-2499	1,382	2.5	33	23.3	14	10.1	33.2	22.9
2500-2999	6,005	10.7	40	6.6	16	2.7	9.3	6.1
3000-3499	18,205	32.4	33	1.8	16	0.9	2.7	1.8
3500-3999	19,773	35.2	21	1.1	11	0.6	1.6	1.2
4000-4499	8,245	14.7	10	1.2	4	0.5	1.7	1.3
4500 and over	1,718	3.1	1	0.6	2	1.2	1.7	0.6
Not Stated	13	0.0	1	71.4	1	76.9	142.9	142.9
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Figure 3.6
Percentage Distribution of Live Births across Birthweight Groups, 2001



Note:

- See Tables 3.8 and 3.9 for data.
- This figure does not include 6 births for which the sex was recorded as 'indeterminate' or 'unknown'.
- 'Not Stated' data are not included in the calculation of percentages.

Table 3.8
Birthweight – Males

Live Births, Stillbirths, Early Neonatal Deaths
 and Mortality Rates, 2001

Singleton Births

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	22	0.1	25	531.9	15	681.8	851.1	837.2
750-999	30	0.1	19	387.8	4	133.3	469.4	434.8
1000-1249	49	0.2	11	183.3	5	102.0	266.7	228.1
1250-1499	66	0.2	8	108.1	5	75.8	175.7	89.6
1500-1999	209	0.7	19	83.3	9	43.1	122.8	78.3
2000-2499	645	2.2	19	28.6	8	12.4	40.7	27.5
2500-2999	2,578	9.0	19	7.3	9	3.5	10.8	7.0
3000-3499	8,450	29.4	19	2.2	8	0.9	3.2	2.2
3500-3999	10,502	36.5	11	1.0	5	0.5	1.5	1.0
4000-4499	5,073	17.6	7	1.4	3	0.6	2.0	1.4
4500 and over	1,155	4.0	0	0.0	2	1.7	1.7	0.0
Not Stated	6	0.0	1	142.9	0	0.0	142.9	142.9
Total	28,785	100.0	158	5.5	73	2.5	8.0	5.7

Note: This table does not include 6 births for which the sex was recorded as 'indeterminate' or 'unknown'.

Table 3.9
Birthweight – Females

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

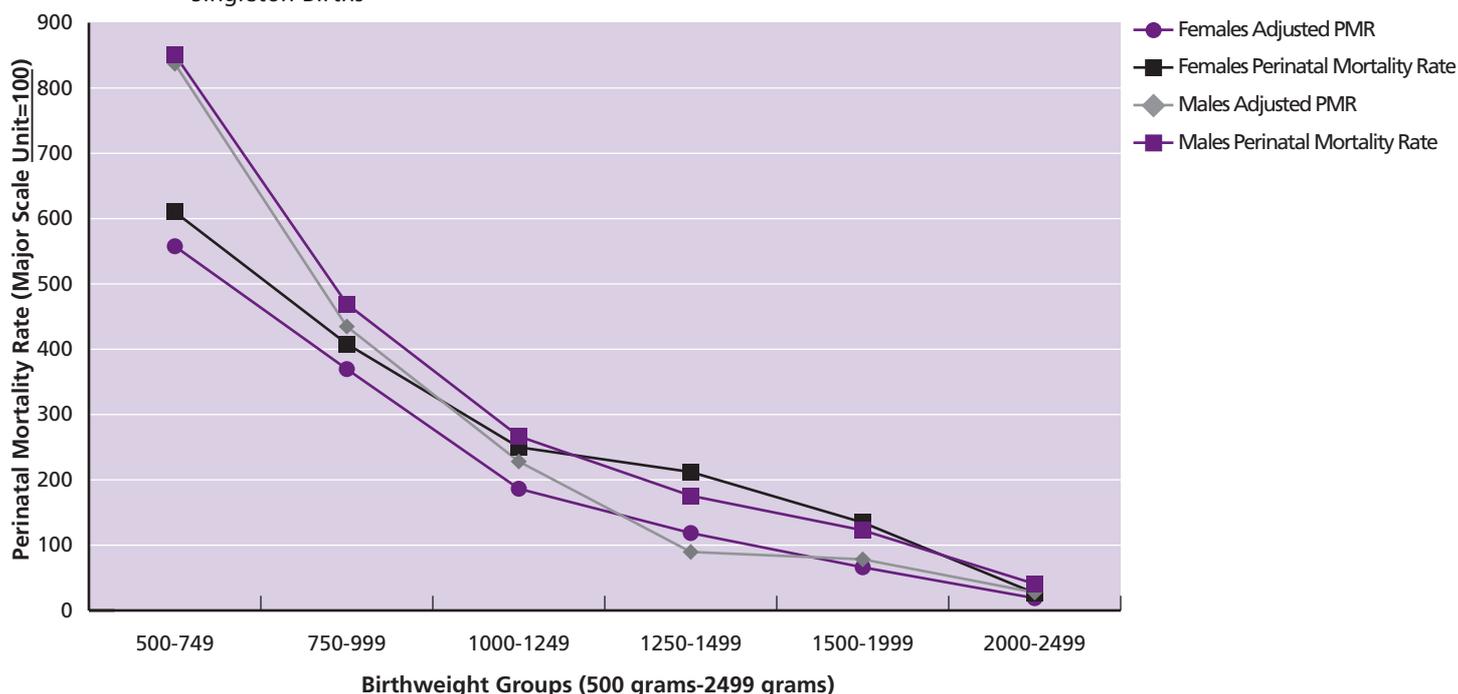
Singleton Births

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	33	0.1	26	440.7	10	303.0	610.2	557.7
750-999	35	0.1	14	285.7	6	171.4	408.2	369.6
1000-1249	53	0.2	11	171.9	5	94.3	250.0	186.4
1250-1499	55	0.2	11	166.7	3	54.5	212.1	118.6
1500-1999	222	0.8	23	93.9	10	45.0	134.7	66.1
2000-2499	737	2.7	14	18.6	6	8.1	26.6	18.8
2500-2999	3,427	12.5	21	6.1	7	2.0	8.1	5.5
3000-3499	9,753	35.7	14	1.4	8	0.8	2.3	1.4
3500-3999	9,271	33.9	9	1.0	6	0.6	1.6	1.3
4000-4499	3,172	11.6	3	0.9	1	0.3	1.3	1.3
4500 and over	563	2.1	1	1.8	0	0.0	1.8	1.8
Not Stated	5	0.0	0	0.0	1	200.0	200.0	200.0
Total	27,326	100.0	147	5.4	63	2.3	7.6	5.3

Note: This table does not include 6 births for which the sex was recorded as 'indeterminate' or 'unknown'.

Figure 3.7 (A)
Perinatal Mortality Rates for Males and Females by Birthweight (500g – 2499g), 2001

Singleton Births



Note:

- See Tables 3.8 and 3.9 for data.

- This figure does not include 6 births for which the sex was recorded as 'indeterminate' or 'unknown'.

Figure 3.7 (B)
Perinatal Mortality Rates for Males and Females by Birthweight (2500g – 4500g and over), 2001

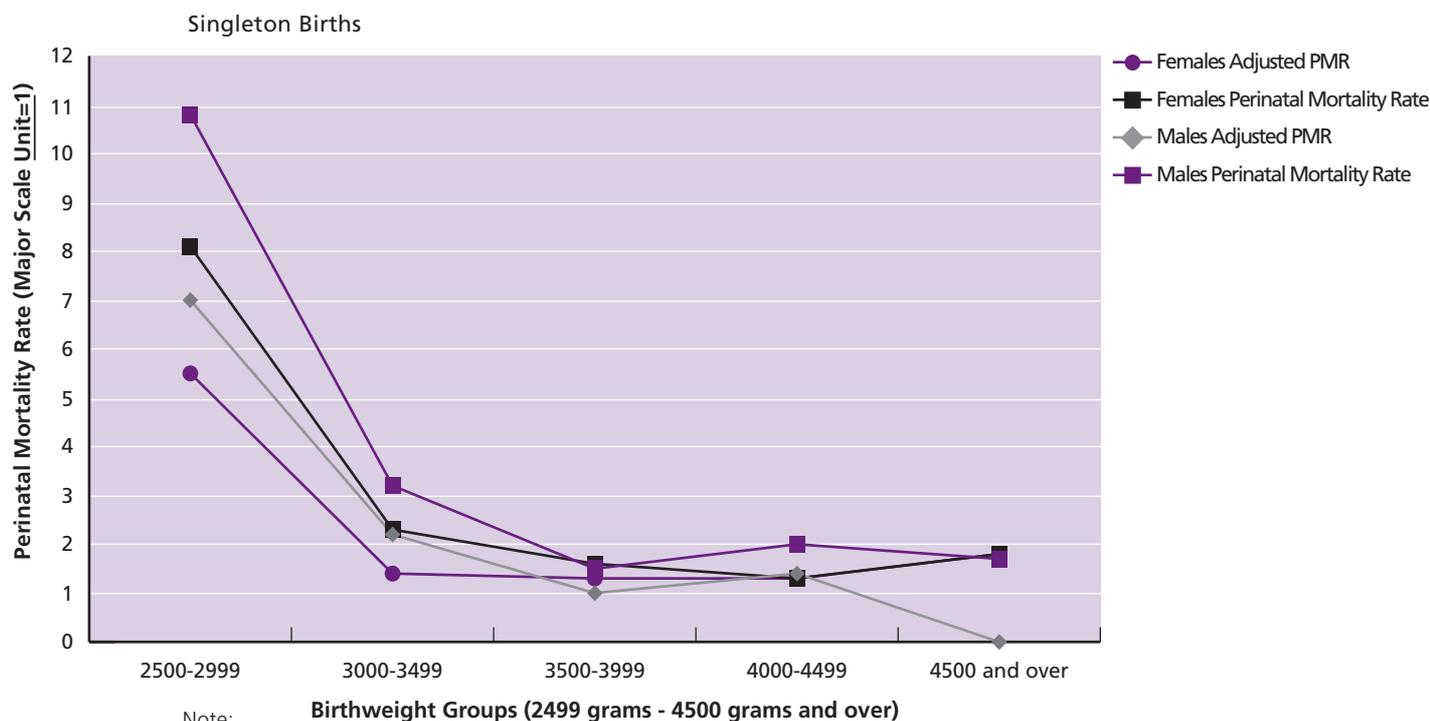


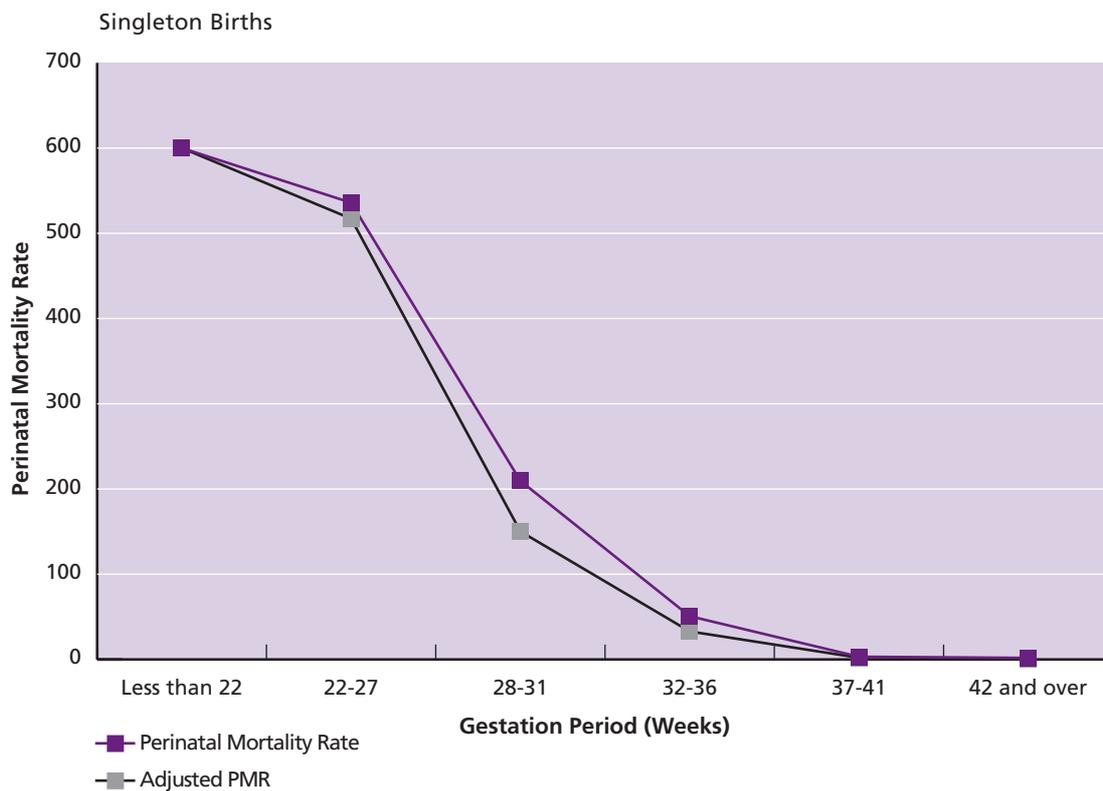
Table 3.10
Gestation Period at Delivery

Live Births, Stillbirths, Early Neonatal Deaths
 and Mortality Rates, 2001

Singleton Births

Gestation Period (weeks)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Less than 22	3	0.0	2	400.0	1	333.3	600.0	600.0
22-27	121	0.2	60	331.5	37	305.8	535.9	517.2
28-31	266	0.5	49	155.6	17	63.9	209.5	150.2
32-36	2,029	3.6	78	37.0	29	14.3	50.8	32.9
37-41	50,256	89.6	113	2.2	50	1.0	3.2	2.0
42 and over	3,392	6.0	4	1.2	2	0.6	1.8	0.6
Not Stated	48	0.1	1	20.4	0	0.0	20.4	20.4
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Figure 3.8
Perinatal Mortality Rates by Gestation Period, 2001



Note: See Table 3.10 for data.

Table 3.11
Interval in Years since Last Birth

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Interval since last birth	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
No Previous Births	23,056	41.1	141	6.1	53	2.3	8.4	6.3
1 year or less	571	1.0	5	8.7	4	7.0	15.6	10.5
>1 year to 2 years	7,463	13.3	27	3.6	24	3.2	6.8	4.3
>2 years to 3 years	8,399	15.0	33	3.9	11	1.3	5.2	3.7
>3 years to 4 years	5,504	9.8	26	4.7	15	2.7	7.4	4.9
>4 years to 5 years	3,504	6.2	15	4.3	8	2.3	6.5	4.3
>5 years to 6 years	2,160	3.8	9	4.1	3	1.4	5.5	3.7
More than 6 years	4,952	8.8	36	7.2	18	3.6	10.8	6.6
Number of Previous Births Unknown	9	0.0	5	357.1	0	0.0	357.1	357.1
Not Stated	497	0.9	10	19.7	0	0.0	19.7	17.8
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Table 3.12
Month of Birth

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Month of Birth	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
January	4,651	8.3	29	6.2	16	3.4	9.6	7.1
February	4,198	7.5	24	5.7	7	1.7	7.3	6.2
March	4,599	8.2	23	5.0	6	1.3	6.3	4.3
April	4,542	8.1	19	4.2	11	2.4	6.6	4.2
May	4,739	8.4	29	6.1	12	2.5	8.6	5.3
June	4,533	8.1	28	6.1	7	1.5	7.7	6.1
July	5,037	9.0	24	4.7	11	2.2	6.9	4.4
August	4,942	8.8	21	4.2	11	2.2	6.4	4.6
September	4,940	8.8	28	5.6	16	3.2	8.9	5.7
October	4,773	8.5	31	6.5	9	1.9	8.3	5.2
November	4,601	8.2	19	4.1	19	4.1	8.2	5.6
December	4,559	8.1	32	7.0	11	2.4	9.4	7.9
Unknown	1	0.0	0	0.0	0	0.0	0.0	0.0
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Table 3.13
Mother's Health Board of Residence

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Mother's Health Board of Residence	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Eastern	21,251	37.9	119	5.6	55	2.6	8.1	6.0
Midland	3,351	6.0	23	6.8	8	2.4	9.2	7.1
Mid-Western	4,295	7.7	21	4.9	8	1.9	6.7	5.8
North-Eastern	5,191	9.3	27	5.2	12	2.3	7.5	4.6
North-Western	2,890	5.2	17	5.8	8	2.8	8.6	5.2
South-Eastern	6,461	11.5	41	6.3	15	2.3	8.6	4.9
Southern	7,728	13.8	29	3.7	23	3.0	6.7	4.1
Western	4,903	8.7	29	5.9	7	1.4	7.3	6.1
Other	42	0.1	0	0.0	0	0.0	0.0	0.0
Unknown	3	0.0	1	250.0	0	0.0	250.0	250.0
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Note: See Appendix D for the classification system employed for county of residence.

Section 3
General Characteristics

Part 2 Multiple Births

Table 3.14**Maternities, Twins, Triplets, Quadruplets, Quintuplets and Twinning Rate for 2001**

Births*	Maternities	Sets of Twins	Sets of Triplets	Sets of Quadruplets	Sets of Quintuplets	Twining Rate
58,261	57,330	878	23	1	1	15.3

* Includes stillbirths

Note: In 2001 there were 24 Sets of Triplets and 2 Sets of Quadruplets notified to the NPRS.

Of these 1 Triplet birth and 1 Quadruplet birth weighed <500 grams. In accordance with the WHO guidelines the National Perinatal Dataset includes only births weighing 500 grams or more. Therefore, for the purposes of this report, the number of *complete* sets of Triplets is 23 and the number of *complete* sets of Quadruplets is 1**Table 3.15****Age of Mother**Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Age of Mother	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
15-19	43	2.4	5	104.2	3	69.8	166.7	130.4
20-24	185	10.2	3	16.0	1	5.4	21.3	16.0
25-29	398	22.0	7	17.3	5	12.6	29.6	24.8
30-34	673	37.2	8	11.7	9	13.4	25.0	20.6
35-39	435	24.1	7	15.8	5	11.5	27.1	20.5
40-44	73	4.0	1	13.5	1	13.7	27.0	27.0
Not Stated	0	0.0	1	1000.0	0	0.0	1000.0	1000.0
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

There were no multiple births to Mothers aged <15 years.

Table 3.16
Maternal Parity

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Maternal Parity	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0	777	43.0	16	20.2	19	24.5	44.1	36.8
1	544	30.1	11	19.8	0	0.0	19.8	14.5
2	312	17.3	0	0.0	2	6.4	6.4	0.0
3	102	5.6	3	28.6	1	9.8	38.1	38.1
4	44	2.4	0	0.0	1	22.7	22.7	22.7
5	10	0.6	0	0.0	1	100.0	100.0	100.0
6	10	0.6	0	0.0	0	0.0	0.0	0.0
More than 6	8	0.4	1	111.1	0	0.0	111.1	111.1
Not Stated	0	0.0	1	1000.0	0	0.0	1000.0	1000.0
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 3.17
Marital Status

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Marital Status	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Married	1,393	77.1	20	14.2	14	10.1	24.1	19.9
Single	386	21.4	11	27.7	9	23.3	50.4	38.3
Widowed	6	0.3	0	0.0	0	0.0	0.0	0.0
Separated	21	1.2	0	0.0	1	47.6	47.6	47.6
Divorced	1	0.1	0	0.0	0	0.0	0.0	0.0
Not Stated	0	0.0	1	1000.0	0	0.0	1000.0	1000.0
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 3.18
Father's Occupation

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Father's Occupation	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Farmers & Farm Managers	85	4.7	4	44.9	0	0.0	44.9	34.1
Other Agricultural Occupations & Fishermen	19	1.1	1	50.0	0	0.0	50.0	50.0
Higher-Professional	156	8.6	3	18.9	0	0.0	18.9	18.9
Lower-Professional Managers	94	5.2	0	0.0	0	0.0	0.0	0.0
Managers	199	11.0	3	14.9	4	20.1	34.7	29.9
Salaried-Employees	59	3.3	0	0.0	0	0.0	0.0	0.0
Non-Manual Workers	144	8.0	3	20.4	1	6.9	27.2	20.5
Other Non-Manual Workers	163	9.0	3	18.1	4	24.5	42.2	30.5
Skilled Manual Workers	305	16.9	3	9.7	1	3.3	13.0	9.8
Semi-skilled Manual Workers	104	5.8	1	9.5	3	28.8	38.1	38.1
Unskilled Manual Workers	28	1.5	0	0.0	0	0.0	0.0	0.0
Unemployed	49	2.7	1	20.0	2	40.8	60.0	40.8
Not Classifiable	10	0.6	0	0.0	0	0.0	0.0	0.0
Not Applicable	361	20.0	10	27.0	8	22.2	48.5	38.1
Not Stated	31	1.7	0	0.0	1	32.3	32.3	32.3
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Note: In this table 'Not Classifiable' includes 2 Fathers whose occupation was recorded as 'Home Duties'. See Appendix B for a description of the classification system for occupations.

Table 3.19
Mother's Occupation

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Mother's Occupation	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Farmers & Farm Managers	1	0.1	0	0.0	0	0.0	0.0	0.0
Other Agricultural Occupations & Fishermen	2	0.1	0	0.0	0	0.0	0.0	0.0
Higher-Professional	77	4.3	0	0.0	0	0.0	0.0	0.0
Lower-Professional Managers	247	13.7	3	12.0	5	20.2	32.0	24.2
Salaried-Employees	94	5.2	5	50.5	1	10.6	60.6	60.6
Non-Manual Workers	31	1.7	0	0.0	0	0.0	0.0	0.0
Other Non-Manual Workers	456	25.2	9	19.4	4	8.8	28.0	21.6
Skilled Manual Workers	199	11.0	2	10.0	3	15.1	24.9	20.0
Semi-skilled Manual Workers	19	1.1	0	0.0	0	0.0	0.0	0.0
Unemployed	85	4.7	3	34.1	0	0.0	34.1	23.0
Not Classifiable	50	2.8	0	0.0	1	20.0	20.0	0.0
Home Duties	21	1.2	1	45.5	2	95.2	136.4	136.4
Not Stated	502	27.8	8	15.7	8	15.9	31.4	25.6
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Note: 'Not Applicable' is not used in the classification of maternal occupation. See Appendix B for a description of the classification system for occupations.

Table 3.20
Number of Previous Stillbirths
 (for women having second and subsequent births)

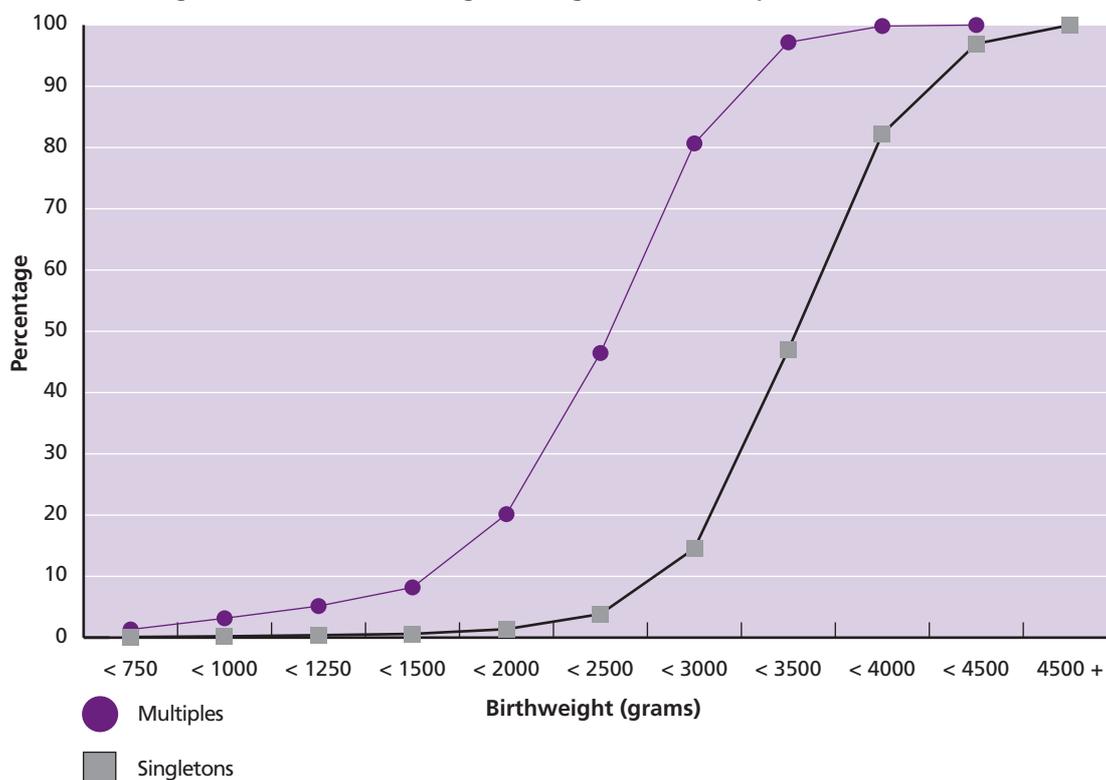
Live Births, Stillbirths, Early Neonatal Deaths
 and Mortality Rates, 2001

Multiple Births

Previous Stillbirths	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Rate Mortality	Adjusted PMR
0	994	96.5	14	13.9	4	4.0	17.9	13.0
1	34	3.3	0	0.0	1	29.4	29.4	29.4
2	2	0.2	0	0.0	0	0.0	0.0	0.0
3 and over	0	0.0	1	1000.0	0	0.0	1000.0	1000.0
Not Stated	0	0.0	1	1000.0	0	0.0	1000.0	1000.0
Total	1,030	100.0	16	15.3	5	4.9	20.1	15.4

Note: Primiparae (i.e. women with no previous live births or stillbirths) are not included in this table.

Figure 3.9
Birthweights: Cumulative Percentages of Singleton and Multiple Live Births, 2000



Note: Data are compiled from Tables 3.7 and 3.21.

Table 3.21
Birthweight – All Multiple Births

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	24	1.3	9	272.7	10	416.7	575.8	548.4
750-999	33	1.8	4	108.1	8	242.4	324.3	285.7
1000-1249	36	2.0	5	122.0	1	27.8	146.3	125.0
1250-1499	55	3.0	1	17.9	1	18.2	35.7	18.2
1500-1999	216	12.0	7	31.4	1	4.6	35.9	31.5
2000-2499	475	26.3	2	4.2	1	2.1	6.3	0.0
2500-2999	618	34.2	3	4.8	1	1.6	6.4	6.4
3000-3499	298	16.5	1	3.3	1	3.4	6.7	3.4
3500-3999	48	2.7	0	0.0	0	0.0	0.0	0.0
4000-4499	3	0.2	0	0.0	0	0.0	0.0	0.0
Not Stated	1	0.1	0	0.0	0	0.0	0.0	0.0
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 3.22
Birthweight – Males

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	15	1.7	3	166.7	8	533.3	611.1	562.5
750-999	20	2.2	3	130.4	4	200.0	304.3	272.7
1000-1249	17	1.9	2	105.3	0	0.0	105.3	105.3
1250-1499	28	3.1	0	0.0	0	0.0	0.0	0.0
1500-1999	92	10.2	4	41.7	1	10.9	52.1	42.1
2000-2499	229	25.4	1	4.3	1	4.4	8.7	0.0
2500-2999	298	33.0	1	3.3	0	0.0	3.3	3.3
3000-3499	164	18.2	0	0.0	1	6.1	6.1	0.0
3500-3999	37	4.1	0	0.0	0	0.0	0.0	0.0
4000-4499	3	0.3	0	0.0	0	0.0	0.0	0.0
Total	903	100.0	14	15.3	15	16.6	31.6	24.2

Note: This table does not include 2 births for which the sex was recorded as 'indeterminate' or 'unknown'.

Table 3.23
Birthweight – Females

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	9	1.0	6	400.0	2	222.2	533.3	533.3
750-999	13	1.4	1	71.4	4	307.7	357.1	307.7
1000-1249	19	2.1	3	136.4	1	52.6	181.8	142.9
1250-1499	27	3.0	0	0.0	1	37.0	37.0	37.0
1500-1999	124	13.7	3	23.6	0	0.0	23.6	23.6
2000-2499	246	27.2	1	4.0	0	0.0	4.0	0.0
2500-2999	320	35.4	2	6.2	1	3.1	9.3	9.3
3000-3499	134	14.8	1	7.4	0	0.0	7.4	7.4
3500-3999	11	1.2	0	0.0	0	0.0	0.0	0.0
Total	903	100.0	17	18.5	9	10.0	28.3	25.1

Note: This table does not include 2 births for which the sex was recorded as 'indeterminate' or 'unknown'.

Table 3.24
Gestation Period at Delivery

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Gestation Period (weeks)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
22-27	57	3.2	12	173.9	16	280.7	405.8	397.1
28-31	100	5.5	4	38.5	4	40.0	76.9	49.5
32-36	626	34.6	13	20.3	4	6.4	26.6	15.8
37-41	1,022	56.6	3	2.9	0	0.0	2.9	2.9
42 and over	2	0.1	0	0.0	0	0.0	0.0	0.0
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 3.25
Interval in Years since Last Birth

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Interval since last birth	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
No Previous Births	777	43.0	16	20.2	19	24.5	44.1	36.8
1 year or less	35	1.9	0	0.0	0	0.0	0.0	0.0
>1 year to 2 years	219	12.1	5	22.3	1	4.6	26.8	18.0
>2 years to 3 years	267	14.8	2	7.4	0	0.0	7.4	7.4
>3 years to 4 years	182	10.1	4	21.5	2	11.0	32.3	27.0
>4 years to 5 years	116	6.4	2	16.9	1	8.6	25.4	17.1
>5 years to 6 years	58	3.2	1	16.9	0	0.0	16.9	0.0
More than 6 years	129	7.1	1	7.7	0	0.0	7.7	7.7
Number of Previous Births Unknown	0	0.0	1	1000.0	0	0.0	1000.0	1000.0
Not Stated	24	1.3	0	0.0	1	41.7	41.7	41.7
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 3.26
Month of Birth

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Month of Birth	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
January	144	8.0	3	20.4	0	0.0	20.4	20.4
February	111	6.1	3	26.3	2	18.0	43.9	26.8
March	150	8.3	3	19.6	0	0.0	19.6	6.6
April	144	8.0	0	0.0	2	13.9	13.9	13.9
May	158	8.7	2	12.5	1	6.3	18.8	12.6
June	165	9.1	2	12.0	5	30.3	41.9	41.9
July	145	8.0	2	13.6	2	13.8	27.2	27.2
August	166	9.2	4	23.5	1	6.0	29.4	17.9
September	151	8.4	5	32.1	1	6.6	38.5	38.5
October	150	8.3	2	13.2	1	6.7	19.7	13.2
November	178	9.9	4	22.0	6	33.7	54.9	49.7
December	145	8.0	2	13.6	3	20.7	34.0	20.7
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 3.27
Mother's Health Board of Residence

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Mother's Health Board of Residence	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Eastern	796	44.1	10	12.4	13	16.3	28.5	26.1
Midland	101	5.6	4	38.1	2	19.8	57.1	57.1
Mid-Western	115	6.4	1	8.6	0	0.0	8.6	8.6
North-Eastern	157	8.7	2	12.6	0	0.0	12.6	12.6
North-Western	80	4.4	1	12.3	1	12.5	24.7	12.5
South-Eastern	196	10.8	5	24.9	4	20.4	44.8	30.3
Southern	226	12.5	6	25.9	4	17.7	43.1	22.0
Western	133	7.4	3	22.1	0	0.0	22.1	22.1
Other	2	0.1	0	0.0	0	0.0	0.0	0.0
Unknown	1	0.1	0	0.0	0	0.0	0.0	0.0
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Note: See Appendix D for the classification system employed for county of residence.



Section 4
Perinatal Care

Section 4 Perinatal Care

Introduction

This section presents a detailed review on aspects of perinatal care for the mother and infant. Part 1 reports on singleton births and Part 2 on multiple births. The tables that follow outline data for live births, stillbirths and early neonatal deaths, together with their corresponding rates. The perinatal mortality rate and adjusted perinatal mortality rate are also outlined in each table. Tables and figures are presented in some detail for a number of variables, including type of antenatal care; mother's length of stay; method of delivery; mother's immunity to rubella; type of feeding.

Section 4 Perinatal Care

Part 1 Singleton Births

Section 4 Perinatal Care

Part 1 Singleton Births

Table 4.1
Type of Antenatal Care

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Type of Antenatal Care	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Hospital/Obstetrician	14,183	25.3	78	5.5	48	3.4	8.8	5.9
General Practitioner Only	104	0.2	2	18.9	0	0.0	18.9	9.5
Hospital and G.P. Combined	41,243	73.5	209	5.0	81	2.0	7.0	4.9
None	450	0.8	16	34.3	7	15.6	49.4	45.3
Midwife Only	104	0.2	0	0.0	0	0.0	0.0	0.0
Unknown	31	0.1	2	60.6	0	0.0	60.6	60.6
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

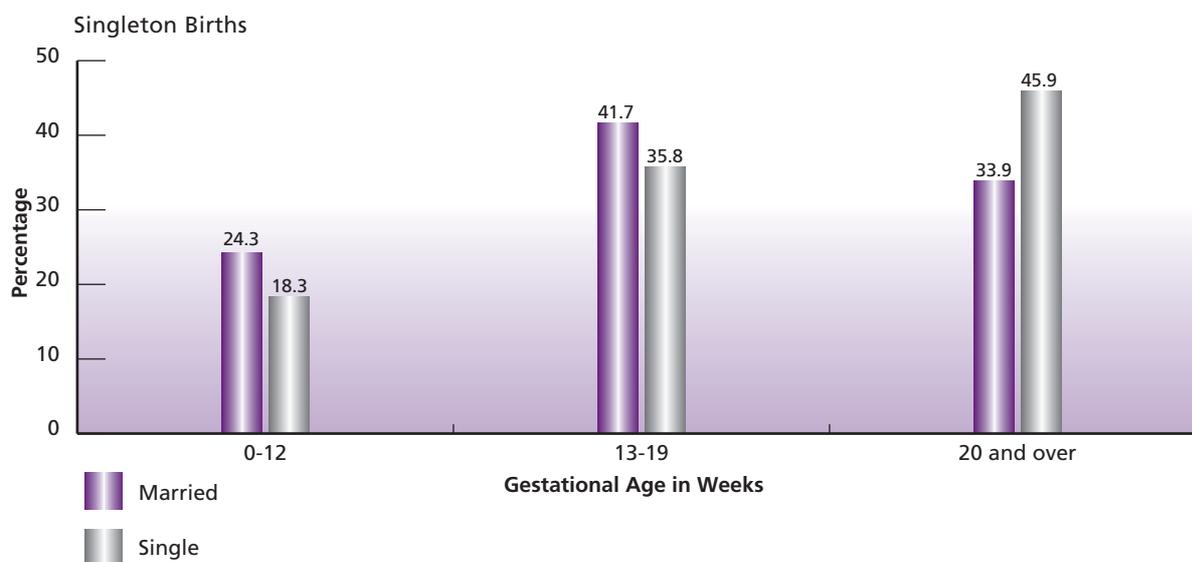
Table 4.2
Time of First visit to Doctor or Hospital during Pregnancy

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Time of First Visit (Weeks)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0-12	11,768	21.0	53	4.5	26	2.2	6.7	4.8
13-19	20,893	37.2	107	5.1	51	2.4	7.5	5.1
20 and over	19,887	35.4	121	6.0	46	2.3	8.3	5.8
Not Stated	3,567	6.4	26	7.2	13	3.6	10.9	8.9
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Figure 4.1
Percentage Distribution of Time of First Visit to Doctor or Hospital by Marital Status, 2001



Note: See Appendix E, Table E11 for data. 'Not Stated' data are not included in the calculation of percentages.

Table 4.3
Mother's Length of Stay in Hospital Prior to Delivery

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Antenatal Length of Stay (Days)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0-1 Days	49,391	88.4	236	4.8	102	2.1	6.8	4.8
2 Days	3,094	5.5	29	9.3	7	2.3	11.5	8.4
3-5 Days	1,912	3.4	24	12.4	15	7.8	20.1	13.0
6-8 Days	615	1.1	7	11.3	5	8.1	19.3	14.5
9-11 Days	248	0.4	1	4.0	1	4.0	8.0	8.0
12-14 Days	143	0.3	2	13.8	1	7.0	20.7	13.9
2 weeks or more	440	0.8	6	13.5	5	11.4	24.7	20.3
Not Stated	30	0.1	1	32.3	0	0.0	32.3	32.3
Total	55,873	100.0	306	5.4	136	2.4	7.9	5.5

Note:

- 'Not Stated' includes 20 births where place of birth was recorded as domiciliary but birth was registered by a hospital. Mother was not admitted under a planned community midwife scheme, therefore, dates of mother's length of stay were not applicable.
- Domiciliary births, of which there were 243, are excluded from this table. See Appendix G for detailed analysis.

Table 4.4
Mother's Length of Stay in Hospital After Delivery

Live Births, Stillbirths, Early Neonatal Deaths
 and Mortality Rates, 2001

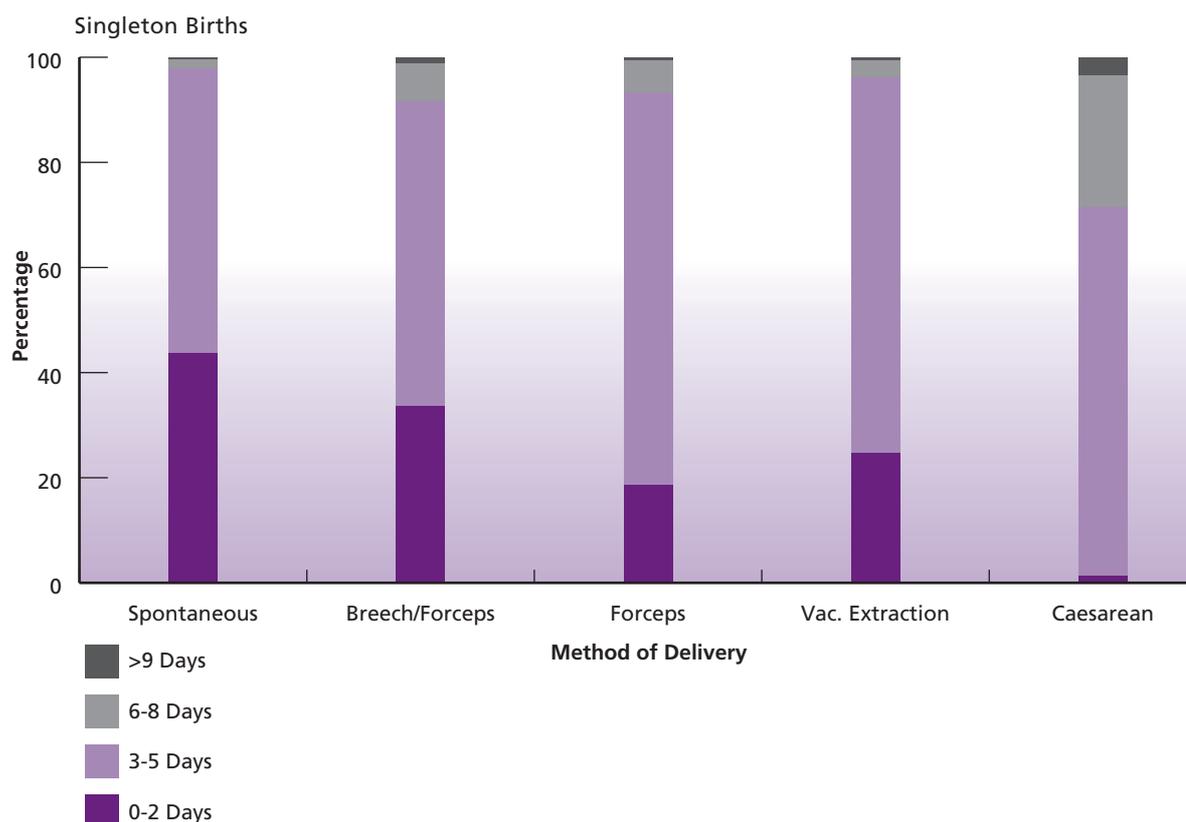
Singleton Births

Postnatal Length of Stay (Days)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0-1 Days	4,112	7.4	160	37.5	44	10.7	47.8	35.6
2 Days	13,477	24.1	84	6.2	33	2.4	8.6	6.3
3-5 Days	33,656	60.2	45	1.3	47	1.4	2.7	1.6
6-8 Days	3,967	7.1	12	3.0	12	3.0	6.0	4.5
9-11 Days	443	0.8	0	0.0	0	0.0	0.0	0.0
12-14 Days	104	0.2	0	0.0	0	0.0	0.0	0.0
2 weeks or more	83	0.1	3	34.9	0	0.0	34.9	23.5
Not Stated	31	0.1	2	60.6	0	0.0	60.6	60.6
Total	55,873	100.0	306	5.4	136	2.4	7.9	5.5

Note:

- 'Not Stated' includes 20 births where place of birth was recorded as domiciliary but birth was registered by a hospital. Mother was not admitted under a planned community midwife scheme, therefore, dates of mother's length of stay were not applicable.
- Domiciliary births, of which there were 243, are excluded from this table. See Appendix G for detailed analysis.

Figure 4.2
Mother's Postnatal Length of Stay: Cumulative Percentages by Method of Delivery, 2001



Note: Data are compiled from Appendix E, Table E9. 'Not Stated' data are not included in the calculation of percentages.

Table 4.5
Method of Delivery

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Method of Delivery	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Spontaneous	36,072	64.3	234	6.4	62	1.7	8.2	6.0
Breech/Forceps	206	0.4	32	134.5	12	58.3	184.9	133.9
Forceps	1,802	3.2	4	2.2	1	0.6	2.8	2.2
Vac. Extraction	6,015	10.7	10	1.7	4	0.7	2.3	2.0
Caesarean	11,811	21.0	22	1.9	54	4.6	6.4	3.4
Other specified & Combined	199	0.4	5	24.5	3	15.1	39.2	39.2
Not Stated	10	0.0	0	0.0	0	0.0	0.0	0.0
Total	56,115	100.0	307	5.4	136	2.4	7.9	5.5

Table 4.6
Advance Hospital Bookings

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Advance Hospital Bookings	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Booked	54,955	98.4	275	5.0	123	2.2	7.2	5.0
Not Booked	907	1.6	31	33.0	13	14.3	46.9	37.7
Not Stated	11	0.0	0	0.0	0	0.0	0.0	0.0
Total	55,873	100.0	306	5.4	136	2.4	7.9	5.5

Note:

- 'Not Stated' includes 8 births where place of birth was recorded as domiciliary but birth was registered by a hospital. Mother was not admitted under a planned community midwife scheme, therefore, hospital bookings were not applicable.
- Domiciliary births, of which there were 243, are excluded from this table. See Appendix G for detailed analysis.

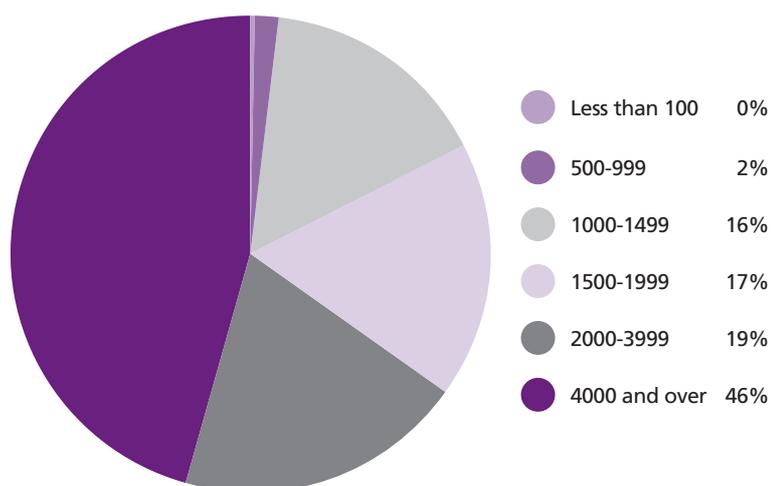
Table 4.7
Size of Maternity Unit (number of live births and stillbirths annually)

Live Births, Stillbirths, Early Neonatal Deaths
 and Mortality Rates, 2001

Size of Maternity Unit	Number of Hospitals	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Less than 100	8	156	0.3	3	18.9	1	6.4	25.2	19.0
500-999	1	934	1.6	6	6.4	4	4.3	10.6	6.4
1000-1499	7	9,001	15.6	52	5.7	17	1.9	7.6	5.2
1500-1999	6	10,025	17.4	57	5.7	24	2.4	8.0	5.7
2000-3999	4	11,225	19.5	59	5.2	30	2.7	7.9	5.4
4000 and over	4	26,337	45.7	161	6.1	84	3.2	9.2	6.8
Total	30	57,678	100.0	338	5.8	160	2.8	8.6	6.1

Note: This table includes multiple births but excludes domiciliary births of which there were 245 in total.

Figure 4.3
Percentage of Live Births by Size of Maternity Unit, 2001



Note: See Table 4.7 for data. The size of unit refers to the number of live births and stillbirths occurring annually.

Table 4.8
Inter-Hospital Transfer of Infants

Live Births, Early Neonatal Deaths
and Mortality Rates, 2001

Singleton Births

Infant Transfers	Live Births	Per Cent (%) Live Births	Early Neonatal Deaths	Early Neonatal Rate
Transferred	334	0.6	9	26.9
Not Transferred	55,522	99.4	127	2.3
Not Stated	17	0.0	0	0.0
Total	55,873	100.0	136	2.4

Note:

- 'Not Stated' includes 10 births where place of birth was recorded as domiciliary but birth was registered by a hospital. Mother was not admitted under a planned community midwife scheme, therefore, transfer indicators were not applicable.
- Domiciliary births, of which there were 243, are excluded from this table. See Appendix G for detailed analysis.

Table 4.9
Rubella: Immune Status of Mother
Numbers and Percentages, 2001

Singleton Births

Rubella	Frequency	Per Cent (%)
Immune	49,028	86.9
Not Immune	1,913	3.4
Unknown	5,481	9.7
Total	56,422	100.0

Table 4.10
Age of Mother by Infant's Type of Feeding
Numbers and Percentages, 2001

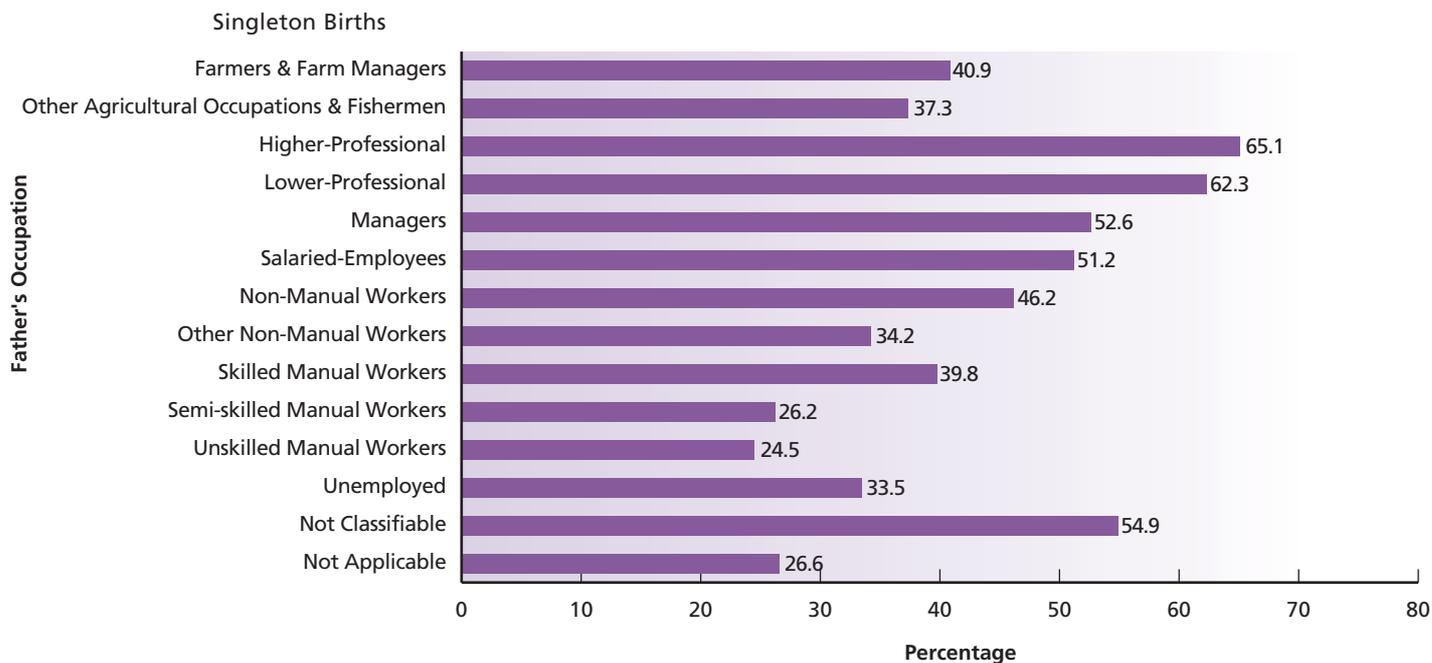
Singleton Births

Age of Mother	Type of Feeding				
	Artificial	Breast	Combined	Not Stated	Total
Under 15	11	1	0	0	12
	91.67	8.33	0.00	0.00	
	0.03	0.00	0.00	0.00	0.02
15-19	2,448	553	50	11	3,062
	79.95	18.06	1.63	0.36	
	7.50	2.51	3.72	9.09	5.46
20-24	5,788	2,245	173	13	8,219
	70.42	27.31	2.10	0.16	
	17.74	10.19	12.86	10.74	14.65
25-29	8,297	5,147	353	30	13,827
	60.01	37.22	2.55	0.22	
	25.43	23.37	26.25	24.79	24.64
30-34	9,893	8,283	465	33	18,674
	52.98	44.36	2.49	0.18	
	30.32	37.61	34.57	27.27	33.28
35-39	5,215	4,920	261	19	10,415
	50.07	47.24	2.51	0.18	
	15.98	22.34	19.41	15.70	18.56
40-44	921	832	42	13	1,808
	50.94	46.02	2.32	0.72	
	2.82	3.78	3.12	10.74	3.22
45 and over	43	35	1	0	79
	54.43	44.30	1.27	0.00	
	0.13	0.16	0.07	0.00	0.14
Not Stated	11	6	0	2	19
	57.89	31.58	0.00	10.53	
	0.03	0.03	0.00	1.65	0.03
Total	32,627	22,022	1,345	121	56,115
	58.14	39.24	2.40	0.22	100.00

Note:

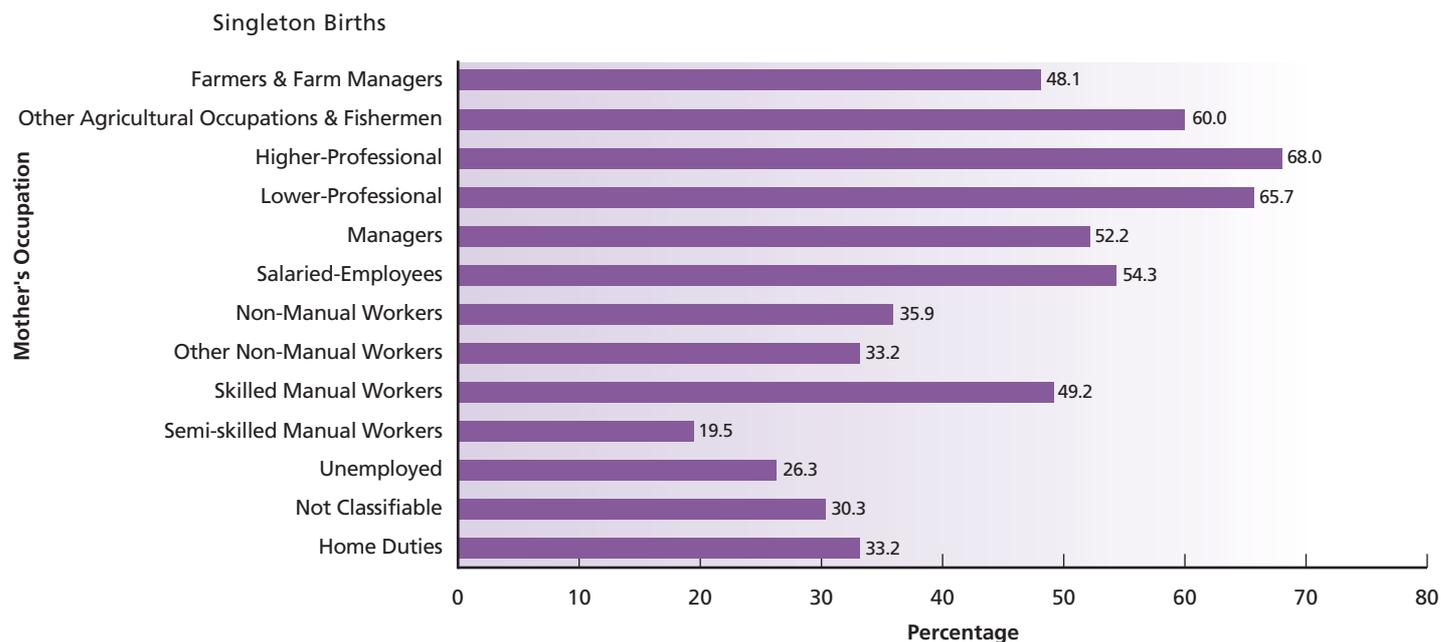
- See Appendix E for an explanation of the table format.
- 'Not Stated' contains 90 Early Neonatal Deaths for which Type of Feeding was not stated.

Figure 4.4
Percentage of Mothers Breastfeeding by Father's Occupation, 2001



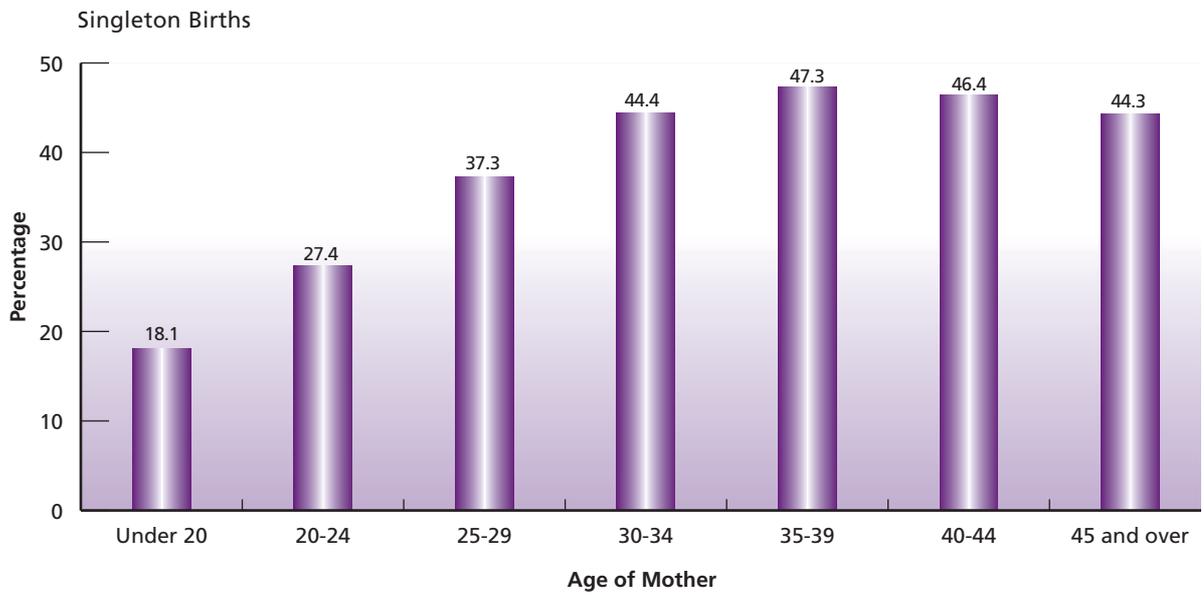
Note: Data are compiled from Appendix E, Table E17. 'Not Stated' data are not included in the calculation of percentages.

Figure 4.5
Percentage of Mothers Breastfeeding by Mother's Occupation, 2001



Note:
 - Data are compiled from Appendix E, Table E18. 'Not Stated' data are not included in the calculation of percentages.
 - Categories where percentages would be based on <50 births are not included in this graph.

Figure 4.6
Percentage of Mothers Breastfeeding by Age of Mother, 2001



Note: See Table 4.10 for data. 'Not Stated' data are not included in the calculation of percentages.

Section 4 Perinatal Care

Part 2 Multiple Births

Section 4 Perinatal Care

Part 2 Multiple Births

Table 4.11
Type of Antenatal Care

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Type of Antenatal Care	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Hospital/Obstetrician General Practitioner Only	726	40.2	6	8.2	14	19.3	27.3	23.3
Hospital and G.P. Combined	4	0.2	0	0.0	1	250.0	250.0	250.0
None	1,056	58.4	26	24.0	8	7.6	31.4	24.2
Midwife Only	19	1.1	0	0.0	1	52.6	52.6	52.6
Total	2	0.1	0	0.0	0	0.0	0.0	0.0
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 4.12
Time of First Visit to Doctor or Hospital during Pregnancy

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Time of First Visit (Weeks)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0-12	385	21.3	2	5.2	2	5.2	10.3	7.8
13-19	689	38.1	17	24.1	10	14.5	38.2	31.4
20 and over	604	33.4	13	21.1	11	18.2	38.9	31.0
Not Stated	129	7.1	0	0.0	1	7.8	7.8	7.8
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 4.13
Mother's Length of Stay in Hospital Prior to Delivery

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Antenatal Length of Stay (Days)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0-1 Days	1,349	74.7	25	18.2	19	14.1	32.0	27.1
2 Days	99	5.5	0	0.0	1	10.1	10.1	0.0
3-5 Days	143	7.9	1	6.9	1	7.0	13.9	13.9
6-8 Days	73	4.0	2	26.7	1	13.7	40.0	40.0
9-11 Days	52	2.9	2	37.0	1	19.2	55.6	19.2
12-14 Days	22	1.2	0	0.0	0	0.0	0.0	0.0
2 weeks or more	67	3.7	2	29.0	1	14.9	43.5	29.4
Total	1,805	100.0	32	17.4	24	13.3	30.5	24.6

Note: Domiciliary births, of which there were 2, are excluded from this table. See Appendix G for detailed analysis.

Table 4.14
Mother's Length of Stay in Hospital After Delivery

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

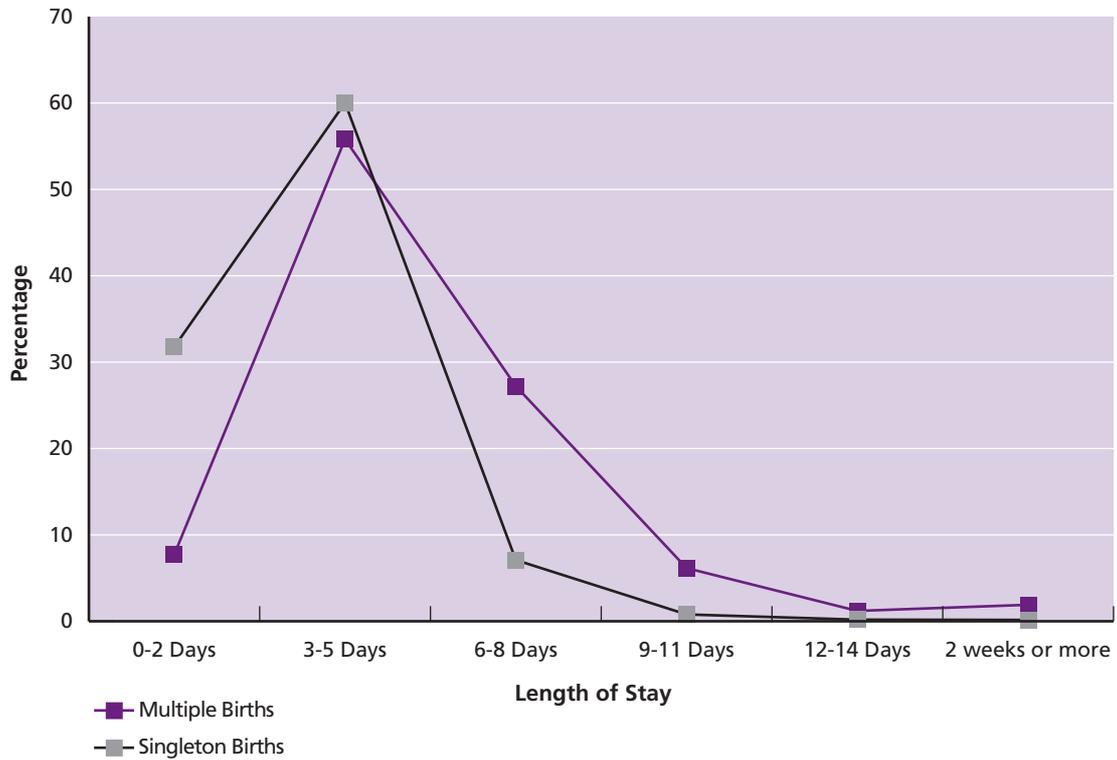
Multiple Births

Postnatal Length of Stay (Days)	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
0-1 Days	20	1.1	2	90.9	2	100.0	181.8	181.8
2 Days	110	6.1	10	83.3	5	45.5	125.0	117.6
3-5 Days	1,012	56.1	13	12.7	11	10.9	23.4	17.7
6-8 Days	493	27.3	7	14.0	5	10.1	24.0	18.1
9-11 Days	113	6.3	0	0.0	1	8.8	8.8	0.0
12-14 Days	22	1.2	0	0.0	0	0.0	0.0	0.0
2 weeks or more	35	1.9	0	0.0	0	0.0	0.0	0.0
Total	1,805	100.0	32	17.4	24	13.3	30.5	24.6

Note: Domiciliary births, of which there were 2, are excluded from this table. See Appendix G for detailed analysis.

Figure 4.7

Percentage Distribution of Births by Mother's Postnatal Length of Stay in Days, 2001



Note: Includes stillbirths. See Tables 4.4 and 4.14 for data. 'Not Stated' data are not included in the calculation of percentages.

Table 4.15

Method of Delivery

Live Births, Stillbirths, Early Neonatal Deaths and Mortality Rates, 2001

Multiple Births

Method of Delivery	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Spontaneous	539	29.8	7	12.8	10	18.6	31.1	29.4
Breech/Forceps	87	4.8	4	44.0	5	57.5	98.9	88.9
Forceps	49	2.7	0	0.0	1	20.4	20.4	0.0
Vac. Extraction	153	8.5	0	0.0	0	0.0	0.0	0.0
Caesarean	953	52.7	18	18.5	8	8.4	26.8	19.7
Other specified & Combined	26	1.4	3	103.4	0	0.0	103.4	71.4
Total	1,807	100.0	32	17.4	24	13.3	30.5	24.6

Table 4.16
Advance Hospital Bookings

Live Births, Stillbirths, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Advance Hospital Bookings	Live Births	Per Cent (%) Live Births	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
Booked	1,740	96.4	27	15.3	19	10.9	26.0	19.9
Not Booked	65	3.6	5	71.4	5	76.9	142.9	142.9
Total	1,805	100.0	32	17.4	24	13.3	30.5	24.6

Note: Domiciliary births, of which there were 2, are excluded from this table. See Appendix G for detailed analysis.

Table 4.17
Inter Hospital Transfer of Infants

Live Births, Early Neonatal Deaths
and Mortality Rates, 2001

Multiple Births

Infant Transfers	Live Births	Per Cent (%) Live Births	Early Neonatal Deaths	Early Neonatal Rate
Transferred	48	2.7	2	41.7
Not Transferred	1,757	97.3	22	12.5
Total	1,805	100.0	24	13.3

Note: Domiciliary births, of which there were 2, are excluded from this table. See Appendix G for detailed analysis.

Table 4.18
Rubella: Immune Status of Mother
Numbers and Percentages, 2001

Multiple Births

Rubella	Frequency	Per Cent (%)
Immune	1,532	83.3
Not Immune	47	2.6
Unknown	260	14.1
Total	1,839	100.0

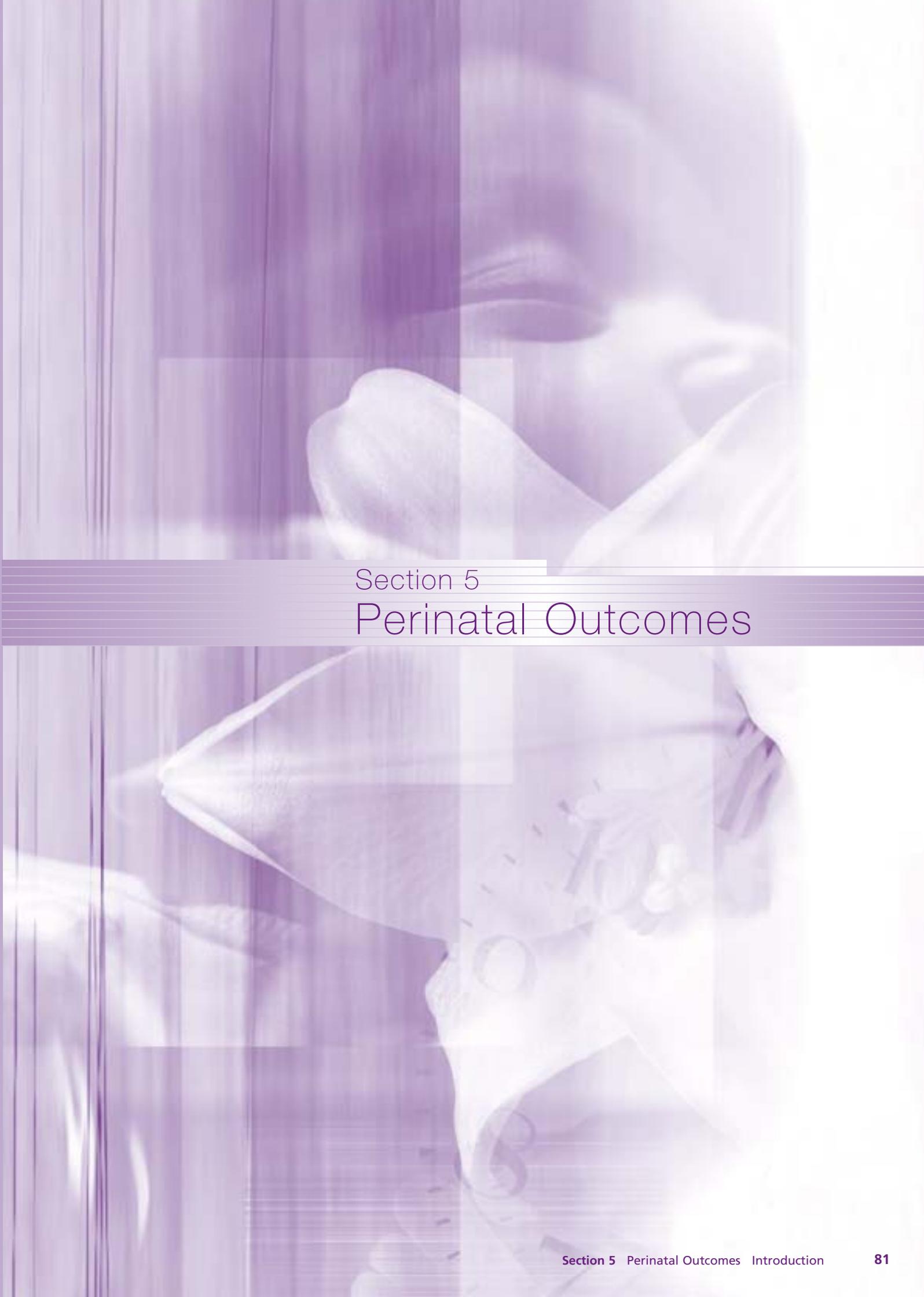
Table 4.19
Age of Mother by Infant's Type of Feeding
Numbers and Percentages, 2001

Multiple Births

Age of Mother Frequency Row Per Cent Col. Per Cent	Type of Feeding				
	Artificial	Breast	Combined	Not Stated	Total
15-19	30 69.77 2.47	10 23.26 2.18	3 6.98 2.52	0 0.00 0.00	43 2.38
20-24	146 78.92 12.01	35 18.92 7.64	2 1.08 1.68	2 1.08 14.29	185 10.24
25-29	268 67.34 22.04	102 25.63 22.27	26 6.53 21.85	2 0.50 14.29	398 22.03
30-34	448 66.57 36.84	182 27.04 39.74	40 5.94 33.61	3 0.45 21.43	673 37.24
35-39	280 64.37 23.03	108 24.83 23.58	41 9.43 34.45	6 1.38 42.86	435 24.07
40-44	44 60.27 3.62	21 28.77 4.59	7 9.59 5.88	1 1.37 7.14	73 4.04
Total	1,216 67.29	458 25.35	119 6.59	14 0.77	1,807 100.00

Note:

- See Appendix E for an explanation of the table format.
- 'Not Stated' contains 12 Early Neonatal Deaths for which Type of Feeding was not stated.



Section 5
Perinatal Outcomes

Section 5 Perinatal Outcomes

Introduction

This section presents a detailed review on aspects of perinatal outcomes for the infant. Part 1 reports on singleton births and Part 2 on multiple births. Cause of death are examined in greater detail according to the guidelines set out by the World Health Organisation in the ninth revision of the International Classification of Diseases. The tables that follow outline data for live births, antepartum and intrapartum stillbirths and early neonatal deaths, together with their corresponding rates. Mortality numbers and rates are presented by birthweight and cause of death. Age at death for early neonatal deaths and post-mortem analysis are also outlined.

Section 5
Perinatal Outcomes

Part 1 Singleton Births

Section 5 Perinatal Outcomes

Part 1 Singleton Births

Table 5.1
Live Births, Antepartum and Intrapartum Stillbirths, Early Neonatal Deaths
and Mortality Rates by Birthweight, 2001

Singleton Births

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Ante-partum Stillbirths	Intra-partum Stillbirths	Not Stated	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	55	0.1	36	8	8	486.0	25	454.5	719.6	687.5
750-999	65	0.1	23	2	8	336.7	10	153.8	438.8	402.2
1000-1249	102	0.2	17	3	2	177.4	10	98.0	258.1	206.9
1250-1499	121	0.2	14	0	5	135.7	8	66.1	192.9	103.2
1500-1999	431	0.8	28	1	13	88.8	19	44.1	129.0	72.1
2000-2499	1,382	2.5	23	0	10	23.3	14	10.1	33.2	22.9
2500-2999	6,005	10.7	29	3	8	6.6	16	2.7	9.3	6.1
3000-3499	18,205	32.4	27	4	2	1.8	16	0.9	2.7	1.8
3500-3999	19,773	35.2	12	7	2	1.1	11	0.6	1.6	1.2
4000-4499	8,245	14.7	6	0	4	1.2	4	0.5	1.7	1.3
4500 and over	1,718	3.1	0	1	0	0.6	2	1.2	1.7	0.6
Not Stated	13	0.0	1	0	0	71.4	1	76.9	142.9	142.9
Total	56,115	100.0	216	29	62	5.4	136	2.4	7.9	5.5

Table 5.2
Stillbirths, Early Neonatal Deaths
and Mortality Rates by Cause of Death, 2001

Singleton Births

ICD Codes	Cause of Death	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Total Deaths	Perinatal Mortality Rate
Congenital Anomalies							
740	Anencephalus	9	0.16	10	0.18	19	0.34
741	Spina Bifida	1	0.02	1	0.02	2	0.04
742	Other Central Nervous System Anomalies	7	0.12	9	0.16	16	0.28
743	Other Congenital Anomalies	14	0.25	9	0.16	23	0.41
745	Bulbus Cordis and Septal Closure	2	0.04	0	0.00	2	0.04
746	Other Congenital Anomalies of the Heart	6	0.11	5	0.09	11	0.19
747	Other Congenital Anomalies of Circulatory System	0	0.00	1	0.02	1	0.02
748	Congenital Anomalies of Respiratory System	0	0.00	6	0.11	6	0.11
749.0-751.9	Cleft Palate & Lip, Other Digestive Anomalies	1	0.02	0	0.00	1	0.02
753	Congenital Anomalies of Urinary System	2	0.04	10	0.18	12	0.21
754.0-756.9	Musculoskeletal System	2	0.04	14	0.25	16	0.28
758	Chromosomal Anomalies including Downs Syndrome	13	0.23	10	0.18	23	0.41
Maternal Conditions and Complications in Pregnancy							
760	Maternal Hypertensive Disorders	5	0.09	0	0.00	5	0.09
760.1-761.9	Other Maternal Complications	7	0.12	5	0.09	12	0.21
762.1	Other Placental Separation and Haemorrhage	48	0.85	5	0.09	53	0.94
762.2	Other Morphological and Functional Anomalies of Placenta	19	0.34	0	0.00	19	0.34
762.4	Prolapsed Cord	2	0.04	0	0.00	2	0.04
762.5	Other Compression of Umbilical Cord	28	0.50	0	0.00	28	0.50
762.6-762.9	Other Complications of Placenta, Cord & Membrane	7	0.12	1	0.02	8	0.14
763.1	Other Malpresentation or Disproportion	1	0.02	0	0.00	1	0.02
763.2-763.9	Other Complications of Labour/Delivery	2	0.04	1	0.02	3	0.05
Slow Foetal Growth, Malnutrition & Immaturity							
764	Slow Foetal Growth & Malnutrition	3	0.05	0	0.00	3	0.05
765	Short Gestation and Low Birthweight	15	0.27	20	0.36	35	0.62
Birth Trauma							
767	Birth Trauma	2	0.04	0	0.00	2	0.04
768	Intrauterine Hypoxia/Anoxia	25	0.44	3	0.05	28	0.50
769	Respiratory Distress Syndrome	0	0.00	2	0.04	2	0.04
770	Respiratory Conditions of Foetus/Newborn	7	0.12	7	0.12	14	0.25
Other Foetal and Neonatal Conditions							
771	Perinatal Infections	8	0.14	2	0.04	10	0.18
772	Neonatal/Foetal Haemorrhage	3	0.05	2	0.04	5	0.09
773	Haemolytic Diseases	2	0.04	0	0.00	2	0.04
778	Integument and Temperature Regulation	2	0.04	2	0.04	4	0.07
Maceration, ill-Defined Conditions and All other Causes							
779.9	Maceration	8	0.14	0	0.00	8	0.14
780-796,799	Symptoms, Signs, and Ill-Defined Conditions	51	0.90	2	0.04	53*	0.94
0-139.9	Infectious Diseases	0	0.00	1	0.02	1	0.02
460-519.9	Respiratory Diseases	1	0.02	0	0.00	1	0.02
	All Other Causes	4	0.07	8	0.14	12	0.21
Total		307	5.44	136	2.42	443	7.85

* Note: The significant increase in this category, compared with the previous year, is due to the absence of information on Principal Diagnosis in relation to 20 Stillbirths in one hospital.

Table 5.3
Perinatal Mortality, Numbers and Rates, by Birthweight and Cause of Death, 2001

Singleton Births

Birthweight (grams)	Anencephalus		Spina Bifida		Other Central Nervous System Abnormalities		Congenital Anomalies of the Heart		Chromosomal Anomalies		Other Congenital Anomalies	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
500-749	4	37.4	0	0.0	0	0.0	1	9.3	4	37.4	2	18.7
750-999	3	30.6	0	0.0	0	0.0	1	10.2	1	10.2	1	10.2
1000-1249	3	24.2	0	0.0	0	0.0	0	0.0	2	16.1	3	24.2
1250-1499	2	14.3	0	0.0	0	0.0	2	14.3	2	14.3	8	57.1
1500-1999	3	6.3	1	2.1	4	8.5	2	4.2	6	12.7	13	27.5
2000-2499	1	0.7	1	0.7	0	0.0	1	0.7	4	2.8	8	5.7
2500-2999	3	0.5	0	0.0	2	0.3	4	0.7	2	0.3	8	1.3
3000-3499	0	0.0	0	0.0	4	0.2	2	0.1	2	0.1	8	0.4
3500-3999	0	0.0	0	0.0	4	0.2	0	0.0	0	0.0	5	0.3
4000-4499	0	0.0	0	0.0	0	0.0	1	0.1	0	0.0	2	0.2
4500 and over	0	0.0	0	0.0	2	1.2	0	0.0	0	0.0	0	0.0
Not Stated	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	19	0.3	2	0.0	16	0.3	14	0.2	23	0.4	58	1.0

Table 5.3 Continued
Perinatal Mortality, Numbers and Rates, by Birthweight and Cause of Death, 2001

Singleton Births

Birthweight (grams)	Maternal Complications		Placenta, Cord, Membranes		Other Complications of Labour		Slow Foetal Growth		Birth Trauma		Hypoxia/Anoxia	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
500-749	8	74.8	18	168.2	1	9.3	20	186.9	0	0.0	7	65.4
750-999	2	20.4	6	61.2	0	0.0	6	61.2	0	0.0	6	61.2
1000-1249	2	16.1	6	48.4	1	8.1	3	24.2	1	8.1	4	32.3
1250-1499	1	7.1	4	28.6	0	0.0	2	14.3	0	0.0	3	21.4
1500-1999	0	0.0	14	29.6	0	0.0	3	6.3	0	0.0	2	4.2
2000-2499	2	1.4	14	9.9	0	0.0	2	1.4	0	0.0	4	2.8
2500-2999	0	0.0	18	3.0	0	0.0	1	0.2	0	0.0	6	1.0
3000-3499	0	0.0	15	0.8	2	0.1	0	0.0	0	0.0	5	0.3
3500-3999	1	0.1	11	0.6	0	0.0	0	0.0	0	0.0	4	0.2
4000-4499	1	0.1	4	0.5	0	0.0	0	0.0	1	0.1	3	0.4
4500 and over	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not Stated	0	0.0	0	0.0	0	0.0	1	71.4	0	0.0	0	0.0
Total	17	0.3	110	1.9	4	0.1	38	0.7	2	0.0	44	0.8

Table 5.3 Continued

Perinatal Mortality, Numbers and Rates, by Birthweight and Cause of Death, 2001

Singleton Births

Birthweight (grams)	Perinatal Infections		Foetal/Neonatal Haemorrhage		Haemolytic Disease		Metabolic, Endocrine Disturbances		Integument, Temperature Regulations		Maceration	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
500-749	2	18.7	1	9.3	0	0.0	0	0.0	0	0.0	1	9.3
750-999	4	40.8	0	0.0	1	10.2	0	0.0	0	0.0	2	20.4
1000-1249	0	0.0	1	8.1	0	0.0	0	0.0	0	0.0	1	8.1
1250-1499	0	0.0	0	0.0	1	7.1	0	0.0	0	0.0	0	0.0
1500-1999	0	0.0	0	0.0	0	0.0	0	0.0	1	2.1	2	4.2
2000-2499	1	0.7	1	0.7	0	0.0	0	0.0	2	1.4	1	0.7
2500-2999	1	0.2	0	0.0	0	0.0	0	0.0	1	0.2	1	0.2
3000-3499	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
3500-3999	1	0.1	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0
4000-4499	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
4500 and over	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not Stated	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	10	0.2	5	0.1	2	0.0	0	0.0	4	0.1	8	0.1

Table 5.3 Continued

Perinatal Mortality, Numbers and Rates, by Birthweight and Cause of Death, 2001

Singleton Births

Birthweight (grams)	Symptoms, Signs and Ill-Defined Conditions		All Other Causes		Not Stated		All Causes of Perinatal Mortality	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
500-749	6	56.1	2	18.7	0	0.0	77	719.6
750-999	8	81.6	2	20.4	0	0.0	43	438.8
1000-1249	5	40.3	0	0.0	0	0.0	32	258.1
1250-1499	2	14.3	0	0.0	0	0.0	27	192.9
1500-1999	9	19.0	1	2.1	0	0.0	61	129.0
2000-2499	4	2.8	1	0.7	0	0.0	47	33.2
2500-2999	6	1.0	3	0.5	0	0.0	56	9.3
3000-3499	9	0.5	2	0.1	0	0.0	49	2.7
3500-3999	1	0.1	3	0.2	0	0.0	32	1.6
4000-4499	2	0.2	0	0.0	0	0.0	14	1.7
4500 and over	0	0.0	0	0.0	0	0.0	3	1.7
Not Stated	1	71.4	0	0.0	0	0.0	2	142.9
Total	53	0.9	14	0.2	0	0.0	443	7.9

Note: See Appendix C for a list of the International Classification of Disease codes corresponding to each cause of death.

Table 5.4
Age at Death
Early Neonatal Deaths, 2001

Singleton Births

Time		Frequency	Per Cent
Completed Hours	<1	29	21.3
	1	25	18.4
	2	6	4.4
	3	3	2.2
	4	6	4.4
	5	2	1.5
	6	3	2.2
	7	1	0.7
	8	1	0.7
	9	1	0.7
	11	2	1.5
	12	2	1.5
	14	1	0.7
	16	1	0.7
	18	1	0.7
	20	1	0.7
Total under 1 Day		85	62.5
Days	1	18	13.2
	2	12	8.8
	3	6	4.4
	4	3	2.2
	5	4	2.9
	6	3	2.2
Total under 1 Week		46	33.8
Unknown		5	3.7
Total		136	100.0

Table 5.5
Percentage Distribution of Live Births
by Infant's Length of Stay in Hospital, 2001

Singleton Births

Infant's Length of Stay (Days)	Live Births	Per Cent (%) Live Births
0-2	17,275	31.0
3-5	32,649	58.6
6-10	4,447	8.0
11-28	920	1.7
29 or more	381	0.7
Not Stated	65	0.1
Total	55,737	100.0

- This table does not include domiciliary births and early neonatal deaths.
 - 'Not Stated' includes 20 births where place of birth was recorded as domiciliary but birth was registered by a hospital. Mother and infant were not admitted under a planned community midwife scheme therefore infant's length of stay was not applicable.

Table 5.6
Percentage of Stillbirths and Early Neonatal Deaths
undergoing Post-Mortem Examinations, 2001

Singleton Births

Post-Mortem Frequency Row Per Cent Col. Per Cent	Type of Death		
	Early Neonatal Deaths	Stillbirths	Total
Post-Mortem	49	148	197
	24.87	75.13	
	36.03	48.21	44.47
No Post-Mortem	82	141	223
	36.77	63.23	
	60.29	45.93	50.34
Not Stated	5	18	23
	21.74	78.26	
	3.68	5.86	5.19
Total	136	307	443
	30.70	69.30	100.00

Note: See Appendix E for an explanation of the table format.

Section 5
Perinatal Outcomes

Part 2 Multiple Births

Section 5 Perinatal Outcomes

Part 2 Multiple Births

Table 5.7
Live Births, Antepartum and Intrapartum Stillbirths, Early Neonatal Deaths
and Mortality Rates by Birthweight, 2001

Multiple Births

Birthweight (grams)	Live Births	Per Cent (%) Live Births	Ante-partum Stillbirths	Intra-partum Stillbirths	Not Stated	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Perinatal Mortality Rate	Adjusted PMR
500-749	24	1.3	7	1	1	272.7	10	416.7	575.8	548.4
750-999	33	1.8	4	0	0	108.1	8	242.4	324.3	285.7
1000-1249	36	2.0	3	0	2	122.0	1	27.8	146.3	125.0
1250-1499	55	3.0	1	0	0	17.9	1	18.2	35.7	18.2
1500-1999	216	12.0	7	0	0	31.4	1	4.6	35.9	31.5
2000-2499	475	26.3	1	0	1	4.2	1	2.1	6.3	0.0
2500-2999	618	34.2	1	1	1	4.8	1	1.6	6.4	6.4
3000-3499	298	16.5	1	0	0	3.3	1	3.4	6.7	3.4
3500-3999	48	2.7	0	0	0	0.0	0	0.0	0.0	0.0
4000-4499	3	0.2	0	0	0	0.0	0	0.0	0.0	0.0
Not Stated	1	0.1	0	0	0	0.0	0	0.0	0.0	0.0
Total	1,807	100.0	25	2	5	17.4	24	13.3	30.5	24.6

Table 5.8
Stillbirths, Early Neonatal Deaths and Mortality Rates by Cause of Death, 2001

Multiple Births

Cause of Death	Stillbirths	Stillbirth Rate	Early Neonatal Deaths	Early Neonatal Rate	Total Deaths	Perinatal Mortality Rate
Anencephalus	0	0.0	2	1.1	2	1.1
Other Congenital Anomalies	2	1.1	0	0.0	2	1.1
Bulbus Cordis and Septal Closure	0	0.0	1	0.6	1	0.5
Other Congenital Anomalies of the Heart	1	0.5	1	0.6	2	1.1
Other Congenital Anomalies of Circulatory System	1	0.5	0	0.0	1	0.5
Congenital Anomalies of Respiratory System	0	0.0	1	0.6	1	0.5
Musculoskeletal System	1	0.5	1	0.6	2	1.1
Other Maternal Complications	3	1.6	0	0.0	3	1.6
Other Morphological and Functional Anomalies of Placenta	2	1.1	0	0.0	2	1.1
Other Complications of Placenta, Cord & Membrane	12	6.5	0	0.0	12	6.5
Slow Foetal Growth & Malnutrition	1	0.5	0	0.0	1	0.5
Short Gestation and Low Birthweight	1	0.5	10	5.5	11	6.0
Intrauterine Hypoxia/Anoxia	4	2.2	1	0.6	5	2.7
Respiratory Distress Syndrome	0	0.0	3	1.7	3	1.6
Respiratory Conditions of Foetus/Newborn	0	0.0	2	1.1	2	1.1
Neonatal/Foetal Haemorrhage	1	0.5	0	0.0	1	0.5
Integument and Temperature Regulation	0	0.0	2	1.1	2	1.1
Symptoms, Signs, and Ill-Defined Conditions	2	1.1	0	0.0	2	1.1
All Other Causes	1	0.5	0	0.0	1	0.5
Total	32	17.4	24	13.3	56	30.5

Note: See Appendix C for a list of the International Classification of Diseases codes corresponding to each cause of death.

Table 5.9
Number of Perinatal Deaths by Birthweight and Cause of Death, 2001

Multiple Births

Birthweight (grams)	500-749	750-999	1000-1249	1250-1499	1500-1999	2000-2499	2500-2999	3000-3499	Total
Anencephalus	0	0	1	0	1	0	0	0	2
Other Congenital Anomalies	1	2	0	0	0	1	0	1	5
Congenital Anomalies of the Heart	1	0	0	1	0	2	0	0	4
Maternal Complications	3	0	0	0	0	0	0	0	3
Other Complications of Placenta, Cord & Membrane	2	2	4	0	3	0	2	1	14
Slow Foetal Growth	8	3	0	0	1	0	0	0	12
Hypoxia/Anoxia	3	5	0	0	1	0	1	0	10
Neonatal/Foetal Haemorrhage	1	0	0	0	0	0	0	0	1
Integument and Temperature Regulation	0	0	0	1	0	0	1	0	2
Symptoms, Signs, and Ill-Defined Conditions	0	0	1	0	1	0	0	0	2
All other Causes	0	0	0	0	1	0	0	0	1
Total	19	12	6	2	8	3	4	2	56

Note: See Appendix C for a list of the International Classification of Diseases codes corresponding to each cause of death.

Table 5.10
Age at Death
Early Neonatal Deaths, 2001

Multiple Births

Time		Frequency	Per Cent
Completed Hours	<1	5	20.8
	1	2	8.3
	3	1	4.2
	5	3	12.5
	12	2	8.3
	15	1	4.2
	16	1	4.2
Total under 1 Day		15	62.5
Days	1	4	16.7
	2	2	8.3
	3	2	8.3
	5	1	4.2
Total under 1 Week		9	37.5
Total		24	100.0

Table 5.11
Percentage Distribution of Live Births by Infant's Length of Stay in Hospital, 2001

Multiple Births

Length of Stay (Days)	Live Births	Per Cent (%) Live Births
0-2	85	4.8
3-5	721	40.5
6-10	489	27.5
11-28	333	18.7
29 or more	141	7.9
Not Stated	12	0.7
Total	1,781	100.0

Note:

- Domiciliary births, of which there were 2, are excluded from this table. See Appendix G for detailed analysis.
- Early Neonatal Deaths are not included in this table.

Table 5.12
Percentage of Stillbirths and Early Neonatal Deaths undergoing Post-Mortem Examinations, 2001

Multiple Births

Post-mortem Frequency Row Per Cent Col. Per Cent	Type of Death		
	Early Neonatal Deaths	Stillbirths	Total
Post-Mortem	3	15	18
	16.67	83.33	
	12.50	46.88	32.14
No Post-Mortem	21	16	37
	56.76	43.24	
	87.50	50.00	66.07
Not Stated	0	1	1
	0.00	100.00	
	0.00	3.13	1.79
Total	24	32	56
	42.86	57.14	100

Note: See Appendix E for an explanation of the table format.



Appendices

Appendix A

Copy of Part 3 of the Birth Notification Form

The following format was used for births recorded in 2001

NOTIFICATION OF BIRTH -	
To: The National Perinatal Reporting System, Economic and Social Research Institute, 4 Burlington Road, Dublin 4	
TYPE OF BIRTH (Live = 1, Still = 2)	2 <input type="checkbox"/> PLACE OF BIRTH (Hospital = 1, BBA = 2, Domiciliary = 3) 3 <input type="checkbox"/>
	NAME AND _____
	ADDRESS OF _____
HOSPITAL NO. 4 <input type="checkbox"/>	CASE NO. 7 <input type="checkbox"/>
	HOSPITAL _____
INFANT	MOTHER'S HEALTH
DATE OF BIRTH 15 <input type="checkbox"/>	ANTE-NATAL CARE THIS PREGNANCY (Hospital / Obstetrician = 1, G.P. Only = 2, Combined = 3, None = 4) 100 <input type="checkbox"/>
IF MULTIPLE BIRTH ORDER OF BIRTH No. <input type="checkbox"/> 23 of <input type="checkbox"/> 24	DATE OF FIRST VISIT TO DOCTOR DURING PREGNANCY 101 <input type="checkbox"/>
TIME OF BIRTH _____	DATE OF FIRST VISIT TO HOSPITAL DURING PREGNANCY 109 <input type="checkbox"/>
SEX (Male = 1, Female = 2, Indeterminate = 3) 25 <input type="checkbox"/>	WAS MOTHER IMMUNE TO RUBELLA (Yes = 1, No = 2, Not Known = 3) 117 <input type="checkbox"/>
BIRTHWEIGHT 26 <input type="checkbox"/> GRAMMES	METHOD OF DELIVERY (Spontaneous = 1, Breech ± Forceps = 2, Forceps = 3, Vac. Extraction = 4, Caesarean Sec. = 5, Other = 6) 118 <input type="checkbox"/>
PERIOD OF GESTATION 30 <input type="checkbox"/> WEEKS	MAIN MATERNAL DISEASE OR CONDITION AFFECTING FETUS OR INFANT _____ 119 <input type="checkbox"/>
FATHER	OTHER MATERNAL DISEASE OR CONDITION AFFECTING FETUS OR INFANT _____ 123 <input type="checkbox"/>
COUNTY _____ 32 <input type="checkbox"/>	INFANT'S HEALTH
OCCUPATION _____ 35 <input type="checkbox"/>	TYPE OF FEEDING (Artificial = 1, Breast = 2, Combined = 3) 127 <input type="checkbox"/>
DATE OF BIRTH 37 <input type="checkbox"/>	WAS BCG ADMINISTERED (Yes = 1, No = 2) 128 <input type="checkbox"/>
MOTHER	MAIN DISEASE OR CONGENITAL MALFORMATION AFFECTING INFANT _____ 129 <input type="checkbox"/>
COUNTY _____ 45 <input type="checkbox"/>	OTHER DISEASES OR CONGENITAL MALFORMATIONS AFFECTING INFANT _____ 133 <input type="checkbox"/>
OCCUPATION _____ 48 <input type="checkbox"/>	HOSPITAL
DATE OF BIRTH 50 <input type="checkbox"/>	WAS ADMISSION BOOKED (Yes = 1, No = 2) 137 <input type="checkbox"/>
MARITAL STATUS (Married = 1, Single = 2, Widowed = 3, Separated = 4, Divorced = 5) 58 <input type="checkbox"/>	DATE OF MOTHER'S ADMISSION 138 <input type="checkbox"/>
DATE OF PRESENT MARRIAGE 59 <input type="checkbox"/>	DATE OF MOTHER'S DISCHARGE 146 <input type="checkbox"/>
DATE OF LAST BIRTH (live or still) 67 <input type="checkbox"/>	DATE OF INFANT'S DISCHARGE 154 <input type="checkbox"/>
NO. OF PREVIOUS LIVE BIRTHS 75 <input type="checkbox"/>	WAS INFANT TRANSFERRED TO OTHER HOSPITAL FOR MEDICAL REASONS (Yes = 1, No = 2) 162 <input type="checkbox"/>
CHILDREN STILL LIVING 77 <input type="checkbox"/>	IF 'YES', NAME OF HOSPITAL _____ 163 <input type="checkbox"/>
STILL BIRTHS 79 <input type="checkbox"/>	GENERAL PRACTITIONER ATTENDED BY MOTHER
SPONTANEOUS ABORTIONS 81 <input type="checkbox"/>	_____
PERINATAL DEATH	_____
TYPE OF DEATH (Early Neonatal = 1, Stillbirth = 2) 83 <input type="checkbox"/>	CAUSE OF DEATH
WAS AUTOPSY PERFORMED (Yes = 1, No = 2) 84 <input type="checkbox"/>	MAIN DISEASE OR CONDITION IN FETUS OR INFANT _____ 92 <input type="checkbox"/>
AGE OF DEATH 85 <input type="checkbox"/> DAYS 86 <input type="checkbox"/> HOURS	OTHER DISEASES OR CONDITIONS IN FETUS OR INFANT _____ 96 <input type="checkbox"/>
PLACE OF DEATH _____ 88 <input type="checkbox"/>	_____
IF STILLBIRTH, DID DEATH OCCUR BEFORE LABOUR (1) DURING LABOUR (2) NOT KNOWN (3) 91 <input type="checkbox"/>	_____
SIGNATURE	DATE

The following format outlines the new format form effective January 1st 2004.

Notification of Birth - To: National Perinatal Reporting System, The Economic & Social Research Institute, 4 Burlington Rd. Dublin 4

TYPE OF BIRTH (Live = 1, Still = 2) PLACE OF BIRTH (Hospital = 1, BBA = 2, Domiciliary = 3) NAME AND _____
 HOSPITAL NO. CASE NO. ADDRESS OF _____
 HOSPITAL _____

INFANT'S DETAILS
 DATE OF BIRTH (DD/MM/YYYY) 14 _____
 TIME OF BIRTH _____
 IF MULTIPLE BIRTH ORDER OF BIRTH No. 22 of 23

SEX (Male = 1, Female = 2, Indeterminate = 3) 24 _____
 BIRTHWEIGHT 25 _____ GRAMMES
 PERIOD OF GESTATION 29 _____ WEEKS

FATHER'S DETAILS
 COUNTY _____ 31 _____
 COUNTRY _____ 34 _____
 NATIONALITY _____ 38 _____
 OCCUPATION _____ 42 _____
 DATE OF BIRTH (DDMMYYYY) 44 _____

MOTHER'S DETAILS
 COUNTY _____ 52 _____
 COUNTRY _____ 55 _____
 NATIONALITY _____ 59 _____
 OCCUPATION _____ 63 _____
 DATE OF BIRTH (DDMMYYYY) 65 _____

MARITAL STATUS (Married = 1, Never Married = 2, Widowed = 3, Married but Separated = 4, Divorced = 5) 73 _____
 DATE OF PRESENT MARRIAGE (DDMMYYYY) 74 _____
 DATE OF LAST BIRTH (live or still) (DDMMYYYY) 82 _____
 NO. OF PREVIOUS LIVE BIRTHS 90 _____
 CHILDREN STILL LIVING 92 _____
 STILLBIRTHS 94 _____
 SPONTANEOUS ABORTIONS 96 _____

PERINATAL DEATH
 TYPE OF DEATH (Early Neonatal = 1, Stillbirth = 2) 98 _____
 WAS AUTOPSY PERFORMED (Yes = 1, No = 2) 99 _____
 AGE AT DEATH 100 _____ DAYS 101 _____ HOURS
 PLACE OF DEATH _____ 103 _____
 IF STILLBIRTH, DID DEATH OCCUR BEFORE LABOUR (1) 106 _____
 DURING LABOUR (2) NOT KNOWN (3)

CAUSE OF DEATH
 MAIN DISEASE OR CONDITION IN FOETUS OR INFANT _____
 _____ 107 _____
 OTHER DISEASES OR CONDITIONS IN FOETUS OR INFANT _____
 _____ 112 _____

MOTHER'S HEALTH
 ANTENATAL CARE THIS PREGNANCY (Hospital / Obstetrician = 1, G.P. Only = 2, Combined = 3, None = 4, Midwife Only=5) 117 _____
 DATE OF FIRST VISIT TO DOCTOR DURING PREGNANCY (DDMMYYYY) 118 _____
 DATE OF FIRST VISIT TO HOSPITAL DURING PREGNANCY (DDMMYYYY) 126 _____
 WAS MOTHER IMMUNE TO RUBELLA (Yes = 1, No = 2, Not Known = 3) 134 _____
 METHOD OF DELIVERY (Spontaneous = 1, Breech ± Forceps = 2, Forceps = 3, Vac. Extraction = 4, Caesarean Sec. = 5, Other = 6) 135 _____
 MAIN MATERNAL DISEASE OR CONDITION AFFECTING FOETUS OR INFANT _____
 _____ 136 _____
 OTHER MATERNAL DISEASES OR CONDITIONS AFFECTING FOETUS OR INFANT _____
 _____ 141 _____

INFANT'S HEALTH
 TYPE OF FEEDING (Artificial = 1, Breast = 2, Combined = 3) 146 _____
 WAS BCG ADMINISTERED (Yes = 1, No = 2) 147 _____
 MAIN DISEASE OR CONGENITAL MALFORMATION AFFECTING INFANT _____
 _____ 148 _____
 OTHER DISEASES OR CONGENITAL MALFORMATIONS AFFECTING INFANT _____
 _____ 153 _____

HOSPITAL
 WAS ADMISSION BOOKED (Yes = 1, No = 2) 158 _____
 DATE OF MOTHER'S ADMISSION (DDMMYYYY) 159 _____
 DATE OF MOTHER'S DISCHARGE (DDMMYYYY) 167 _____
 DATE OF INFANT'S DISCHARGE (DDMMYYYY) 175 _____
 WAS INFANT TRANSFERRED TO OTHER HOSPITAL FOR MEDICAL REASONS (Yes = 1, No = 2) 183 _____
 IF 'YES', NAME OF HOSPITAL _____
 _____ 184 _____

GENERAL PRACTITIONER ATTENDED BY MOTHER

Signature _____ Date _____ BNF01/2003

Appendix B

Classification of Occupation

Occupations have been coded and classified into a set of socio-economic groups according to a system devised by the Central Statistics Office. The final CSO Category of 'Unknown' has been differentiated into 5 distinct groups for the purposes of the Perinatal Reporting System. These are 'Unemployed', 'Not Classifiable', 'Not Applicable', 'Home Duties' and 'Not Stated'. Occupation is coded as unemployed when occupation is given as unemployed and where no previous occupation is stated. If a previous occupation is stated then occupation is coded to the relevant category. 'Not Classifiable' has been used to categorise indecipherable, unclear, or unlisted occupations where efforts to clarify the information have failed. 'Home Duties' is entered where occupation has been entered as 'full-time mother/father/parent', 'stay at home mother/father/parent', 'housewife', 'home duties' etc. 'Not Stated' applies to those cases where either the mother or the father's occupation has been left blank.

Under Father's occupation, the following applies;

'Not Applicable' is entered when the marital status of the mother has been given as single, widowed, separated or divorced and where father's occupation has been left blank. 'Not Stated' applies to those cases where the marital status of the mother is recorded as either married or not stated and where father's occupation has been left blank. In either case, if an occupation is given for the father then the appropriate occupational code has been used.

The full list of socio-economic groups used in this report is given below:

- Farmers and Farm Managers
- Other Agricultural Occupations and Fishermen
- Higher Professional
- Lower Professional
- Employers and Managers
- Salaried Employees
- Intermediate Non-Manual Workers
- Other Non-Manual Workers
- Skilled Manual Workers
- Semi- Skilled Manual Workers
- Unskilled Manual Workers
- Unemployed
- Not Classifiable
- Not Applicable (Father's Occupation Only)
- Home Duties
- Not Stated

Appendix C

Cause of Death Classification

The main cause of death has been determined according to the guidelines set out by the World Health Organisation in the ninth revision of the International Classification of Diseases (ICD).³ Briefly, the principal coding criteria are as follows:

1. The main cause of death as far as possible should indicate the pathological condition of the infant or foetus, which in the opinion of the certifier made the greatest contribution towards the death.
2. If heart or cardiac failure, asphyxia or anoxia (any condition in 768) or prematurity (any condition in 765) is entered as the main cause and other conditions of the infant or foetus are entered as secondary causes, then the first-mentioned of these other conditions is entered as the main cause of death.
3. If two or more conditions are entered as the main cause of death then the first mentioned condition is coded as if it had been mentioned alone and the second-mentioned cause is coded as the secondary condition.
4. If there is no entry for a main cause, then any secondary condition of the infant is coded as the main cause.
5. If a maternal condition is entered in the section reserved for the infant's conditions or if an infant's condition is entered in the section provided for maternal conditions then the conditions are coded as if they had been entered in the respective correct section.
6. If the foetus died before the onset of labour, then obstetrical complications that could not have affected the outcome are ignored as causes of death.

For the purpose of the cause of death tables included in this report, one further criterion has been applied. This is to the effect that where heart failure, asphyxia or anoxia (any condition in 768) or prematurity (any condition in 765) is coded as the main cause of death or where no infant's condition is given then, where a specific maternal condition is given, the main cause of death is classified under the maternal condition.

³ World Health Organisation. 1978. *Manual of the International Classification of Diseases, Injuries and Causes of Death*, 9th Revision. Vol. 1. Geneva: WHO.

In Table 5.2, which contains a detailed classification of cause of death, the corresponding ICD numbers are listed in the left hand column of that table. For the less detailed tables (i.e. Tables 5.3, 5.8, and 5.9), the ICD codes relating to each cause of death category are given below:

ICD Codes	Cause of Death
740	Anencephalus and similar anomalies
741	Spina Bifida
742	Other congenital anomalies of the nervous system
745-747	Congenital anomalies of the heart
758	Chromosomal anomalies (including Down's Syndrome)
743-744, 748-757, 759	Other congenital anomalies
760-761	Maternal conditions and complications
762	Complications of the placenta, cord and membranes
763	Other complications of labour and delivery
764-765	Slow foetal growth, foetal malnutrition, and immaturity
766	Disorders relating to long gestation and high birthweight
767	Birth trauma
768-770	Intrauterine hypoxia and birth asphyxia and other respiratory conditions of foetus or newborn
771	Infections specific to the perinatal period
772	Foetal and neonatal haemorrhage
773	Haemolytic disease of foetus or newborn, due to iso-immunisation
775	Endocrine and metabolic disturbances specific to the foetus and newborn
778	Conditions involving the integument and temperature regulation of foetus and newborn
779.9	Maceration
780-799	Symptoms, signs and ill-defined conditions

All other codes have been classified to the category 'all other causes'. Where no cause has been given, perinatal deaths are categorised as 'cause not stated'.

Appendix D

Classification of County of Residence

The following codes are applied to mother and father's county of residence. Where a Dublin postal code, such as Dublin 13, is entered then a code of 10 is applied for Dublin city. Where there is no postal code and Dublin is recorded then a code of 11 is applied for Dublin County. Where county of residence is recorded as Tipperary and North or South Riding is not specified, then the assignment of the code is based on the Health Board in which the birth occurred. For births occurring in the South-Eastern or Southern Health Boards where Tipperary is recorded as county of residence then a code of 62, Tipperary South Riding is applied. For births occurring in other Health Boards where Tipperary is recorded as county of residence then a code of 32, Tipperary North Riding is applied. Where a mother or father's county of residence is unknown the code 99 is applied. The code 90 is applied where the address given is outside the Republic of Ireland.

10	Dublin city
11	Dublin county
12	Kildare
13	Wicklow
20	Laois
21	Offaly
22	Longford
23	Westmeath
30	Clare
31	Limerick
32	Tipperary North Riding
40	Meath
41	Cavan
42	Monaghan
43	Louth
50	Donegal
51	Sligo
52	Leitrim
60	Carlow
61	Kilkenny
62	Tipperary South Riding
63	Waterford
64	Wexford
70	Cork
71	Kerry
80	Galway
81	Mayo
82	Roscommon
90	Other – all other places outside Republic of Ireland
99	Not Stated

Appendix E

Cross-Tabulations of Selected Variables: 2001

This appendix contains a range of cross-tabulations relating to live and still singleton births. A full list of these tables is given in the Table of Contents. The format of each cross-tabulation is identical. The values of the two variables are given along the top and left. The top number in each cell indicates the number of observations relating to that combination of variable values. The second number indicates the percentage contribution of that cell to the total for the whole row. The last number indicates the percentage contribution of that cell to the total for the whole column. The figures at the end of each row or column give the overall total for that row or column, and the associated percentages express each of these figures as a percentage of the grand total.

Table E1
Age of Mother by Maternal Parity, Live Births and Stillbirths, 2001

Singleton Births

Age of Mother	Maternal Parity									
	0	1	2	3	4	5	6	More than 6	Not Stated	Total
Under 15	12	0	0	0	0	0	0	0	0	12
	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
15-19	2,801	256	26	2	0	0	0	1	1	3,087
	90.74	8.29	0.84	0.06	0.00	0.00	0.00	0.03	0.03	
	12.07	1.48	0.28	0.05	0.00	0.00	0.00	0.39	6.25	5.47
20-24	5,231	2,297	572	122	27	9	0	0	5	8,263
	63.31	27.80	6.92	1.48	0.33	0.11	0.00	0.00	0.06	
	22.55	13.25	6.11	3.06	1.90	1.51	0.00	0.00	31.25	14.64
25-29	6,544	4,556	1,820	652	215	71	24	12	2	13,896
	47.09	32.79	13.10	4.69	1.55	0.51	0.17	0.09	0.01	
	28.21	26.29	19.45	16.35	15.14	11.89	9.41	4.63	12.50	24.63
30-34	6,295	6,685	3,671	1,356	437	190	62	49	4	18,749
	33.58	35.66	19.58	7.23	2.33	1.01	0.33	0.26	0.02	
	27.14	38.57	39.23	34.00	30.77	31.83	24.31	18.92	25.00	33.23
35-39	1,993	3,121	2,821	1,523	566	237	108	114	1	10,484
	19.01	29.77	26.91	14.53	5.40	2.26	1.03	1.09	0.01	
	8.59	18.01	30.15	38.19	39.86	39.70	42.35	44.02	6.25	18.58
40-44	301	400	427	326	163	80	57	75	1	1,830
	16.45	21.86	23.33	17.81	8.91	4.37	3.11	4.10	0.05	
	1.30	2.31	4.56	8.17	11.48	13.40	22.35	28.96	6.25	3.24
45 and over	11	12	19	6	12	9	4	7	0	80
	13.75	15.00	23.75	7.50	15.00	11.25	5.00	8.75	0.00	
	0.05	0.07	0.20	0.15	0.85	1.51	1.57	2.70	0.00	0.14
Not Stated	9	6	1	1	0	1	0	1	2	21
	42.86	28.57	4.76	4.76	0.00	4.76	0.00	4.76	9.52	
	0.04	0.03	0.01	0.03	0.00	0.17	0.00	0.39	12.50	0.04
Total	23,197	17,333	9,357	3,988	1,420	597	255	259	16	56,422
	41.11	30.72	16.58	7.07	2.52	1.06	0.45	0.46	0.03	100.00

Table E2
Method of Delivery by Maternal Parity, Live Births and Stillbirths, 2001

Singleton Births

Method of Delivery	Maternal Parity									
	0	1	2	3	4	5	6	More than 6	Not Stated	Total
Spontaneous	11,750	12,210	7,141	3,170	1,129	488	203	204	11	36,306
	32.36	33.63	19.67	8.73	3.11	1.34	0.56	0.56	0.03	
	50.65	70.44	76.32	79.49	79.51	81.74	79.61	78.76	68.75	64.35
Breech/Forceps	149	53	20	4	5	1	3	2	1	238
	62.61	22.27	8.40	1.68	2.10	0.42	1.26	0.84	0.42	
	0.64	0.31	0.21	0.10	0.35	0.17	1.18	0.77	6.25	0.42
Forceps	1,442	266	67	22	5	2	0	1	1	1,806
	79.84	14.73	3.71	1.22	0.28	0.11	0.00	0.06	0.06	
	6.22	1.53	0.72	0.55	0.35	0.34	0.00	0.39	6.25	3.20
Vac. Extraction	4,239	1,205	387	130	39	15	5	4	1	6,025
	70.36	20.00	6.42	2.16	0.65	0.25	0.08	0.07	0.02	
	18.27	6.95	4.14	3.26	2.75	2.51	1.96	1.54	6.25	10.68
Caesarean	5,526	3,542	1,703	646	236	91	42	47	0	11,833
	46.70	29.93	14.39	5.46	1.99	0.77	0.35	0.40	0.00	
	23.82	20.44	18.20	16.20	16.62	15.24	16.47	18.15	0.00	20.97
Other specified & Combined	85	57	39	15	5	0	2	1	0	204
	41.67	27.94	19.12	7.35	2.45	0.00	0.98	0.49	0.00	
	0.37	0.33	0.42	0.38	0.35	0.00	0.78	0.39	0.00	0.36
Not Stated	6	0	0	1	1	0	0	0	2	10
	60.00	0.00	0.00	10.00	10.00	0.00	0.00	0.00	20.00	
	0.03	0.00	0.00	0.03	0.07	0.00	0.00	0.00	12.50	0.02
Total	23,197	17,333	9,357	3,988	1,420	597	255	259	16	56,422
	41.11	30.72	16.58	7.07	2.52	1.06	0.45	0.46	0.03	100.00

Table E3
Marital Status by Age of Mother, Live Births and Stillbirths, 2001

Singleton Births

Marital Status	Age of Mother									
	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	Not Stated	Total
Married	3	217	1,884	9,309	16,155	9,213	1,544	69	14	38,408
	0.01	0.56	4.91	24.24	42.06	23.99	4.02	0.18	0.04	
	25.00	7.03	22.80	66.99	86.16	87.88	84.37	86.25	66.67	68.07
Single	9	2,868	6,346	4,455	2,283	932	173	9	6	17,081
	0.05	16.79	37.15	26.08	13.37	5.46	1.01	0.05	0.04	
	75.00	92.91	76.80	32.06	12.18	8.89	9.45	11.25	28.57	30.27
Widowed	0	0	1	17	17	32	14	1	0	82
	0.00	0.00	1.22	20.73	20.73	39.02	17.07	1.22	0.00	
	0.00	0.00	0.01	0.12	0.09	0.31	0.77	1.25	0.00	0.15
Separated	0	2	30	102	255	242	80	0	0	711
	0.00	0.28	4.22	14.35	35.86	34.04	11.25	0.00	0.00	
	0.00	0.06	0.36	0.73	1.36	2.31	4.37	0.00	0.00	1.26
Divorced	0	0	0	13	38	65	19	1	0	136
	0.00	0.00	0.00	9.56	27.94	47.79	13.97	0.74	0.00	
	0.00	0.00	0.00	0.09	0.20	0.62	1.04	1.25	0.00	0.24
Not Stated	0	0	2	0	1	0	0	0	1	4
	0.00	0.00	50.00	0.00	25.00	0.00	0.00	0.00	25.00	
	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	4.76	0.01
Total	12	3,087	8,263	13,896	18,749	10,484	1,830	80	21	56,422
	0.02	5.47	14.64	24.63	33.23	18.58	3.24	0.14	0.04	100.00

Table E4
Marital Status by Age of Father, Live Births and Stillbirths, 2001

Singleton Births

Marital Status	Age of Father								
	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	Not Stated	Total
Married	47	591	4,644	11,870	9,088	3,091	821	8,256	38,408
	0.12	1.54	12.09	30.91	23.66	8.05	2.14	21.50	
	27.98	52.07	87.71	96.17	97.09	96.47	93.30	34.35	68.07
Single	121	532	631	425	227	91	46	15,008	17,081
	0.71	3.11	3.69	2.49	1.33	0.53	0.27	87.86	
	72.02	46.87	11.92	3.44	2.43	2.84	5.23	62.44	30.27
Widowed	0	1	3	5	5	4	5	59	82
	0.00	1.22	3.66	6.10	6.10	4.88	6.10	71.95	
	0.00	0.09	0.06	0.04	0.05	0.12	0.57	0.25	0.15
Separated	0	11	15	35	30	17	6	597	711
	0.00	1.55	2.11	4.92	4.22	2.39	0.84	83.97	
	0.00	0.97	0.28	0.28	0.32	0.53	0.68	2.48	1.26
Divorced	0	0	2	8	10	1	2	113	136
	0.00	0.00	1.47	5.88	7.35	0.74	1.47	83.09	
	0.00	0.00	0.04	0.06	0.11	0.03	0.23	0.47	0.24
Not Stated	0	0	0	0	0	0	0	4	4
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01
Total	168	1,135	5,295	12,343	9,360	3,204	880	24,037	56,422
	0.30	2.01	9.38	21.88	16.59	5.68	1.56	42.60	100.00

Table E5
Gestation Period at Delivery by Maternal Parity, Live Births and Stillbirths, 2001

Singleton Births

Gestation Period (weeks)	Maternal Parity									
	0	1	2	3	4	5	6	More than 6	Not Stated	Total
Less than 22	4	1	0	0	0	0	0	0	0	5
	80.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
22-27	95	45	22	7	5	1	1	2	3	181
	52.49	24.86	12.15	3.87	2.76	0.55	0.55	1.10	1.66	
	0.41	0.26	0.24	0.18	0.35	0.17	0.39	0.77	18.75	0.32
28-31	144	68	52	26	10	8	5	2	0	315
	45.71	21.59	16.51	8.25	3.17	2.54	1.59	0.63	0.00	
	0.62	0.39	0.56	0.65	0.70	1.34	1.96	0.77	0.00	0.56
32-36	980	554	297	153	61	31	16	12	3	2,107
	46.51	26.29	14.10	7.26	2.90	1.47	0.76	0.57	0.14	
	4.22	3.20	3.17	3.84	4.30	5.19	6.27	4.63	18.75	3.73
37-41	20,192	15,787	8,525	3,625	1,273	523	217	219	8	50,369
	40.09	31.34	16.93	7.20	2.53	1.04	0.43	0.43	0.02	
	87.05	91.08	91.11	90.90	89.65	87.60	85.10	84.56	50.00	89.27
42 and over	1,767	860	453	174	70	33	16	22	1	3,396
	52.03	25.32	13.34	5.12	2.06	0.97	0.47	0.65	0.03	
	7.62	4.96	4.84	4.36	4.93	5.53	6.27	8.49	6.25	6.02
Not Stated	15	18	8	3	1	1	0	2	1	49
	30.61	36.73	16.33	6.12	2.04	2.04	0.00	4.08	2.04	
	0.06	0.10	0.09	0.08	0.07	0.17	0.00	0.77	6.25	0.09
Total	23,197	17,333	9,357	3,988	1,420	597	255	259	16	56,422
	41.11	30.72	16.58	7.07	2.52	1.06	0.45	0.46	0.03	100.00

Table E6
Age of Mother by Gestation Period at Delivery, Live Births and Stillbirths, 2001

Singleton Births

Age of Mother	Gestation Period (weeks)							Total
	Less than 22	22-27	28-31	32-36	37-41	42 and over	Not Stated	
Frequency								
Row Per Cent								
Col. Per Cent								
Under 15	0	0	0	0	11	1	0	12
	0.00	0.00	0.00	0.00	91.67	8.33	0.00	
	0.00	0.00	0.00	0.00	0.02	0.03	0.00	0.02
15-19	0	25	25	185	2,633	216	3	3,087
	0.00	0.81	0.81	5.99	85.29	7.00	0.10	
	0.00	13.81	7.94	8.78	5.23	6.36	6.12	5.47
20-24	1	33	48	345	7,167	655	14	8,263
	0.01	0.40	0.58	4.18	86.74	7.93	0.17	
	20.00	18.23	15.24	16.37	14.23	19.29	28.57	14.64
25-29	3	40	66	455	12,400	918	14	13,896
	0.02	0.29	0.47	3.27	89.23	6.61	0.10	
	60.00	22.10	20.95	21.59	24.62	27.03	28.57	24.63
30-34	0	47	79	647	16,911	1,058	7	18,749
	0.00	0.25	0.42	3.45	90.20	5.64	0.04	
	0.00	25.97	25.08	30.71	33.57	31.15	14.29	33.23
35-39	0	30	78	384	9,506	481	5	10,484
	0.00	0.29	0.74	3.66	90.67	4.59	0.05	
	0.00	16.57	24.76	18.22	18.87	14.16	10.20	18.58
40-44	1	4	19	83	1,654	64	5	1,830
	0.05	0.22	1.04	4.54	90.38	3.50	0.27	
	20.00	2.21	6.03	3.94	3.28	1.88	10.20	3.24
45 and over	0	1	0	6	71	2	0	80
	0.00	1.25	0.00	7.50	88.75	2.50	0.00	
	0.00	0.55	0.00	0.28	0.14	0.06	0.00	0.14
Not Stated	0	1	0	2	16	1	1	21
	0.00	4.76	0.00	9.52	76.19	4.76	4.76	
	0.00	0.55	0.00	0.09	0.03	0.03	2.04	0.04
Total	5	181	315	2,107	50,369	3,396	49	56,422
	0.01	0.32	0.56	3.73	89.27	6.02	0.09	100.00

Table E7
Method of Delivery by Age of Mother, Live Births and Stillbirths, 2001

Singleton Births

Method of Delivery	Age of Mother									
	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	Not Stated	Total
Spontaneous	7	2,130	5,787	9,044	11,690	6,478	1,107	48	15	36,306
	0.02	5.87	15.94	24.91	32.20	17.84	3.05	0.13	0.04	
	58.33	69.00	70.04	65.08	62.35	61.79	60.49	60.00	71.43	64.35
Breech/Forceps	0	21	36	56	78	39	7	0	1	238
	0.00	8.82	15.13	23.53	32.77	16.39	2.94	0.00	0.42	
	0.00	0.68	0.44	0.40	0.42	0.37	0.38	0.00	4.76	0.42
Forceps	0	97	216	475	678	300	39	1	0	1,806
	0.00	5.37	11.96	26.30	37.54	16.61	2.16	0.06	0.00	
	0.00	3.14	2.61	3.42	3.62	2.86	2.13	1.25	0.00	3.20
Vac. Extraction	4	470	955	1,536	1,992	926	137	4	1	6,025
	0.07	7.80	15.85	25.49	33.06	15.37	2.27	0.07	0.02	
	33.33	15.23	11.56	11.05	10.62	8.83	7.49	5.00	4.76	10.68
Caesarean	0	361	1,239	2,744	4,237	2,695	528	26	3	11,833
	0.00	3.05	10.47	23.19	35.81	22.78	4.46	0.22	0.03	
	0.00	11.69	14.99	19.75	22.60	25.71	28.85	32.50	14.29	20.97
Other specified & Combined	1	8	29	38	72	43	12	1	0	204
	0.49	3.92	14.22	18.63	35.29	21.08	5.88	0.49	0.00	
	8.33	0.26	0.35	0.27	0.38	0.41	0.66	1.25	0.00	0.36
Not Stated	0	0	1	3	2	3	0	0	1	10
	0.00	0.00	10.00	30.00	20.00	30.00	0.00	0.00	10.00	
	0.00	0.00	0.01	0.02	0.01	0.03	0.00	0.00	4.76	0.02
Total	12	3,087	8,263	13,896	18,749	10,484	1,830	80	21	56,422
	0.02	5.47	14.64	24.63	33.23	18.58	3.24	0.14	0.04	100.00

Table E8
Birthweight by Gestation Period at Delivery, Live Births and Stillbirths, 2001

Singleton Births

Birthweight (grams)	Gestation Period (weeks)							Total
	Less than 22	22-27	28-31	32-36	37-41	42 and over	Not Stated	
500-749	4	86	13	3	1	0	0	107
	3.74	80.37	12.15	2.80	0.93	0.00	0.00	
	80.00	47.51	4.13	0.14	0.00	0.00	0.00	0.19
750-999	0	53	38	7	0	0	0	98
	0.00	54.08	38.78	7.14	0.00	0.00	0.00	
	0.00	29.28	12.06	0.33	0.00	0.00	0.00	0.17
1000-1249	1	27	66	30	0	0	0	124
	0.81	21.77	53.23	24.19	0.00	0.00	0.00	
	20.00	14.92	20.95	1.42	0.00	0.00	0.00	0.22
1250-1499	0	8	79	47	5	1	0	140
	0.00	5.71	56.43	33.57	3.57	0.71	0.00	
	0.00	4.42	25.08	2.23	0.01	0.03	0.00	0.25
1500-1999	0	3	93	300	77	0	0	473
	0.00	0.63	19.66	63.42	16.28	0.00	0.00	
	0.00	1.66	29.52	14.24	0.15	0.00	0.00	0.84
2000-2499	0	0	15	611	777	8	4	1,415
	0.00	0.00	1.06	43.18	54.91	0.57	0.28	
	0.00	0.00	4.76	29.00	1.54	0.24	8.16	2.51
2500-2999	0	1	5	685	5,245	103	6	6,045
	0.00	0.02	0.08	11.33	86.77	1.70	0.10	
	0.00	0.55	1.59	32.51	10.41	3.03	12.24	10.71
3000-3499	0	0	2	327	17,052	847	10	18,238
	0.00	0.00	0.01	1.79	93.50	4.64	0.05	
	0.00	0.00	0.63	15.52	33.85	24.94	20.41	32.32
3500-3999	0	0	0	77	18,365	1,337	15	19,794
	0.00	0.00	0.00	0.39	92.78	6.75	0.08	
	0.00	0.00	0.00	3.65	36.46	39.37	30.61	35.08
4000-4499	0	0	0	14	7,357	877	7	8,255
	0.00	0.00	0.00	0.17	89.12	10.62	0.08	
	0.00	0.00	0.00	0.66	14.61	25.82	14.29	14.63
4500 and over	0	0	0	4	1,489	223	3	1,719
	0.00	0.00	0.00	0.23	86.62	12.97	0.17	
	0.00	0.00	0.00	0.19	2.96	6.57	6.12	3.05
Not Stated	0	3	4	2	1	0	4	14
	0.00	21.43	28.57	14.29	7.14	0.00	28.57	
	0.00	1.66	1.27	0.09	0.00	0.00	8.16	0.02
Total	5	181	315	2,107	50,369	3,396	49	56,422
	0.01	0.32	0.56	3.73	89.27	6.02	0.09	100.00

Table E9
Method of Delivery by Mother's Length of Stay in Hospital after Delivery, 2001

Singleton Births

Method of Delivery	Postnatal Length of Stay								
	0-1 Days	2 Days	3-5 Days	6-8 Days	9-11 Days	12-14 Days	2 weeks or more	Not Stated	Total
Spontaneous	3,912	11,825	19,526	625	90	23	37	26	36,064
	10.85	32.79	54.14	1.73	0.25	0.06	0.10	0.07	
	91.57	87.20	57.94	15.71	20.32	22.12	43.02	78.79	64.19
Breech/Forceps	39	41	138	17	1	1	1	0	238
	16.39	17.23	57.98	7.14	0.42	0.42	0.42	0.00	
	0.91	0.30	0.41	0.43	0.23	0.96	1.16	0.00	0.42
Forceps	42	295	1,347	111	5	3	2	1	1,806
	2.33	16.33	74.58	6.15	0.28	0.17	0.11	0.06	
	0.98	2.18	4.00	2.79	1.13	2.88	2.33	3.03	3.21
Vac. Extraction	221	1,268	4,305	185	32	7	5	2	6,025
	3.67	21.05	71.45	3.07	0.53	0.12	0.08	0.03	
	5.17	9.35	12.77	4.65	7.22	6.73	5.81	6.06	10.72
Caesarean	48	120	8,274	2,968	310	69	40	4	11,833
	0.41	1.01	69.92	25.08	2.62	0.58	0.34	0.03	
	1.12	0.88	24.55	74.59	69.98	66.35	46.51	12.12	21.06
Other specified & Combined	8	12	106	71	5	1	1	0	204
	3.92	5.88	51.96	34.80	2.45	0.49	0.49	0.00	
	0.19	0.09	0.31	1.78	1.13	0.96	1.16	0.00	0.36
Not Stated	2	0	5	2	0	0	0	0	9
	22.22	0.00	55.56	22.22	0.00	0.00	0.00	0.00	
	0.05	0.00	0.01	0.05	0.00	0.00	0.00	0.00	0.02
Total	4,272	13,561	33,701	3,979	443	104	86	33	56,179
	7.60	24.14	59.99	7.08	0.79	0.19	0.15	0.06	100.00

Note:

- 'Not Stated' includes 20 births where place of birth was recorded as domiciliary but birth was registered by a hospital.

Mother was not admitted under a planned community midwife scheme, therefore, dates of mother's length of stay were not applicable.

- Domiciliary births, of which there were 243, are excluded from this table. See Appendix G for detailed analysis.

Table E10
Maternal Parity by Mother's Length of Stay in Hospital after Delivery, 2001

Singleton Births

Maternal Parity	Postnatal Length of Stay								
	0-1 Days	2 Days	3-5 Days	6-8 Days	9-11 Days	12-14 Days	2 weeks or more	Not Stated	Total
0	680	3,420	16,545	2,132	257	55	41	7	23,137
	2.94	14.78	71.51	9.21	1.11	0.24	0.18	0.03	
	15.92	25.22	49.09	53.58	58.01	52.88	47.67	21.21	41.18
1	1,580	5,144	9,395	977	100	24	21	8	17,249
	9.16	29.82	54.47	5.66	0.58	0.14	0.12	0.05	
	36.99	37.93	27.88	24.55	22.57	23.08	24.42	24.24	30.70
2	1,073	2,912	4,699	534	56	10	11	8	9,303
	11.53	31.30	50.51	5.74	0.60	0.11	0.12	0.09	
	25.12	21.47	13.94	13.42	12.64	9.62	12.79	24.24	16.56
3	535	1,279	1,902	199	17	9	7	6	3,954
	13.53	32.35	48.10	5.03	0.43	0.23	0.18	0.15	
	12.52	9.43	5.64	5.00	3.84	8.65	8.14	18.18	7.04
4	219	434	670	74	8	3	3	1	1,412
	15.51	30.74	47.45	5.24	0.57	0.21	0.21	0.07	
	5.13	3.20	1.99	1.86	1.81	2.88	3.49	3.03	2.51
5	101	194	261	31	3	2	2	2	596
	16.95	32.55	43.79	5.20	0.50	0.34	0.34	0.34	
	2.36	1.43	0.77	0.78	0.68	1.92	2.33	6.06	1.06
6	43	84	113	13	1	0	0	0	254
	16.93	33.07	44.49	5.12	0.39	0.00	0.00	0.00	
	1.01	0.62	0.34	0.33	0.23	0.00	0.00	0.00	0.45
More than 6	36	93	108	18	1	1	1	1	259
	13.90	35.91	41.70	6.95	0.39	0.39	0.39	0.39	
	0.84	0.69	0.32	0.45	0.23	0.96	1.16	3.03	0.46
Not Stated	5	1	8	1	0	0	0	0	15
	33.33	6.67	53.33	6.67	0.00	0.00	0.00	0.00	
	0.12	0.01	0.02	0.03	0.00	0.00	0.00	0.00	0.03
Total	4,272	13,561	33,701	3,979	443	104	86	33	56,179
	7.60	24.14	59.99	7.08	0.79	0.19	0.15	0.06	100.00

Note:

- 'Not Stated' includes 20 births where place of birth was recorded as domiciliary but birth was registered by a hospital. Mother was not admitted under a planned community midwife scheme, therefore, dates of mother's length of stay were not applicable.
- Domiciliary births, of which there were 243, are excluded from this table. See Appendix G for detailed analysis.

Table E11

Marital Status by Gestation Period at Time of First Visit to Doctor or Hospital during Pregnancy, Live Births and Stillbirths, 2001

Singleton Births

Marital Status	Gestational Age at First Visit (weeks)				
	0-12	13-19	20 and over	Not Stated	Total
Frequency					
Row Per Cent					
Col. Per Cent					
Married	8,601	14,740	11,990	3,077	38,408
	22.39	38.38	31.22	8.01	
	72.76	70.19	59.93	85.64	68.07
Single	3,030	5,948	7,621	482	17,081
	17.74	34.82	44.62	2.82	
	25.63	28.32	38.09	13.41	30.27
Widowed	16	21	40	5	82
	19.51	25.61	48.78	6.10	
	0.14	0.10	0.20	0.14	0.15
Separated	147	236	304	24	711
	20.68	33.19	42.76	3.38	
	1.24	1.12	1.52	0.67	1.26
Divorced	27	55	52	2	136
	19.85	40.44	38.24	1.47	
	0.23	0.26	0.26	0.06	0.24
Not Stated	0	0	1	3	4
	0.00	0.00	25.00	75.00	
	0.00	0.00	0.00	0.08	0.01
Total	11,821	21,000	20,008	3,593	56,422
	20.95	37.22	35.46	6.37	100.00

Table E12

Interval in Years since Last Birth by Gestation Period at Time of First Visit to Doctor or Hospital during Pregnancy, Live Births and Stillbirths, 2001

Singleton Births

Interval	Gestational Age at First Visit (weeks)				
	0-12	13-19	20 and over	Not Stated	Total
Frequency					
Row Per Cent					
Col. Per Cent					
No Previous Births	5,392	8,483	7,939	1,383	23,197
	23.24	36.57	34.22	5.96	
	45.61	40.40	39.68	38.49	41.11
1 year or less	75	164	306	31	576
	13.02	28.47	53.13	5.38	
	0.63	0.78	1.53	0.86	1.02
>1 year to 2 years	1,230	2,724	2,949	587	7,490
	16.42	36.37	39.37	7.84	
	10.41	12.97	14.74	16.34	13.27
>2 years to 3 years	1,683	3,304	2,875	570	8,432
	19.96	39.18	34.10	6.76	
	14.24	15.73	14.37	15.86	14.94
>3 years to 4 years	1,153	2,205	1,828	344	5,530
	20.85	39.87	33.06	6.22	
	9.75	10.50	9.14	9.57	9.80
>4 years to 5 years	714	1,418	1,195	192	3,519
	20.29	40.30	33.96	5.46	
	6.04	6.75	5.97	5.34	6.24
>5 years to 6 years	452	786	818	113	2,169
	20.84	36.24	37.71	5.21	
	3.82	3.74	4.09	3.15	3.84
More than 6 years	1,068	1,812	1,883	225	4,988
	21.41	36.33	37.75	4.51	
	9.03	8.63	9.41	6.26	8.84
Number of Previous Births Unknown	2	2	6	4	14
	14.29	14.29	42.86	28.57	
	0.02	0.01	0.03	0.11	0.02
Not Stated	52	102	209	144	507
	10.26	20.12	41.22	28.40	
	0.44	0.49	1.04	4.01	0.90
Total	11,821	21,000	20,008	3,593	56,422
	20.95	37.22	35.46	6.37	100.00

Table E13

Father's Occupation by Infant's Birthweight, Live Births and Stillbirths, 2001

Singleton Births

Father's Occupation	Birthweight (grams)												Total
	500-749	750-999	1000-1249	1250-1499	1500-1999	2000-2499	2500-2999	3000-3499	3500-3999	4000-4499	4500 and over	Not Stated	
Farmers & Farm Managers	4 0.15 3.74	4 0.15 4.08	3 0.11 2.42	7 0.26 5.00	17 0.63 3.59	43 1.59 3.04	193 7.15 3.19	779 28.85 4.27	1,015 37.59 5.13	518 19.19 6.27	117 4.33 6.81	0 0.00 0.00	2,700 4.79
Other Agricultural Occupations & Fishermen	1 0.19 0.93	0 0.00 0.00	0 0.00 0.00	3 0.57 2.14	6 1.15 1.27	11 2.10 0.78	53 10.11 0.88	166 31.68 0.91	197 37.60 1.00	73 13.93 0.88	14 2.67 0.81	0 0.00 0.00	524 0.93
Higher-Professional	2 0.05 1.87	6 0.15 6.12	6 0.15 4.84	1 0.03 0.71	28 0.72 5.92	64 1.65 4.52	322 8.29 5.33	1,180 30.39 6.47	1,499 38.60 7.57	633 16.30 7.67	140 3.61 8.14	2 0.05 14.29	3,883 6.88
Lower-Professional	1 0.05 0.93	4 0.19 4.08	4 0.19 3.23	5 0.23 3.57	16 0.74 3.38	38 1.77 2.69	162 7.53 2.68	643 29.89 3.53	837 38.91 4.23	364 16.92 4.41	77 3.58 4.48	0 0.00 0.00	2,151 3.81
Managers	6 0.12 5.61	3 0.06 3.06	3 0.06 2.42	10 0.20 7.14	24 0.49 5.07	72 1.46 5.09	402 8.14 6.65	1,486 30.09 8.15	1,908 38.64 9.64	855 17.31 10.36	167 3.38 9.71	2 0.04 14.29	4,938 8.75
Salaried-Employees	2 0.15 1.87	2 0.15 2.04	3 0.22 2.42	2 0.15 1.43	9 0.67 1.90	25 1.85 1.77	127 9.40 2.10	424 31.38 2.32	454 33.60 2.29	252 18.65 3.05	51 3.77 2.97	0 0.00 0.00	1,351 2.39
Non-Manual Workers	6 0.14 5.61	3 0.07 3.06	5 0.11 4.03	9 0.21 6.43	26 0.59 5.50	96 2.19 6.78	388 8.86 6.42	1,383 31.59 7.58	1,612 36.82 8.14	693 15.83 8.39	156 3.56 9.08	1 0.02 7.14	4,378 7.76
Other Non-Manual Workers	8 0.16 7.48	11 0.22 11.22	10 0.20 8.06	8 0.16 5.71	37 0.74 7.82	120 2.41 8.48	537 10.79 8.88	1,546 31.06 8.48	1,772 35.60 8.95	765 15.37 9.27	163 3.27 9.48	1 0.02 7.14	4,978 8.82
Skilled Manual Workers	13 0.14 12.15	14 0.15 14.29	17 0.19 13.71	22 0.24 15.71	64 0.70 13.53	203 2.22 14.35	853 9.31 14.11	2,892 31.57 15.86	3,287 35.88 16.61	1,476 16.11 17.88	317 3.46 18.44	2 0.02 14.29	9,160 16.23
Semi-skilled Manual Workers	6 0.21 5.61	6 0.21 6.12	14 0.48 11.29	7 0.24 5.00	24 0.83 5.07	56 1.93 3.96	305 10.52 5.05	964 33.24 5.29	1,004 34.62 5.07	419 14.45 5.08	95 3.28 5.53	0 0.00 0.00	2,900 5.14
Unskilled Manual Workers	0 0.00 0.00	2 0.31 2.04	5 0.77 4.03	4 0.61 2.86	8 1.23 1.69	15 2.30 1.06	84 12.86 1.39	211 32.31 1.16	224 34.30 1.13	88 13.48 1.07	12 1.84 0.70	0 0.00 0.00	653 1.16
Unemployed	5 0.32 4.67	2 0.13 2.04	5 0.32 4.03	9 0.58 6.43	17 1.09 3.59	51 3.27 3.60	204 13.09 3.37	540 34.66 2.96	481 30.87 2.43	208 13.35 2.52	36 2.31 2.09	0 0.00 0.00	1,558 2.76
Not Classifiable	2 0.50 1.87	3 0.74 3.06	1 0.25 0.81	2 0.50 1.43	2 0.50 0.42	17 4.22 1.20	41 10.17 0.68	138 34.24 0.76	148 36.72 0.75	40 9.93 0.48	9 2.23 0.52	0 0.00 0.00	403 0.71
Not Applicable	47 0.30 43.93	32 0.20 32.65	47 0.30 37.90	49 0.31 35.00	183 1.16 38.69	570 3.60 40.28	2,241 14.16 37.07	5,558 35.12 30.47	5,027 31.76 25.40	1,727 10.91 20.92	339 2.14 19.72	6 0.04 42.86	15,826 28.05
Not Stated	4 0.39 3.74	6 0.59 6.12	1 0.10 0.81	2 0.20 1.43	12 1.18 2.54	34 3.34 2.40	133 13.05 2.20	328 32.19 1.80	329 32.29 1.66	144 14.13 1.74	26 2.55 1.51	0 0.00 0.00	1,019 1.81
Total	107 0.19	98 0.17	124 0.22	140 0.25	473 0.84	1,415 2.51	6,045 10.71	18,238 32.32	19,794 35.08	8,255 14.63	1,719 3.05	14 0.02	56,422 100.00

Note: In this table 'Not Classifiable' includes 61 Fathers whose occupation was recorded as 'Home Duties'.

Table E14

Mother's Occupation by Infant's Birthweight, Live Births and Stillbirths, 2001

Singleton Births

Mother's Occupation	Birthweight (grams)												Total
	500-749	750-999	1000-1249	1250-1499	1500-1999	2000-2499	2500-2999	3000-3499	3500-3999	4000-4499	4500 and over	Not Stated	
Frequency Row Per Cent Col. Per Cent													
Farmers & Farm Managers	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 0.94 0.71	1 0.94 0.21	2 1.89 0.14	6 5.66 0.10	47 44.34 0.26	31 29.25 0.16	15 14.15 0.18	3 2.83 0.17	0 0.00 0.00	106 0.19
Other Agricultural Occupations & Fishermen	0 0.00 0.00	1 1.67 1.02	0 0.00 0.00	0 0.00 0.00	1 1.67 0.21	0 0.00 0.00	2 3.33 0.03	23 38.33 0.13	20 33.33 0.10	12 20.00 0.15	1 1.67 0.06	0 0.00 0.00	60 0.11
Higher-Professional	1 0.04 0.93	1 0.04 1.02	2 0.09 1.61	4 0.18 2.86	10 0.44 2.11	37 1.63 2.61	197 8.66 3.26	683 30.04 3.74	894 39.31 4.52	377 16.58 4.57	66 2.90 3.84	2 0.09 14.29	2,274 4.03
Lower-Professional	6 0.10 5.61	11 0.18 11.22	10 0.16 8.06	14 0.22 10.00	40 0.64 8.46	95 1.52 6.71	506 8.08 8.37	1,915 30.57 10.50	2,322 37.06 11.73	1,094 17.46 13.25	251 4.01 14.60	1 0.02 7.14	6,265 11.10
Managers	6 0.20 5.61	3 0.10 3.06	4 0.13 3.23	7 0.23 5.00	20 0.67 4.23	53 1.78 3.75	306 10.25 5.06	895 29.99 4.91	1,134 38.00 5.73	460 15.42 5.57	96 3.22 5.58	0 0.00 0.00	2,984 5.29
Salaried-Employees	4 0.49 3.74	0 0.00 0.00	0 0.00 0.00	1 0.12 0.71	7 0.85 1.48	10 1.22 0.71	76 9.28 1.26	254 31.01 1.39	301 36.75 1.52	130 15.87 1.57	36 4.40 2.09	0 0.00 0.00	819 1.45
Non-Manual Workers	24 0.18 22.43	28 0.20 28.57	29 0.21 23.39	28 0.20 20.00	102 0.75 21.56	291 2.13 20.57	1,342 9.82 22.20	4,290 31.38 23.52	5,005 36.61 25.29	2,130 15.58 25.80	403 2.95 23.44	0 0.00 0.00	13,672 24.23
Other Non-Manual Workers	14 0.22 13.08	11 0.18 11.22	13 0.21 10.48	12 0.19 8.57	57 0.91 12.05	178 2.85 12.58	710 11.36 11.75	2,097 33.56 11.50	2,146 34.35 10.84	846 13.54 10.25	164 2.62 9.54	0 0.00 0.00	6,248 11.07
Skilled Manual Workers	1 0.19 0.93	1 0.19 1.02	2 0.38 1.61	2 0.38 1.43	3 0.57 0.63	14 2.67 0.99	50 9.52 0.83	158 30.10 0.87	196 37.33 0.99	78 14.86 0.94	19 3.62 1.11	1 0.19 7.14	525 0.93
Semi-skilled Manual Workers	5 0.16 4.67	3 0.09 3.06	12 0.38 9.68	8 0.25 5.71	32 1.01 6.77	96 3.04 6.78	391 12.38 6.47	1,100 34.83 6.03	1,047 33.15 5.29	398 12.60 4.82	66 2.09 3.84	0 0.00 0.00	3,158 5.60
Unskilled Manual Workers	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	8 47.06 0.04	9 52.94 0.05	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	17 0.03
Unemployed	7 0.27 6.54	7 0.27 7.14	6 0.24 4.84	7 0.27 5.00	34 1.33 7.19	112 4.39 7.92	423 16.59 7.00	955 37.45 5.24	726 28.47 3.67	227 8.90 2.75	43 1.69 2.50	3 0.12 21.43	2,550 4.52
Not Classifiable	6 0.35 5.61	3 0.18 3.06	2 0.12 1.61	7 0.41 5.00	19 1.12 4.02	58 3.41 4.10	214 12.57 3.54	597 35.06 3.27	569 33.41 2.87	188 11.04 2.28	40 2.35 2.33	0 0.00 0.00	1,703 3.02
Home Duties	26 0.17 24.30	22 0.15 22.45	38 0.25 30.65	45 0.30 32.14	132 0.87 27.91	433 2.86 30.60	1,711 11.29 28.30	4,927 32.50 27.02	5,114 33.73 25.84	2,196 14.49 26.60	510 3.36 29.67	6 0.04 42.86	15,160 26.87
Not Stated	7 0.79 6.54	7 0.79 7.14	6 0.68 4.84	4 0.45 2.86	15 1.70 3.17	36 4.09 2.54	111 12.60 1.84	289 32.80 1.58	280 31.78 1.41	104 11.80 1.26	21 2.38 1.22	1 0.11 7.14	881 1.56
Total	107 0.19	98 0.17	124 0.22	140 0.25	473 0.84	1,415 2.51	6,045 10.71	18,238 32.32	19,794 35.08	8,255 14.63	1,719 3.05	14 0.02	56,422 100.00

Note: 'Not Applicable' is not used in the classification of maternal occupation. See Appendix B for a description of the classification system for occupations.

Table E15

Father's Occupation by Interval in Years since Last Birth, Live Births and Stillbirths, 2001

Singleton Births

Father's Occupation	Interval in years since last birth										
	No Previous Births	1 year or less	>1 year to 2 years	> 2 years to 3 years	> 3 years to 4 years	> 4 years to 5 years	> 5 years to 6 years	More than 6 years	No. of Previous Births Unknown	Not Stated	Total
Frequency Row Per Cent Col. Per Cent											
Farmers & Farm Managers	821 30.41 3.54	35 1.30 6.08	540 20.00 7.21	545 20.19 6.46	314 11.63 5.68	172 6.37 4.89	94 3.48 4.33	162 6.00 3.25	0 0.00 0.00	17 0.63 3.35	2,700
Other Agricultural Occupations & Fishermen	168 32.06 0.72	8 1.53 1.39	65 12.40 0.87	107 20.42 1.27	59 11.26 1.07	37 7.06 1.05	28 5.34 1.29	50 9.54 1.00	0 0.00 0.00	2 0.38 0.39	524
Higher-Professional	1,468 37.81 6.33	29 0.75 5.03	632 16.28 8.44	790 20.35 9.37	421 10.84 7.61	201 5.18 5.71	108 2.78 4.98	204 5.25 4.09	0 0.00 0.00	30 0.77 5.92	3,883
Lower-Professional	837 38.91 3.61	12 0.56 2.08	329 15.30 4.39	392 18.22 4.65	235 10.93 4.25	131 6.09 3.72	60 2.79 2.77	127 5.90 2.55	0 0.00 0.00	28 1.30 5.52	2,151
Managers	1,752 35.48 7.55	32 0.65 5.56	731 14.80 9.76	943 19.10 11.18	561 11.36 10.14	320 6.48 9.09	180 3.65 8.30	390 7.90 7.82	0 0.00 0.00	29 0.59 5.72	4,938
Salaried-Employees	485 35.90 2.09	13 0.96 2.26	209 15.47 2.79	241 17.84 2.86	163 12.07 2.95	89 6.59 2.53	46 3.40 2.12	96 7.11 1.92	0 0.00 0.00	9 0.67 1.78	1,351
Non-Manual Workers	1,534 35.04 6.61	31 0.71 5.38	601 13.73 8.02	763 17.43 9.05	499 11.40 9.02	347 7.93 9.86	193 4.41 8.90	371 8.47 7.44	1 0.02 7.14	38 0.87 7.50	4,378
Other Non-Manual Workers	1,586 31.86 6.84	51 1.02 8.85	689 13.84 9.20	781 15.69 9.26	623 12.52 11.27	390 7.83 11.08	237 4.76 10.93	578 11.61 11.59	2 0.04 14.29	41 0.82 8.09	4,978
Skilled Manual Workers	3,113 33.98 13.42	101 1.10 17.53	1,342 14.65 17.92	1,587 17.33 18.82	1,042 11.38 18.84	620 6.77 17.62	403 4.40 18.58	874 9.54 17.52	0 0.00 0.00	78 0.85 15.38	9,160
Semi-skilled Manual Workers	974 33.59 4.20	29 1.00 5.03	384 13.24 5.13	520 17.93 6.17	315 10.86 5.70	222 7.66 6.31	123 4.24 5.67	313 10.79 6.28	0 0.00 0.00	20 0.69 3.94	2,900
Unskilled Manual Workers	186 28.48 0.80	11 1.68 1.91	100 15.31 1.34	91 13.94 1.08	74 11.33 1.34	48 7.35 1.36	32 4.90 1.48	103 15.77 2.06	0 0.00 0.00	8 1.23 1.58	653
Unemployed	492 31.58 2.12	38 2.44 6.60	309 19.83 4.13	229 14.70 2.72	153 9.82 2.77	92 5.91 2.61	67 4.30 3.09	148 9.50 2.97	0 0.00 0.00	30 1.93 5.92	1,558
Not Classifiable	176 43.67 0.76	5 1.24 0.87	62 15.38 0.83	50 12.41 0.59	43 10.67 0.78	20 4.96 0.57	13 3.23 0.60	29 7.20 0.58	1 0.25 7.14	4 0.99 0.79	403
Not Applicable	9,269 58.57 39.96	167 1.06 28.99	1,341 8.47 17.90	1,234 7.80 14.63	921 5.82 16.65	764 4.83 21.71	536 3.39 24.71	1,448 9.15 29.03	9 0.06 64.29	137 0.87 27.02	15,826
Not Stated	336 32.97 1.45	14 1.37 2.43	156 15.31 2.08	159 15.60 1.89	107 10.50 1.93	66 6.48 1.88	49 4.81 2.26	95 9.32 1.90	1 0.10 7.14	36 3.53 7.10	1,019
Total	23,197 41.11	576 1.02	7,490 13.27	8,432 14.94	5,530 9.80	3,519 6.24	2,169 3.84	4,988 8.84	14 0.02	507 0.90	56,422 100.00

Note: In this table 'Not Classifiable' includes 61 Fathers whose occupation was recorded as 'Home Duties'.

Table E16

Mother's Occupation by Interval in Years since Last Birth, Live Births and Stillbirths, 2001

Singleton Births

Mother's Occupation	Interval										
	Frequency Row Per Cent Col. Per Cent	No Previous Births	1 year or less	>1 year to 2 years	> 2 years to 3 years	> 3 years to 4 years	> 4 years to 5 years	> 5 years to 6 years	More than 6 years	No. of Previous Births Unknown	Not Stated
Farmers & Farm Managers	51 48.11 0.22	0 0.00 0.00	18 16.98 0.24	10 9.43 0.12	12 11.32 0.22	4 3.77 0.11	4 3.77 0.18	6 5.66 0.12	0 0.00 0.00	1 0.94 0.20	106
Other Agricultural Occupations & Fishermen	31 51.67 0.13	1 1.67 0.17	8 13.33 0.11	6 10.00 0.07	4 6.67 0.07	3 5.00 0.09	4 6.67 0.18	3 5.00 0.06	0 0.00 0.00	0 0.00 0.00	60
Higher-Professional	1,088 47.85 4.69	14 0.62 2.43	337 14.82 4.50	382 16.80 4.53	185 8.14 3.35	102 4.49 2.90	58 2.55 2.67	87 3.83 1.74	1 0.04 7.14	20 0.88 3.94	2,274
Lower-Professional	2,533 40.43 10.92	41 0.65 7.12	989 15.79 13.20	1,185 18.91 14.05	611 9.75 11.05	320 5.11 9.09	165 2.63 7.61	369 5.89 7.40	0 0.00 0.00	52 0.83 10.26	6,265
Managers	1,631 54.66 7.03	15 0.50 2.60	327 10.96 4.37	370 12.40 4.39	225 7.54 4.07	125 4.19 3.55	77 2.58 3.55	203 6.80 4.07	0 0.00 0.00	11 0.37 2.17	2,984
Salaried-Employees	466 56.90 2.01	4 0.49 0.69	78 9.52 1.04	111 13.55 1.32	59 7.20 1.07	33 4.03 0.94	15 1.83 0.69	46 5.62 0.92	0 0.00 0.00	7 0.85 1.38	819
Non-Manual Workers	6,849 50.10 29.53	88 0.64 15.28	1,385 10.13 18.49	1,783 13.04 21.15	1,253 9.16 22.66	719 5.26 20.43	438 3.20 20.19	1,085 7.94 21.75	3 0.02 21.43	69 0.50 13.61	13,672
Other Non-Manual Workers	3,024 48.40 13.04	54 0.86 9.38	615 9.84 8.21	665 10.64 7.89	516 8.26 9.33	371 5.94 10.54	252 4.03 11.62	713 11.41 14.29	1 0.02 7.14	37 0.59 7.30	6,248
Skilled Manual Workers	268 51.05 1.16	6 1.14 1.04	62 11.81 0.83	73 13.90 0.87	42 8.00 0.76	31 5.90 0.88	13 2.48 0.60	28 5.33 0.56	0 0.00 0.00	2 0.38 0.39	525
Semi-skilled Manual Workers	1,701 53.86 7.33	28 0.89 4.86	269 8.52 3.59	339 10.73 4.02	239 7.57 4.32	178 5.64 5.06	105 3.32 4.84	273 8.64 5.47	0 0.00 0.00	26 0.82 5.13	3,158
Unskilled Manual Workers	9 52.94 0.04	0 0.00 0.00	1 5.88 0.01	3 17.65 0.04	1 5.88 0.02	1 5.88 0.03	0 0.00 0.00	2 11.76 0.04	0 0.00 0.00	0 0.00 0.00	17
Unemployed	1,267 49.69 5.46	35 1.37 6.08	306 12.00 4.09	250 9.80 2.96	189 7.41 3.42	158 6.20 4.49	112 4.39 5.16	195 7.65 3.91	3 0.12 21.43	35 1.37 6.90	2,550
Not Classifiable	1,412 82.91 6.09	8 0.47 1.39	61 3.58 0.81	71 4.17 0.84	41 2.41 0.74	36 2.11 1.02	19 1.12 0.88	53 3.11 1.06	1 0.06 7.14	1 0.06 0.20	1,703
Home Duties	2,453 16.18 10.57	274 1.81 47.57	2,930 19.33 39.12	3,092 20.40 36.67	2,080 13.72 37.61	1,389 9.16 39.47	882 5.82 40.66	1,867 12.32 37.43	2 0.01 14.29	191 1.26 37.67	15,160
Not Stated	414 46.99 1.78	8 0.91 1.39	104 11.80 1.39	92 10.44 1.09	73 8.29 1.32	49 5.56 1.39	25 2.84 1.15	58 6.58 1.16	3 0.34 21.43	55 6.24 10.85	881
Total	23,197 41.11	576 1.02	7,490 13.27	8,432 14.94	5,530 9.80	3,519 6.24	2,169 3.84	4,988 8.84	14 0.02	507 0.90	56,422 100.00

Note: 'Not Applicable' is not used in the classification of maternal occupation. See Appendix B for a description of the classification system for occupations.

Table E17

Father's Occupation by Infant's Type of Feeding, Live Births Only, 2001

Singleton Births

Father's Occupation	Type of Feeding				
	Artificial	Breast	Combined	Not Stated	Total
Frequency					
Row Per Cent					
Col. Per Cent					
Farmers & Farm Managers	1,533	1,094	51	7	2,685
	57.09	40.74	1.90	0.26	
	4.70	4.97	3.79	5.79	4.78
Other Agricultural Occupations & Fishermen	317	194	9	2	522
	60.73	37.16	1.72	0.38	
	0.97	0.88	0.67	1.65	0.93
Higher-Professional	1,213	2,517	136	5	3,871
	31.34	65.02	3.51	0.13	
	3.72	11.43	10.11	4.13	6.90
Lower-Professional	730	1,332	76	4	2,142
	34.08	62.18	3.55	0.19	
	2.24	6.05	5.65	3.31	3.82
Managers	2,234	2,582	89	11	4,916
	45.44	52.52	1.81	0.22	
	6.85	11.72	6.62	9.09	8.76
Salaried-Employees	605	687	51	2	1,345
	44.98	51.08	3.79	0.15	
	1.85	3.12	3.79	1.65	2.40
Non-Manual Workers	2,198	2,012	145	7	4,362
	50.39	46.13	3.32	0.16	
	6.74	9.14	10.78	5.79	7.77
Other Non-Manual Workers	3,120	1,690	131	10	4,951
	63.02	34.13	2.65	0.20	
	9.56	7.67	9.74	8.26	8.82
Skilled Manual Workers	5,295	3,627	186	14	9,122
	58.05	39.76	2.04	0.15	
	16.23	16.47	13.83	11.57	16.26
Semi-skilled Manual Workers	2,078	755	45	5	2,883
	72.08	26.19	1.56	0.17	
	6.37	3.43	3.35	4.13	5.14
Unskilled Manual Workers	480	158	8	1	647
	74.19	24.42	1.24	0.15	
	1.47	0.72	0.59	0.83	1.15
Unemployed	947	517	77	4	1,545
	61.29	33.46	4.98	0.26	
	2.90	2.35	5.72	3.31	2.75
Not Classifiable	151	219	29	0	399
	37.84	54.89	7.27	0.00	
	0.46	0.99	2.16	0.00	0.71
Not Applicable	11,254	4,172	247	46	15,719
	71.59	26.54	1.57	0.29	
	34.49	18.94	18.36	38.02	28.01
Not Stated	472	466	65	3	1,006
	46.92	46.32	6.46	0.30	
	1.45	2.12	4.83	2.48	1.79
Total	32,627	22,022	1,345	121	56,115
	58.14	39.24	2.40	0.22	100.00

Note:

- In this table 'Not Classifiable' includes 60 fathers whose occupation was recorded as 'Home Duties'.
- 'Not Stated' contains 90 Early Neonatal Deaths for which Type of Feeding was not stated.

Table E18
Mother's Occupation by Infant's Type of Feeding, Live Births Only, 2001

Singleton Births

Mother's Occupation	Type of Feeding				
	Artificial	Breast	Combined	Not Stated	Total
Frequency					
Row Per Cent					
Col. Per Cent					
Farmers & Farm Managers	53 50.00 0.16	51 48.11 0.23	2 1.89 0.15	0 0.00 0.00	106 0.19
Other Agricultural Occupations & Fishermen	23 38.33 0.07	36 60.00 0.16	1 1.67 0.07	0 0.00 0.00	60 0.11
Higher-Professional	650 28.71 1.99	1,535 67.80 6.97	74 3.27 5.50	5 0.22 4.13	2,264 4.03
Lower-Professional	1,986 31.82 6.09	4,091 65.55 18.58	151 2.42 11.23	13 0.21 10.74	6,241 11.12
Managers	1,360 45.82 4.17	1,547 52.12 7.02	56 1.89 4.16	5 0.17 4.13	2,968 5.29
Salaried-Employees	343 41.98 1.05	443 54.22 2.01	30 3.67 2.23	1 0.12 0.83	817 1.46
Non-Manual Workers	8,468 62.27 25.95	4,872 35.83 22.12	236 1.74 17.55	23 0.17 19.01	13,599 24.23
Other Non-Manual Workers	4,044 65.03 12.39	2,060 33.12 9.35	104 1.67 7.73	11 0.18 9.09	6,219 11.08
Skilled Manual Workers	254 48.57 0.78	257 49.14 1.17	11 2.10 0.82	1 0.19 0.83	523 0.93
Semi-skilled Manual Workers	2,472 78.78 7.58	612 19.50 2.78	47 1.50 3.49	7 0.22 5.79	3,138 5.59
Unskilled Manual Workers	13 76.47 0.04	4 23.53 0.02	0 0.00 0.00	0 0.00 0.00	17 0.03
Unemployed	1,757 69.45 5.39	662 26.17 3.01	96 3.79 7.14	15 0.59 12.40	2,530 4.51
Not Classifiable	1,130 66.86 3.46	511 30.24 2.32	45 2.66 3.35	4 0.24 3.31	1,690 3.01
Home Duties	9,616 63.76 29.47	4,993 33.11 22.67	441 2.92 32.79	31 0.21 25.62	15,081 26.88
Not Stated	458 53.13 1.40	348 40.37 1.58	51 5.92 3.79	5 0.58 4.13	862 1.54
Total	32,627 58.14	22,022 39.24	1,345 2.40	121 0.22	56,115 100.00

Note: 'Not Applicable' is not used in the classification of maternal occupation. See Appendix B for a description of the classification system for occupations.

Table E19
Infant's Type of Feeding by Maternal Parity, Live Births Only, 2001

Singleton Births

Type of Feeding	Maternal Parity									
	0	1	2	3	4	5	6	More than 6	Not Stated	Total
Artificial	12,589	10,350	5,631	2,356	929	390	173	206	3	32,627
	38.58	31.72	17.26	7.22	2.85	1.20	0.53	0.63	0.01	
	54.60	59.96	60.47	59.39	65.98	65.88	69.20	80.16	27.27	58.14
Breast	9,797	6,520	3,457	1,502	440	185	65	50	6	22,022
	44.49	29.61	15.70	6.82	2.00	0.84	0.30	0.23	0.03	
	42.49	37.77	37.12	37.86	31.25	31.25	26.00	19.46	54.55	39.24
Combined	623	352	206	97	38	17	11	1	0	1,345
	46.32	26.17	15.32	7.21	2.83	1.26	0.82	0.07	0.00	
	2.70	2.04	2.21	2.45	2.70	2.87	4.40	0.39	0.00	2.40
Not Stated	47	40	18	12	1	0	1	0	2	121
	38.84	33.06	14.88	9.92	0.83	0.00	0.83	0.00	1.65	
	0.20	0.23	0.19	0.30	0.07	0.00	0.40	0.00	18.18	0.22
Total	23,056	17,262	9,312	3,967	1,408	592	250	257	11	56,115
	41.09	30.76	16.59	7.07	2.51	1.05	0.45	0.46	0.02	100.00

Appendix F

Wigglesworth Classification, 2001

Basis of System

In this section perinatal deaths are classified according to the system devised by Dr. J.S. Wigglesworth. The system is designed to be relatively straightforward and to overcome some of the inherent difficulties of subjectivity and lack of uniformity in the assignment of causes of perinatal death.⁴ With the aim of identifying areas with implications for perinatal care, five mutually exclusive and clinically relevant categories are suggested. Cross-classification of these categories by birthweight can then be used to highlight areas of particular concern.⁵

Method of Classification

The five broad pathological subgroups employed in the Wigglesworth classification are as follows:

1. Normally formed macerated stillbirth.
2. Congenital malformations (stillbirth or early neonatal death).
3. Conditions associated with immaturity (early neonatal death).
4. Asphyxial conditions developing in labour (stillbirth or early neonatal death).
5. Specific conditions other than the above.

The assignment of a unique Wigglesworth class to each perinatal death presents a number of difficulties. The first and most general of these results from the fact that no standard system has yet been devised for the translation of the ICD codes relating to main cause of death into the corresponding categories suggested by Wigglesworth. In most cases the assignment is straightforward, but in certain instances (for example, preterm births where asphyxia is indicated or stillbirths where antepartum haemorrhage is recorded), the appropriate classification is not immediately obvious and additional variables require consideration. For these reasons, gestational age and type of stillbirth (i.e. antepartum or intrapartum) are taken into account in the classification system described below. In adopting this system, note has also been taken of a number of pilot schemes carried out in Britain as well as the guidelines set out by Dr. Wigglesworth.⁶

⁴ Wigglesworth, J.S., 1980, "Monitoring Perinatal Mortality", *The Lancet*, Vol. 2, pp.684-686.

⁵ The analysis by Wigglesworth's categories, unlike the main report, includes 59 births that weighed less than 500 grams. The outcomes of these births were 46 stillbirths and 13 early neonatal deaths.

⁶ a) South East Thames Perinatal Monitoring Group, *Confidential Enquiry into Perinatal Deaths*, 1986.
b) Unpublished report, "Scottish Stillbirth and Neonatal Death Enquiry", based on 1985 data.

Wigglesworth Classes	Assignment Criteria	ICD Codes (where appropriate)
Macerated stillbirth	<ul style="list-style-type: none"> All intrapartum deaths where maceration is indicated as main cause of death. Antepartum deaths not due to antepartum haemorrhage and not assigned to any other category. 	-
Congenital malformations (stillbirth or early neonatal death)	<ul style="list-style-type: none"> All major congenital anomalies (stillbirth or early neonatal deaths). 	740-742, 745-748, 750.3, 750.6, 751.1-751.8, 753, 756.0, 756.6, 756.7, 758-759
Immaturity (early neonatal death)	<ul style="list-style-type: none"> All first week deaths due to structural lung immaturity and Hyaline Membrane Disease. First week deaths of less than 37 weeks gestation period where cause of death is not stated or does not fall into any other category. 	765, 769.0, 770.4, 772.1, 777.5
Asphyxia (stillbirth or early neonatal death)	<ul style="list-style-type: none"> All first week deaths due to birth trauma and birth asphyxia. First week deaths of 37 or more weeks gestation or gestation unknown where cause is not stated or does not fall into any other category. Antepartum deaths due to antepartum haemorrhage. All intrapartum stillbirths except those due to specific conditions or congenital malformations. 	762.0, 762.1, 762.4, 762.5, 767-768
Specific conditions (stillbirth or early neonatal death)	<ul style="list-style-type: none"> Infection, isoimmunisation or other haemorrhage in the newborn. 	760.1-760.5, 762.3, 770.0, 771, 773, 775, 777.0, 778.0

Results

Tabulations based on the Wigglesworth classification are presented in the following pages. Table F1 indicates the percentage of perinatal deaths attributable to each cause for 2001. Table F2 provides a classification of cause of death by birthweight and indicates cause and weight specific perinatal mortality rates for 2001. It is this table that shows the practical clinical implications of the Wigglesworth coding. Figure F1 is derived from the data contained in Table F2 and shows how the percentage contribution to perinatal mortality of each cause changes with birthweight group. Table F3 provides the same cross tabulations as Table F2 but uses a different definition of stillbirth based on 28 weeks gestation period. This is provided to facilitate possible local or international comparisons.

Table F1
Wigglesworth Classification for all Perinatal Deaths, 2001

Class	Frequency	Per Cent	Cumulative Frequency	Cumulative Per Cent
Macerated Stillbirths	214	38.35	214	38.35
Congenital Malformations	146	26.16	360	64.52
Immaturity	74	13.26	434	77.78
Asphyxial Conditions	87	15.59	521	93.37
Specific Conditions	37	6.63	558	100.00

Table F2
Birthweight Specific Perinatal Mortality Rates, 2001

Wigglesworth Classification

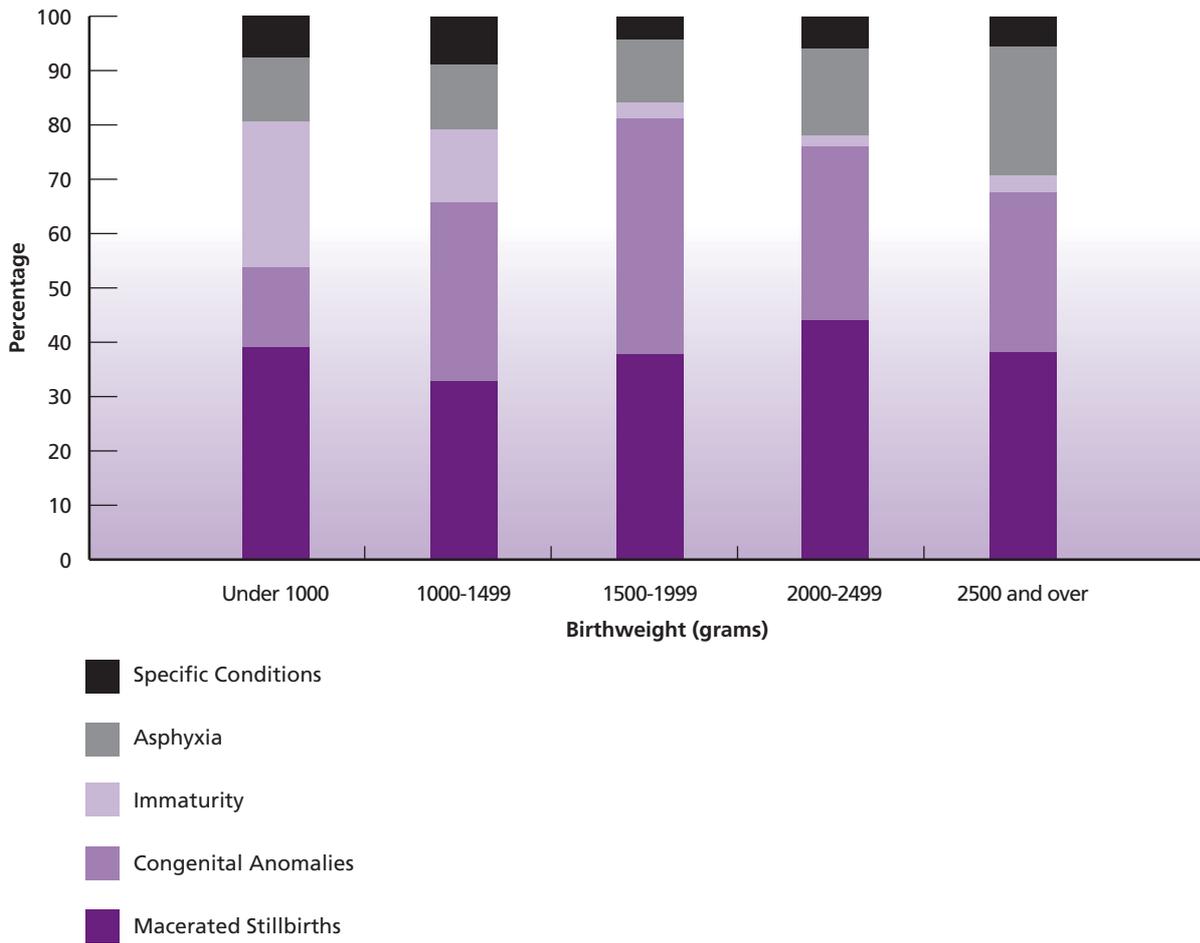
Birthweight (grams)	Macerated Stillbirths		Congenital Anomalies		Immaturity		Asphyxia		Specific Conditions		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Under 1000	82	244.78	31	92.54	56	167.16	25	74.63	16	47.76	210	626.87
1000-1499	22	60.94	22	60.94	9	24.93	8	22.16	6	16.62	67	185.60
1500-1999	26	37.36	30	43.10	2	2.87	8	11.49	3	4.31	69	99.14
2000-2499	22	11.63	16	8.46	1	0.53	8	4.23	3	1.59	50	26.43
2500 and over	61	1.11	47	0.85	5	0.09	38	0.69	9	0.16	160	2.91
Not Stated	1	66.67	0	0.00	1	66.67	0	0.00	0	0.00	2	133.33
Total	214	3.67	146	2.50	74	1.27	87	1.49	37	0.63	558	9.57

Table F3
Numbers of Perinatal Deaths and Mortality Rates by Cause of Death and Birthweight, 2001

Wigglesworth Classification
using the ≥ 28 weeks definition of a Stillbirth

Birthweight (grams)	Macerated Stillbirths		Congenital Anomalies		Immaturity		Asphyxia		Specific Conditions		Total	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Under 1000	24	102.56	19	81.20	56	239.32	5	21.37	5	21.37	109	465.81
1000-1499	22	61.45	22	61.45	9	25.14	7	19.55	4	11.17	64	178.77
1500-1999	25	35.97	30	43.17	2	2.88	8	11.51	3	4.32	68	97.84
2000-2499	22	11.63	16	8.46	1	0.53	8	4.23	3	1.59	50	26.43
2500 and over	61	1.11	47	0.85	5	0.09	38	0.69	9	0.16	160	2.91
Not Stated	1	66.67	0	0.00	1	66.67	0	0.00	0	0.00	2	133.33
Total	155	2.66	134	2.30	74	1.27	66	1.13	24	0.41	453	7.78

Figure F1
Wigglesworth Classification: Percentage Distribution of Perinatal Cause of Death by Birthweight Groups, 2001



Source: See Appendix F, Table F2.

Note: 'Not Stated' data are not included in the calculation of percentages.

Appendix G

Domiciliary Births: 1999, 2000 and 2001 Cross-Tabulations of Selected Variables: 2001

These births have been included, where appropriate, in the analysis presented in previous sections.

In 1999 there were 246 domiciliary births. Of these, there was one early neonatal death and no stillbirths. For 2000 the number of domiciliary births fell to 216 and again reported one early neonatal death and no stillbirths. There were no domiciliary multiple births in 1999 or 2000.

In 2001 the number of domiciliary births increased to 245. Of these, there was one stillbirth and no early neonatal deaths. There was one set of domiciliary twin births in 2001.

The tables that follow (G1-G8) present selected statistics on domiciliary births for 1999, 2000 and 2001 and contain a range of cross-tabulations relating to all domiciliary births for 2001. A full list of these tables is given in the Table of Contents. The format of each cross-tabulation is identical. The values of the two variables are given along the top and left. The top number in each cell indicates the number of observations relating to that combination of variable values. The second number indicates the percentage contribution of that cell to the total for the whole row. The last number indicates the percentage contribution of that cell to the total for the whole column. The figures at the end of each row or column give the overall total for that row or column, and the associated percentages express each of these figures as a percentage of the grand total.

Table G1
Trends in Selected Statistics, Domiciliary Births, 1999, 2000 and 2001

Selected Statistics	1999	2000	2001
General Characteristics			
Average Age of Mother in years	33.47	33.33	33.18
Average Maternal Parity	1.52	1.62	1.40
Single Mothers (%)	25.20	29.63	31.56
Average weight in grams			
- Total Live Births	3699.46	3726.71	3686.75
Low birthweight <2500 grams (%)			
- Total Live Births	0.43	1.86	0.00
Average Gestational Age at delivery in weeks	40.04	39.92	40.02
Average interval since last birth in years	3.46	3.40	3.82
Perinatal Care			
Midwife and Hospital/GP combined antenatal care (%)*	59.76	57.87	55.33
Average Gestational Age at time of first visit to doctor in weeks*	19.10	17.71	18.14
Immunity to Rubella (%)	92.34	90.70	93.44
Mother's breastfeeding (%)	98.25	96.63	95.02

*This applies to the % homebirths where antenatal care is stated as combined, rather than Antenatal Care with midwife only.

Note:

- There were no domiciliary multiple births in either 1999 or 2000.
- There was 1 set of domiciliary Twin births in 2001.
- Missing values are not included in the calculation of percentages.

Table G2
Age of Mother by Maternal Parity, 2001

Domiciliary Births

Age of Mother	Maternal Parity								
	0	1	2	3	4	5	6	Not Stated	Total
15-19	1	0	0	0	0	0	0	0	1
	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
20-24	8	7	0	0	0	0	0	0	15
	53.33	46.67	0.00	0.00	0.00	0.00	0.00	0.00	
	13.33	8.33	0.00	0.00	0.00	0.00	0.00	0.00	6.12
25-29	23	17	8	3	0	0	0	0	51
	45.10	33.33	15.69	5.88	0.00	0.00	0.00	0.00	
	38.33	20.24	14.29	8.82	0.00	0.00	0.00	0.00	20.82
30-34	22	30	18	7	3	0	1	0	81
	27.16	37.04	22.22	8.64	3.70	0.00	1.23	0.00	
	36.67	35.71	32.14	20.59	37.50	0.00	100.00	0.00	33.06
35-39	6	24	23	19	4	1	0	0	77
	7.79	31.17	29.87	24.68	5.19	1.30	0.00	0.00	
	10.00	28.57	41.07	55.88	50.00	100.00	0.00	0.00	31.43
40-44	0	5	7	5	1	0	0	0	18
	0.00	27.78	38.89	27.78	5.56	0.00	0.00	0.00	
	0.00	5.95	12.50	14.71	12.50	0.00	0.00	0.00	7.35
45 and over	0	1	0	0	0	0	0	0	1
	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
	0.00	1.19	0.00	0.00	0.00	0.00	0.00	0.00	0.41
Not Stated	0	0	0	0	0	0	0	1	1
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	0.41
Total	60	84	56	34	8	1	1	1	245
	24.49	34.29	22.86	13.88	3.27	0.41	0.41	0.41	100.00

Table G3
Age of Mother by Gestation Period at Delivery, 2001

Domiciliary Births

Age of Mother	Gestation Period (weeks)				
	32-36	37-41	42 and over	Not Stated	Total
15-19	0	1	0	0	1
	0.00	100.00	0.00	0.00	
	0.00	0.47	0.00	0.00	0.41
20-24	0	14	1	0	15
	0.00	93.33	6.67	0.00	
	0.00	6.51	3.85	0.00	6.12
25-29	0	44	7	0	51
	0.00	86.27	13.73	0.00	
	0.00	20.47	26.92	0.00	20.82
30-34	3	73	5	0	81
	3.70	90.12	6.17	0.00	
	100.00	33.95	19.23	0.00	33.06
35-39	0	66	11	0	77
	0.00	85.71	14.29	0.00	
	0.00	30.70	42.31	0.00	31.43
40-44	0	16	2	0	18
	0.00	88.89	11.11	0.00	
	0.00	7.44	7.69	0.00	7.35
45 and over	0	1	0	0	1
	0.00	100.00	0.00	0.00	
	0.00	0.47	0.00	0.00	0.41
Not Stated	0	0	0	1	1
	0.00	0.00	0.00	100.00	
	0.00	0.00	0.00	100.00	0.41
Total	3	215	26	1	245
	1.22	87.76	10.61	0.41	100.00

Table G4
Birthweight by Gestation Period at Delivery, 2001

Domiciliary Births

Birthweight (grams)	Gestation Period (weeks)				
	32-36	37-41	42 and over	Not Stated	Total
Frequency					
Row Per Cent					
Col. Per Cent					
2500-2999	2	13	0	0	15
	13.33	86.67	0.00	0.00	
	66.67	6.05	0.00	0.00	6.12
3000-3499	0	71	4	0	75
	0.00	94.67	5.33	0.00	
	0.00	33.02	15.38	0.00	30.61
3500-3999	1	65	11	0	77
	1.30	84.42	14.29	0.00	
	33.33	30.23	42.31	0.00	31.43
4000-4499	0	54	8	0	62
	0.00	87.10	12.90	0.00	
	0.00	25.12	30.77	0.00	25.31
4500 and over	0	12	3	0	15
	0.00	80.00	20.00	0.00	
	0.00	5.58	11.54	0.00	6.12
Not Stated	0	0	0	1	1
	0.00	0.00	0.00	100.00	
	0.00	0.00	0.00	100.00	0.41
Total	3	215	26	1	245
	1.22	87.76	10.61	0.41	100.00

Table G5
Mother's Occupation by Birthweight, 2001

Domiciliary Births

Mother's Occupation	Birthweight (grams)						
	2500-2999	3000-3499	3500-3999	4000-4499	4500 and over	Not Stated	Total
Other Agricultural Occupations & Fishermen	0 0.00 0.00	1 100.00 1.33	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	1 0.41
Higher-Professional	0 0.00 0.00	6 30.00 8.00	6 30.00 7.79	8 40.00 12.90	0 0.00 0.00	0 0.00 0.00	20 8.16
Lower-Professional	5 6.58 33.33	14 18.42 18.67	31 40.79 40.26	21 27.63 33.87	5 6.58 33.33	0 0.00 0.00	76 31.02
Managers	0 0.00 0.00	4 44.44 5.33	0 0.00 0.00	0 0.00 0.00	5 55.56 33.33	0 0.00 0.00	9 3.67
Salaried-Employees	0 0.00 0.00	1 25.00 1.33	1 25.00 1.30	2 50.00 3.23	0 0.00 0.00	0 0.00 0.00	4 1.63
Non-Manual Workers	1 4.00 6.67	8 32.00 10.67	8 32.00 10.39	6 24.00 9.68	2 8.00 13.33	0 0.00 0.00	25 10.20
Other Non-Manual Workers	1 4.35 6.67	8 34.78 10.67	6 26.09 7.79	7 30.43 11.29	1 4.35 6.67	0 0.00 0.00	23 9.39
Skilled Manual Workers	1 20.00 6.67	2 40.00 2.67	1 20.00 1.30	1 20.00 1.61	0 0.00 0.00	0 0.00 0.00	5 2.04
Semi-skilled Manual Workers	0 0.00 0.00	1 50.00 1.33	1 50.00 1.30	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	2 0.82
Unemployed	0 0.00 0.00	3 100.00 4.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	3 1.22
Not Classifiable	0 0.00 0.00	1 33.33 1.33	1 33.33 1.30	1 33.33 1.61	0 0.00 0.00	0 0.00 0.00	3 1.22
Home Duties	7 10.45 46.67	22 32.84 29.33	21 31.34 27.27	14 20.90 22.58	2 2.99 13.33	1 1.49 100.00	67 27.35
Not Stated	0 0.00 0.00	4 57.14 5.33	1 14.29 1.30	2 28.57 3.23	0 0.00 0.00	0 0.00 0.00	7 2.86
Total	15 6.12	75 30.61	77 31.43	62 25.31	15 6.12	1 0.41	245 100.00

Note: 'Not Applicable' is not used in the classification of maternal occupation. See Appendix B for a description of the classification system for occupations.

Table G6
Marital Status by Age of Mother, 2001

Domiciliary Births

Marital Status	Age of Mother								Total
	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	Not Stated	
Frequency									
Row Per Cent									
Col. Per Cent									
Married	0	6	22	57	59	15	0	1	160
	0.00	3.75	13.75	35.63	36.88	9.38	0.00	0.63	
	0.00	40.00	43.14	70.37	76.62	83.33	0.00	100.00	65.31
Single	1	9	27	23	15	1	1	0	77
	1.30	11.69	35.06	29.87	19.48	1.30	1.30	0.00	
	100.00	60.00	52.94	28.40	19.48	5.56	100.00	0.00	31.43
Widowed	0	0	2	0	0	0	0	0	2
	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
	0.00	0.00	3.92	0.00	0.00	0.00	0.00	0.00	0.82
Separated	0	0	0	1	2	1	0	0	4
	0.00	0.00	0.00	25.00	50.00	25.00	0.00	0.00	
	0.00	0.00	0.00	1.23	2.60	5.56	0.00	0.00	1.63
Divorced	0	0	0	0	1	1	0	0	2
	0.00	0.00	0.00	0.00	50.00	50.00	0.00	0.00	
	0.00	0.00	0.00	0.00	1.30	5.56	0.00	0.00	0.82
Total	1	15	51	81	77	18	1	1	245
	0.41	6.12	20.82	33.06	31.43	7.35	0.41	0.41	100.00

Table G7
Father's Occupation by Infant's Type of Feeding, Live Births Only, 2001

Domiciliary Births

Father's Occupation	Type of Feeding				
	Artificial	Breast	Combined	Not Stated	Total
Frequency					
Row Per Cent					
Col. Per Cent					
Farmers & Farm Managers	0 0.00 0.00	7 100.00 3.06	0 0.00 0.00	0 0.00 0.00	7 2.87
Other Agricultural Occupations & Fishermen	0 0.00 0.00	3 100.00 1.31	0 0.00 0.00	0 0.00 0.00	3 1.23
Higher-Professional	2 5.00 16.67	37 92.50 16.16	1 2.50 100.00	0 0.00 0.00	40 16.39
Lower-Professional	1 2.27 8.33	43 97.73 18.78	0 0.00 0.00	0 0.00 0.00	44 18.03
Managers	3 10.71 25.00	25 89.29 10.92	0 0.00 0.00	0 0.00 0.00	28 11.48
Salaried-Employees	1 11.11 8.33	8 88.89 3.49	0 0.00 0.00	0 0.00 0.00	9 3.69
Non-Manual Workers	0 0.00 0.00	23 100.00 10.04	0 0.00 0.00	0 0.00 0.00	23 9.43
Other Non-Manual Workers	4 16.67 33.33	19 79.17 8.30	0 0.00 0.00	1 4.17 50.00	24 9.84
Skilled Manual Workers	1 2.08 8.33	46 95.83 20.09	0 0.00 0.00	1 2.08 50.00	48 19.67
Semi-skilled Manual Workers	0 0.00 0.00	7 100.00 3.06	0 0.00 0.00	0 0.00 0.00	7 2.87
Not Classifiable	0 0.00 0.00	4 100.00 1.75	0 0.00 0.00	0 0.00 0.00	4 1.64
Not Applicable	0 0.00 0.00	6 100.00 2.62	0 0.00 0.00	0 0.00 0.00	6 2.46
Not Stated	0 0.00 0.00	1 100.00 0.44	0 0.00 0.00	0 0.00 0.00	1 0.41
Total	12 4.92	229 93.85	1 0.41	2 0.82	244 100.00

Note: In this table 'Not Classifiable' includes 2 Fathers whose occupation was recorded as 'Home Duties'.

Table G8
Mother's Occupation by Infant's Type of Feeding, Live Births Only, 2001

Domiciliary Births

Mother's Occupation	Type of Feeding				
	Artificial	Breast	Combined	Not Stated	Total
Frequency					
Row Per Cent					
Col. Per Cent					
Other Agricultural Occupations & Fishermen	0 0.00 0.00	1 100.00 0.44	0 0.00 0.00	0 0.00 0.00	1 0.41
Higher-Professional	1 5.00 8.33	19 95.00 8.30	0 0.00 0.00	0 0.00 0.00	20 8.20
Lower-Professional	2 2.67 16.67	72 96.00 31.44	0 0.00 0.00	1 1.33 50.00	75 30.74
Managers	0 0.00 0.00	9 100.00 3.93	0 0.00 0.00	0 0.00 0.00	9 3.69
Salaried-Employees	0 0.00 0.00	4 100.00 1.75	0 0.00 0.00	0 0.00 0.00	4 1.64
Non-Manual Workers	0 0.00 0.00	24 96.00 10.48	1 4.00 100.00	0 0.00 0.00	25 10.25
Other Non-Manual Workers	4 17.39 33.33	19 82.61 8.30	0 0.00 0.00	0 0.00 0.00	23 9.43
Skilled Manual Workers	0 0.00 0.00	5 100.00 2.18	0 0.00 0.00	0 0.00 0.00	5 2.05
Semi-skilled Manual Workers	0 0.00 0.00	2 100.00 0.87	0 0.00 0.00	0 0.00 0.00	2 0.82
Unemployed	0 0.00 0.00	3 100.00 1.31	0 0.00 0.00	0 0.00 0.00	3 1.23
Not Classifiable	0 0.00 0.00	3 100.00 1.31	0 0.00 0.00	0 0.00 0.00	3 1.23
Home Duties	5 7.46 41.67	61 91.04 26.64	0 0.00 0.00	1 1.49 50.00	67 27.46
Not Stated	0 0.00 0.00	7 100.00 3.06	0 0.00 0.00	0 0.00 0.00	7 2.87
Total	12 4.92	229 93.85	1 0.41	2 0.82	244 100.00

Note: 'Not Applicable' is not used in the classification of maternal occupation. See Appendix B for a description of the classification system for occupations.



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