7. MATERNAL COUNTRY OF BIRTH

In this section maternal countries of birth are combined into English-speaking and other regional groups. The country groups and individual countries are listed in Appendix 3. Recent trends in confinements for individual maternal countries of birth are shown in Table 4 (page 20).

Trends in confinements

Between 1998 and 2002, about 20 per cent of mothers were born in non-English speaking countries (Table 54). The proportion of mothers born in Southern European countries continued to slowly decline, while the proportion of mothers in other groups remained fairly stable.

| TABLE 54 | | | | |
|-------------|-------------------|------------------|-------------|-------------|
| CONFINEMENT | S AND RIPTHS BY (| COLINTRY OF BIRT | H CBUILD NO | N 1998_2002 |

| | | 1998 | 1 | 999 | | /ear 2000 | 9 | 001 | | 2002 |
|-------------------------|-------|-------|-------|-------|-------|--------------|-------|-------|-------|-------|
| | No. | % | No. | % | No. | % | No. | % | No. | % |
| Confinements | | | | | | | | | | |
| English speaking | 67971 | 79.9 | 68381 | 79.5 | 68105 | 78.8 | 67275 | 79.7 | 67268 | 79.5 |
| Central & South America | | 0.8 | 725 | 0.8 | 708 | 0.8 | 697 | 0.8 | 739 | 0.9 |
| Melanesia, Micronesia & | | 0.0 | 0 | 0.0 | | 0.0 | | 0.0 | | 0.0 |
| Polynesia | 1590 | 1.9 | 1540 | 1.8 | 1606 | 1.9 | 1544 | 1.8 | 1534 | 1.8 |
| Southern Europe | 1380 | 1.6 | 1337 | 1.6 | 1217 | 1.4 | 1129 | 1.3 | 1001 | 1.2 |
| Western & Northern | | | | | | | | | | |
| Europe | 646 | 0.8 | 690 | 0.8 | 671 | 0.8 | 631 | 0.7 | 614 | 0.7 |
| Eastern Europe, | | | | | | | | | | |
| Russia, Central Asian | | | | | | | | | | |
| & Baltic States | 362 | 0.4 | 421 | 0.5 | 428 | 0.5 | 412 | 0.5 | 458 | 0.5 |
| Middle East & Africa | 3670 | 4.3 | 3579 | 4.2 | 3685 | 4.3 | 3688 | 4.4 | 3653 | 4.3 |
| South East Asia | 4157 | 4.9 | 4659 | 5.4 | 5085 | 5.9 | 4478 | 5.3 | 4557 | 5.4 |
| North East Asia | 3097 | 3.6 | 3225 | 3.8 | 3449 | 4.0 | 2965 | 3.5 | 2962 | 3.5 |
| Southern Asia | 1349 | 1.6 | 1398 | 1.6 | 1476 | 1.7 | 1535 | 1.8 | 1716 | 2.0 |
| Other/Not stated | 167 | 0.2 | 12 | 0.0 | 30 | 0.0 | 25 | 0.0 | 85 | 0.1 |
| TOTAL | 85072 | 100.0 | 85967 | 100.0 | 86460 | 100.0 | 84379 | 100.0 | 84587 | 100.0 |
| Births | | | | | | | | | | |
| English speaking | 69008 | 80.0 | 69460 | 79.6 | 69300 | 78.8 | 68524 | 79.8 | 68449 | 79.6 |
| Central & South America | 689 | 0.8 | 730 | 0.8 | 716 | 0.8 | 707 | 0.8 | 755 | 0.9 |
| Melanesia, Micronesia & | | | | | | | | | | |
| Polynesia | 1610 | 1.9 | 1555 | 1.8 | 1636 | 1.9 | 1567 | 1.8 | 1555 | 1.8 |
| Southern Europe | 1412 | 1.6 | 1361 | 1.6 | 1256 | 1.4 | 1153 | 1.3 | 1022 | 1.2 |
| Western & Northern | | | | | | | | | | |
| Europe | 652 | 0.8 | 710 | 0.8 | 688 | 0.8 | 643 | 0.7 | 627 | 0.7 |
| Eastern Europe, | | | | | | | | | | |
| Russia, Central Asian | | | | | | | | | | |
| & Baltic States | 365 | 0.4 | 423 | 0.5 | 439 | 0.5 | 418 | 0.5 | 468 | 0.5 |
| Middle East & Africa | 3731 | 4.3 | 3644 | 4.2 | 3747 | 4.3 | 3758 | 4.4 | 3711 | 4.3 |
| South East Asia | 4181 | 4.8 | 4707 | 5.4 | 5127 | 5.8 | 4527 | 5.3 | 4595 | 5.3 |
| North East Asia | 3118 | 3.6 | 3266 | 3.7 | 3483 | 4.0 | 2982 | 3.5 | 3000 | 3.5 |
| Southern Asia | 1360 | 1.6 | 1420 | 1.6 | 1499 | 1.7 | 1554 | 1.8 | 1738 | 2.0 |
| Other/Not stated | 179 | 0.2 | 13 | 0.0 | 31 | 0.0 | 25 | 0.0 | 85 | 0.1 |
| TOTAL | 86305 | 100.0 | 87289 | 100.0 | 87922 | 100.0 | 85858 | 100.0 | 86005 | 100.0 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Maternal age

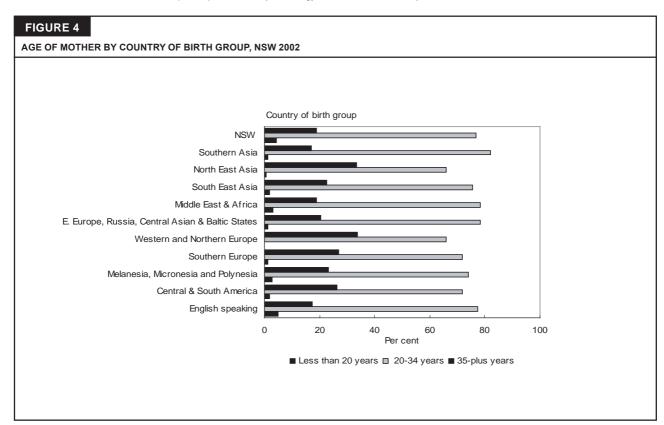
Births to teenage mothers were more common among mothers born in English-speaking countries than non-English speaking countries (Table 55, Figure 4), while the largest proportions of mothers aged 35 years and over were born in Western and Northern Europe (33.9 per cent), and North East Asia (33.5 per cent).

TABLE 55

AGE OF MOTHER BY COUNTRY OF BIRTH GROUP, NSW 2002

| Country of birth group | | | | | Maternal a | ge (years) | | | | |
|-----------------------------------|------|-----|-------|-------|------------|------------|------|--------|-------|-------|
| | 12- | 19 | : | 20-34 | 35 | 5+ | Nots | stated | Т | OTAL |
| | No. | % | No. | % | No. | % | No. | % | No. | % |
| English speaking | 3340 | 5.0 | 52149 | 77.5 | 11731 | 17.4 | 48 | 0.1 | 67268 | 100.0 |
| Central & South America | 14 | 1.9 | 530 | 71.7 | 195 | 26.4 | 0 | 0.0 | 739 | 100.0 |
| Melanesia, Micronesia & Polynesia | 44 | 2.9 | 1133 | 73.9 | 356 | 23.2 | 1 | 0.1 | 1534 | 100.0 |
| Southern Europe | 13 | 1.3 | 718 | 71.7 | 270 | 27.0 | 0 | 0.0 | 1001 | 100.0 |
| Western & Northern Europe | 2 | 0.3 | 404 | 65.8 | 208 | 33.9 | 0 | 0.0 | 614 | 100.0 |
| Eastern Europe, Russia, Central | | | | | | | | | | |
| Asian & Baltic States | 6 | 1.3 | 358 | 78.2 | 94 | 20.5 | 0 | 0.0 | 458 | 100.0 |
| Middle East & Africa | 108 | 3.0 | 2858 | 78.2 | 686 | 18.8 | 1 | 0.0 | 3653 | 100.0 |
| South East Asia | 84 | 1.8 | 3441 | 75.5 | 1029 | 22.6 | 3 | 0.1 | 4557 | 100.0 |
| North East Asia | 18 | 0.6 | 1950 | 65.8 | 993 | 33.5 | 1 | 0.0 | 2962 | 100.0 |
| Southern Asia | 19 | 1.1 | 1405 | 81.9 | 290 | 16.9 | 2 | 0.1 | 1716 | 100.0 |
| Other/Not stated | 4 | 4.7 | 61 | 71.8 | 20 | 23.5 | 0 | 0.0 | 85 | 100.0 |
| TOTAL | 3652 | 4.3 | 65007 | 76.9 | 15872 | 18.8 | 56 | 0.1 | 84587 | 100.0 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.



 $Source: \ NSW\ \textit{Midwives}\ \textit{Data}\ \textit{Collection}\ (\textit{HOIST}).\ \textit{Centre}\ \textit{for}\ \textit{Epidemiology}\ \textit{and}\ \textit{Research}, \textit{NSW}\ \textit{Department}\ \textit{of}\ \textit{Health}.$

Health area of residence

In 2002, the proportion of mothers born in non-English speaking countries was highest in the South Western Sydney Area (39.5 per cent), followed by Central Sydney and Western Sydney Areas (38.8 and 36.0 per cent respectively). Five per cent of mothers were born in South East Asian countries, 41.0 per cent of whom were resident in the South Western Sydney Area. Four per

cent of mothers were born in Middle Eastern or African countries and 65.1 per cent of these mothers were resident in the South Western or Western Sydney Areas. A further 3.5 per cent of mothers were born in North East Asian countries, the majority living in the Central Sydney, South Eastern Sydney, Northern Sydney or Western Sydney Areas (Table 56).

| Health Area | English speakin | g | Cent & Sou Amer | th | Melar Micro 8 Polyr | nesia | E | outhe Europ | e No | estern & orthern urope | Ea Eu Ru Ca As | ry of bastern urope ussia, entral sian & saltic tates | N | roup liddle East & Africa | | South East Asia | E | orth East Asia | | therr sia | - 1 | ther- Not ated | · то | TAL |
|-------------------------------|--------------------|--------------|--------------------------|-----|------------------------------|-------|------|----------------|---------|---------------------------------|----------------------------|---|-----------|---------------------------------------|------------|-----------------------|-----------|----------------------|-----------|--------------|-----|----------------------|--------------|-----|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No | o. % | No. | % | No. | % | No. | % | No. | % | No. | |
| Central | | | | | | | | | | | | | | | | | | | | | | | | |
| Sydney Northern | 4014 | 61.0 | 84 | 1.3 | 200 | 3.0 | 146 | 2.2 | 57 | 0.9 | 56 | 0.9 | 496 | 7.5 | 602 | 9.2 | 659 | 10.0 | 258 | 3.9 | 7 | 0.1 | 6579 | 100 |
| Sydney Western | 7352 | 79.4 | 80 | 0.9 | 106 | 1.1 | 78 | 8.0 | 173 | 1.9 | 76 | 8.0 | 223 | 2.4 | 367 | 4.0 | 608 | 6.6 | 190 | 2.1 | 5 | 0.1 | 9258 | 100 |
| Sydney | 7083 | 64.1 | 112 | 1.0 | 421 | 3.8 | 152 | 1.4 | 56 | 0.5 | 59 | 0.5 | 1054 | 9.5 | 803 | 7.3 | 625 | 5.7 | 680 | 6.2 | 6 | 0.1 | 11051 | 100 |
| Wentworth South Western | 4213 | 91.5 | 18 | 0.4 | 44 | 1.0 | 39 | 8.0 | 33 | 0.7 | 13 | 0.3 | 57 | 1.2 | 95 | 2.1 | 27 | 0.6 | 64 | 1.4 | 3 | 0.1 | 4606 | |
| Sydney Central | 7568 | 60.4 | 254 | 2.0 | 504 | 4.0 | 303 | 2.4 | 57 | 0.5 | 79 | 0.6 | 1323 | 10.6 | 1869 | 14.9 | 312 | 2.5 | 243 | 1.9 | 14 | 0.1 | 12526 | 100 |
| Coast | 3390 | 95.2 | 13 | 0.4 | 13 | 0.4 | 6 | 0.2 | 25 | 0.7 | 6 | 0.2 | 15 | 0.4 | 58 | 1.6 | 22 | 0.6 | 11 | 0.3 | 1 | 0.0 | 3560 | 100 |
| Hunter | 6703 | 96.9 | 12 | 0.2 | 28 | 0.4 | 17 | 0.2 | 20 | 0.3 | 6 | 0.1 | 17 | 0.2 | 68 | 1.0 | 26 | 0.4 | 18 | 0.3 | 3 | 0.0 | 6918 | 100 |
| Illawarra South Eastern | 3975 | 91.8 | 33 | 0.8 | 24 | 0.6 | 90 | 2.1 | 22 | 0.5 | 10 | 0.2 | 46 | 1.1 | 80 | 1.8 | 33 | 0.8 | 16 | 0.4 | 0 | 0.0 | 4329 | |
| Sydney Northern | 7106 | 75.8 | 113 | 1.2 | 121 | 1.3 | 147 | 1.6 | 113 | 1.2 | 132 | 1.4 | 360 | 3.8 | 483 | 5.2 | 586 | 6.3 | 180 | 1.9 | 29 | 0.3 | 9370 | 100 |
| Rivers Mid North | 2625 | 96.3 | - | - | 9 | 0.3 | - | - | 17 | 0.6 | - | - | 9 | 0.3 | 35 | 1.3 | 13 | 0.5 | 5 | 0.2 | 1 | 0.0 | 2725 | 100 |
| Coast New | 2660 | 96.7 | - | - | - | - | - | - | 14 | 0.5 | - | - | 5 | 0.2 | 28 | 1.0 | 16 | 0.6 | 14 | 0.5 | 3 | 0.1 | 2752 | 100 |
| England | 2222 | 98.1 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | 0.2 | 16 | 0.7 | 6 | 0.3 | _ | _ | 1 | 0.0 | 2265 | 100 |
| Macquarie | 1458 | 98.1 | _ | _ | _ | _ | _ | _ | _ | _ | _ | _ | 7 | 0.5 | _ | _ | _ | _ | 7 | 0.5 | 1 | 0.1 | 1486 | 100 |
| Mid Western | | 97.6 | _ | _ | _ | _ | _ | _ | 6 | _ | 5 | 0.2 | 7 | 0.3 | 7 | 0.3 | 6 | 0.3 | 5 | 0.2 | 1 | 0.0 | 2098 | 100 |
| Far West Greater | | 97.6 | | 0.0 | - | - | - | - | - | - | 0 | 0.0 | 0 | 0.0 | - | - | - | - | - | - | 1 | 0.2 | 497 | |
| Murray | 2367 | 95.3 | _ | _ | 32 | 1.3 | _ | _ | 9 | 0.4 | _ | _ | 16 | 0.6 | 18 | 0.7 | 8 | 0.3 | 20 | 0.8 | 6 | 0.2 | 2484 | 100 |
| Southern Other/ | 1440 | 97.0 | | - | 8 | 0.5 | 7 | 0.5 | 6 | 0.4 | - | - | 7 | 0.5 | 5 | 0.3 | 5 | 0.3 | - | - | 2 | 0.1 | 1485 | |
| Not stated | 559 67268 | 93.5 79.5 | | 0.5 | 5 1534 | 0.8 | 1001 | 0.2 1.2 | 1 | 0.2 | 1 458 | 0.2 | 7 3653 | 1.2 | 15 4557 | 2.5 | 4 2962 | 0.7 | 1 1716 | 0.2 | 1 | 0.2 | 598 84587 | |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health. # Data not shown for country of birth groups with less than five in a group where country of birth was reported.

Booking status

In 2002, 97.4 per cent of all mothers were booked at the hospital of birth. The lowest rate (94.0 per cent) was in mothers born in Melanesia, Micronesia and Polynesia. This compared with 97.2 per cent of mothers born in English speaking countries and over 98 per cent of mothers in other country of birth groups.

Duration of pregnancy at first antenatal visit

In 2002, 86.4 per cent of all mothers commenced antenatal care before 20 weeks gestation. There was some variation between country of birth groups, with 88.5 per cent of mothers born in English speaking countries commencing antenatal care before 20 weeks gestation, compared with 58.1 per cent of mothers born in Melanesia, Micronesia, and Polynesia, and 70.0 per cent of mothers born in the Middle East and Africa (Table 57).

TABLE 57

CONFINEMENTS BY COUNTRY OF BIRTH AND DURATION OF PREGNANCY AT FIRST ANTENATAL VISIT, NSW 2002

| Country of birth group | | | Duration | of pregnancy a | t first antenatal | visit (weeks) | | |
|-----------------------------------|-------|-------------|----------|----------------|-------------------|---------------|-------|-------|
| | 0 | – 19 | 2 | 0+ | Not s | tated | T | OTAL |
| | No. | % | No. | % | No. | % | No. | % |
| English speaking | 59499 | 88.5 | 7050 | 10.5 | 719 | 1.1 | 67268 | 100.0 |
| Central & South America | 625 | 84.6 | 112 | 15.2 | 2 | 0.3 | 739 | 100.0 |
| Melanesia, Micronesia & Polynesia | 892 | 58.1 | 602 | 39.2 | 40 | 2.6 | 1534 | 100.0 |
| Southern Europe | 890 | 88.9 | 106 | 10.6 | 5 | 0.5 | 1001 | 100.0 |
| Western & Northern Europe | 545 | 88.8 | 67 | 10.9 | 2 | 0.3 | 614 | 100.0 |
| Eastern Europe, Russia, | | | | | | | | |
| Central Asian & Baltic States | 381 | 83.2 | 74 | 16.2 | 3 | 0.7 | 458 | 100.0 |
| Middle East & Africa | 2557 | 70.0 | 1078 | 29.5 | 18 | 0.5 | 3653 | 100.0 |
| South East Asia | 3774 | 82.8 | 745 | 16.3 | 38 | 0.8 | 4557 | 100.0 |
| North East Asia | 2443 | 82.5 | 507 | 17.1 | 12 | 0.4 | 2962 | 100.0 |
| Southern Asia | 1444 | 84.1 | 261 | 15.2 | 11 | 0.6 | 1716 | 100.0 |
| Other/Not stated | 66 | 77.6 | 12 | 14.1 | 7 | 8.2 | 85 | 100.0 |
| TOTAL | 73116 | 86.4 | 10614 | 12.5 | 857 | 1.0 | 84587 | 100.0 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Smoking in pregnancy

In 2002, smoking at any time during pregnancy was far more common among mothers born in English speaking countries than mothers born in non-English speaking countries (Table 58). About one in five mothers born in English speaking countries smoked at some time during pregnancy, compared to less than one in 8 mothers born in other country of birth groups.

Smoking in the second half of pregnancy poses the greatest risk to the health of both mother and baby. Four per cent of mothers who smoked during pregnancy quit before the second half of pregnancy. Of mothers who did smoke in the second half of pregnancy, mothers born in English speaking countries were more likely to smoke more than 10 cigarettes per day compared to mothers born in other country of birth groups (Table 59).

TABLE 58

CONFINEMENTS BY COUNTRY OF BIRTH GROUP AND SMOKING IN PREGNANCY, NSW 2002

| Country of birth group | | | : | Smoking in pre | gnancy | | | |
|-----------------------------------|-------|------|-------|----------------|--------|-------|-------|-------|
| | | No | • | /es | Not s | tated | TO | OTAL |
| | No. | % | No. | % | No. | % | No. | % |
| English speaking | 54199 | 80.6 | 13059 | 19.4 | 10 | 0.0 | 67268 | 100.0 |
| Central & South America | 713 | 96.5 | 26 | 3.5 | 0 | 0.0 | 739 | 100.0 |
| Melanesia, Micronesia & Polynesia | 1390 | 90.6 | 143 | 9.3 | 1 | 0.1 | 1534 | 100.0 |
| Southern Europe | 886 | 88.5 | 115 | 11.5 | 0 | 0.0 | 1001 | 100.0 |
| Western & Northern Europe | 571 | 93.0 | 43 | 7.0 | 0 | 0.0 | 614 | 100.0 |
| Eastern Europe, Russia, | | | | | | | | |
| Central Asian & Baltic States | 423 | 92.4 | 35 | 7.6 | 0 | 0.0 | 458 | 100.0 |
| Middle East & Africa | 3409 | 93.3 | 243 | 6.7 | 1 | 0.0 | 3653 | 100.0 |
| South East Asia | 4444 | 97.5 | 112 | 2.5 | 1 | 0.0 | 4557 | 100.0 |
| North East Asia | 2936 | 99.1 | 26 | 0.9 | 0 | 0.0 | 2962 | 100.0 |
| Southern Asia | 1702 | 99.2 | 14 | 0.8 | 0 | 0.0 | 1716 | 100.0 |
| Other/Not stated | 72 | 84.7 | 13 | 15.3 | 0 | 0.0 | 85 | 100.0 |
| TOTAL | 70745 | 83.6 | 13829 | 16.3 | 13 | 0.0 | 84587 | 100.0 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

TABLE 59

MOTHERS WHO SMOKED AT ALL DURING PREGNANCY BY NUMBER OF CIGARETTES SMOKED IN THE SECOND HALF OF PREGNANCY AND COUNTRY OF BIRTH GROUP, NSW 2002

| • • • | N. | | Man | 41 | 4 47 | \ · | A | | - | OTAL |
|-----------------------------------|-----|------|------|---------|------|-------|-----|---------|-------|-------|
| | N | one | | re than | |) per | | unt not | | OTAL |
| | | | ten | per day | da | ay | st | ated | | |
| | No. | % | No. | % | No. | % | No. | % | No. | % |
| English speaking | 521 | 4.0 | 6111 | 46.8 | 6155 | 47.1 | 272 | 2.1 | 13059 | 100.0 |
| Central & South America | 1 | 3.8 | 9 | 34.6 | 16 | 61.5 | 0 | 0.0 | 26 | 100.0 |
| Melanesia, Micronesia & Polynesia | 4 | 2.8 | 41 | 28.7 | 97 | 67.8 | 1 | 0.7 | 143 | 100.0 |
| Southern Europe | 4 | 3.5 | 40 | 34.8 | 68 | 59.1 | 3 | 2.6 | 115 | 100.0 |
| Western & Northern Europe | 2 | 4.7 | 17 | 39.5 | 22 | 51.2 | 2 | 4.7 | 43 | 100.0 |
| Eastern Europe, Russia, Central | | | | | | | | | | |
| Asian & Baltic States | 3 | 8.6 | 9 | 25.7 | 22 | 62.9 | 1 | 2.9 | 35 | 100.0 |
| Middle East & Africa | 3 | 1.2 | 88 | 36.2 | 148 | 60.9 | 4 | 1.6 | 243 | 100.0 |
| South East Asia | 9 | 8.0 | 24 | 21.4 | 76 | 67.9 | 3 | 2.7 | 112 | 100.0 |
| North East Asia | 4 | 15.4 | 3 | 11.5 | 19 | 73.1 | 0 | 0.0 | 26 | 100.0 |
| Southern Asia | 4 | 28.6 | 1 | 7.1 | 8 | 57.1 | 1 | 7.1 | 14 | 100.0 |
| Other/Not stated | 1 | 7.7 | 4 | 30.8 | 8 | 61.5 | 0 | 0.0 | 13 | 100.0 |
| TOTAL | 556 | 4.0 | 6347 | 45.9 | 6639 | 48.0 | 287 | 2.1 | 13829 | 100.0 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Medical conditions and obstetric complications

In 2002, 1.5 per cent of mothers born in Melanesia, Micronesia, and Polynesia were reported to have diabetes mellitus, about three times the rate for all mothers in NSW, though the number of mothers is small (Table 60). The rates of gestational diabetes in mothers born in Asian countries and Melanesia, Micronesia, and Polynesia were over nine per cent, and were more than twice the rate for all mothers in NSW.

Overall, 1.1 per cent of mothers were reported to have essential hypertension, and 5.7 per cent were reported to have pre-eclampsia. Rates of reported pre-eclampsia were lower among mothers born in Asian countries than other country of birth groups.

| | nglish eaking | So | ntral & uth erica | Micro 8 | | | | Wes | tern | Fas | stern | Mic | ddle | 0 | -41- | NI. | 41. | C | Sla a wa | Oth | or/ | то | TΛ |
|--------------------|------------------|-----|----------------------------|------------|-------|-----|-----|-------------|------|--------------------------------|--|-----|------------------|-----|-----------|-----|--------------------|-----|--------------|------------|-----|------|----|
| | | | | FOIYI | nesia | | орс | Nort Eur | | Eur Rus Cer Asi Ba | rope ssia, ntral ian & altic ates | E | ast & rica | Ea | uth st | E | orth ast sia | | thern sia | No stat | ot | | 10 |
| No | o. % | No. | % | No. | % | No. | . % | No. | % | No. | . % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | |
| Diabetes | | | | | | | | | | | | | | | | | | | | | | | |
| mellitus 336 | 6 0.5 | 1 | 0.1 | 23 | 1.5 | 5 | 0.5 | 5 | 8.0 | 0 | 0.0 | 25 | 0.7 | 29 | 0.6 | 17 | 0.6 | 21 | 1.2 | 0 | 0.0 | 462 | C |
| Gestational | | | | | | | | | | | | | | | | | | | | | | | |
| diabetes 2088 | 8 3.1 | 47 | 6.4 | 149 | 9.7 | 74 | 7.4 | 12 | 2.0 | 22 | 4.8 | 279 | 7.6 | 447 | 9.8 | 372 | 12.6 | 202 | 11.8 | 1 | 1.2 | 3693 | 4 |
| Essential | | | | | | | | | | | | | | | | | | | | | | | |
| hypertension 804 | | | 0.5 | | 1.6 | 8 | 0.8 | | 8.0 | 5 | 1.1 | 27 | 0.7 | 25 | 0.5 | 21 | 0.7 | 14 | 0.8 | | 2.4 | 940 | |
| Pre-eclampsia 4087 | 7 6.1 | 47 | 6.4 | 101 | 6.6 | 50 | 5.0 | 32 | 5.2 | 30 | 6.6 | 149 | 4.1 | 172 | 3.8 | 97 | 3.3 | 68 | 4.0 | 6 | 7.1 | 4839 | |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health. # Total refers to total confinements in NSW.

Labour and delivery

Mothers born in non-English speaking countries were more likely to have a spontaneous onset of labour than mothers born in English speaking countries and less likely to be induced (Table 61).

Mothers born in the Middle East and Africa and Melanesia, Micronesia and Polynesia were more likely to have a normal vaginal delivery than mothers in other country of birth groups (Table 62). The highest caesarean section rates were among mothers born in Central and South America (31.4 per cent) and Southern Asia (27.9 per cent).

TABLE 61

LABOUR ONSET BY COUNTRY OF BIRTH GROUP, NSW 2002

| Country of birth group | Spor | ıtaneous | No | o labour# | | of labour uced | Not s | tated | ī | OTAL |
|-----------------------------------|-------|----------|-------|-----------|-------|-------------------|-------|-------|-------|-------|
| <u> </u> | No. | % | No. | % | No. | % | No. | % | No. | % |
| English speaking | 39761 | 59.1 | 9575 | 14.2 1 | 7921 | 26.6 | 11 | 0.0 | 67268 | 100.0 |
| Central & South America | 463 | 62.7 | 127 | 17.2 | 149 | 20.2 | 0 | 0.0 | 739 | 100.0 |
| Melanesia, Micronesia & Polynesia | 1040 | 67.8 | 190 | 12.4 | 304 | 19.8 | 0 | 0.0 | 1534 | 100.0 |
| Southern Europe | 640 | 63.9 | 137 | 13.7 | 224 | 22.4 | 0 | 0.0 | 1001 | 100.0 |
| Western & Northern Europe | 408 | 66.4 | 72 | 11.7 | 134 | 21.8 | 0 | 0.0 | 614 | 100.0 |
| Eastern Europe, Russia, Central | | | | | | | | | | |
| Asian & Baltic States | 305 | 66.6 | 45 | 9.8 | 108 | 23.6 | 0 | 0.0 | 458 | 100.0 |
| Middle East & Africa | 2503 | 68.5 | 390 | 10.7 | 760 | 20.8 | 0 | 0.0 | 3653 | 100.0 |
| South East Asia | 3389 | 74.4 | 480 | 10.5 | 687 | 15.1 | 1 | 0.0 | 4557 | 100.0 |
| North East Asia | 1991 | 67.2 | 439 | 14.8 | 532 | 18.0 | 0 | 0.0 | 2962 | 100.0 |
| Southern Asia | 1127 | 65.7 | 250 | 14.6 | 339 | 19.8 | 0 | 0.0 | 1716 | 100.0 |
| Other/Not stated | 54 | 63.5 | 15 | 17.6 | 16 | 18.8 | 0 | 0.0 | 85 | 100.0 |
| TOTAL | 51681 | 61.1 | 11720 | 13.9 | 21174 | 25.0 | 12 | 0.0 | 84587 | 100.0 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

No labour indicates elective caesarean section.

TABLE 62

TYPE OF DELIVERY BY COUNTRY OF BIRTH GROUP, NSW 2002

| Country of | | | | | | | | Type o | f delivery | / | | | | | | |
|-------------------------------------|-------|---------------|----------|------------|-----------|---------------|------------|--------|------------|-------------------------|------|-------------------------|-----------|-----|-------|-------|
| birth group | | rmal ginal | Ford | ceps | | uum action | Vag bre | | caes | ctive arean ction | caes | gency arean tion# | No sta | | ТО | TAL |
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| English speaking Central & South | 42879 | 63.7 | 2391 | 3.6 | 4626 | 6.9 | 265 | 0.4 | 9575 | 14.2 | 7515 | 11.2 | 17 | 0.0 | 67268 | 100.0 |
| America | 432 | 58.5 | 13 | 1.8 | 60 | 8.1 | 2 | 0.3 | 127 | 17.2 | 105 | 14.2 | 0 | 0.0 | 739 | 100.0 |
| Melanesia, Micronesia | ۱& | | | | | | | | | | | | | | | |
| Polynesia | 1106 | 72.1 | 26 | 1.7 | 66 | 4.3 | 5 | 0.3 | 190 | 12.4 | 141 | 9.2 | 0 | 0.0 | 1534 | 100. |
| Southern Europe | 668 | 66.7 | 29 | 2.9 | 72 | 7.2 | 4 | 0.4 | 137 | 13.7 | 90 | 9.0 | 1 | 0.1 | 1001 | 100. |
| Western & Northern | | | | | | | | | | | | | | | | |
| Europe | 379 | 61.7 | 24 | 3.9 | 65 | 10.6 | 3 | 0.5 | 72 | 11.7 | 71 | 11.6 | 0 | 0.0 | 614 | 100. |
| Eastern Europe, Russ | | | | | | | | | | | | | | | | |
| Central Asian & Baltic States | 303 | 66.2 | 26 | 5.7 | 33 | 7.2 | 4 | 0.9 | 45 | 9.8 | 47 | 10.3 | 0 | 0.0 | 458 | 100. |
| Middle East & Africa | 2691 | 73.7 | 26 99 | 2.7 | 33 176 | 4.8 | 18 | 0.9 | 390 | 9.6 | 279 | 7.6 | 0 | 0.0 | 3653 | 100. |
| South East Asia | 3009 | 66.0 | 166 | 3.6 | 375 | 4.0 8.2 | 16 26 | 0.5 | 480 | 10.7 | 500 | 11.0 | 1 | 0.0 | 4557 | 100. |
| North East Asia | 1756 | 59.3 | 150 | 5.0 5.1 | 254 | 8.6 | 15 | 0.5 | 439 | 14.8 | 348 | 11.7 | 0 | 0.0 | 2962 | 100. |
| Southern Asia | 998 | 58.2 | 107 | 6.2 | 122 | 7.1 | 11 | 0.5 | 250 | 14.6 | 228 | 13.3 | 0 | 0.0 | 1716 | 100. |
| Other/Not stated | 50 | 58.8 | 3 | 3.5 | 6 | 7.1 | 0 | 0.0 | 15 | 17.6 | 11 | 12.9 | 0 | 0.0 | 85 | 100. |
| TOTAL | 54271 | 64.2 | 3034 | 3.6 | 5855 | 6.9 | 353 | 0.0 | 11720 | 13.9 | 9335 | 11.0 | 19 | 0.0 | 84587 | 100 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Emergency caesarean section includes caesarean sections where the onset of labour was not stated.

Birthweight

The rate of low birthweight (less than 2,500 grams) in 2002 was 6.4 per cent in NSW. The highest rates of low birthweight were in babies of mothers born in Southern Asian countries (7.3 per cent) (Table 63). Babies of mothers born in Western and Northern Europe were least likely to be low birthweight.

| IABLE 63 | | |
|----------|--|--|
| | | |

| Country of | | | | Birthwe | ight (grams) | | | |
|-----------------------------------|---------|----------|-------|---------|--------------|--------|-------|-------|
| birth group | Less th | an 2,500 | 2, | 500+ | • .• . | stated | TO | OTAL |
| | No. | % | No. | % | No. | % | No. | % |
| English speaking | 4436 | 6.5 | 63969 | 93.5 | 44 | 0.1 | 68449 | 100.0 |
| Central & South America | 48 | 6.4 | 706 | 93.5 | 1 | 0.1 | 755 | 100.0 |
| Melanesia, Micronesia & Polynesia | 125 | 8.0 | 1428 | 91.8 | 2 | 0.1 | 1555 | 100.0 |
| Southern Europe | 62 | 6.1 | 960 | 93.9 | 0 | 0.0 | 1022 | 100.0 |
| Western & Northern Europe | 30 | 4.8 | 597 | 95.2 | 0 | 0.0 | 627 | 100.0 |
| Eastern Europe, Russia, Central | | | | | | | | |
| Asian & Baltic States | 26 | 5.6 | 441 | 94.2 | 1 | 0.2 | 468 | 100.0 |
| Middle East & Africa | 206 | 5.6 | 3504 | 94.4 | 1 | 0.0 | 3711 | 100.0 |
| South East Asia | 286 | 6.2 | 4308 | 93.8 | 1 | 0.0 | 4595 | 100.0 |
| North East Asia | 154 | 5.1 | 2846 | 94.9 | 0 | 0.0 | 3000 | 100.0 |
| Southern Asia | 127 | 7.3 | 1611 | 92.7 | 0 | 0.0 | 1738 | 100.0 |
| Other/Not stated | 7 | 8.2 | 78 | 91.8 | 0 | 0.0 | 85 | 100.0 |
| TOTAL | 5507 | 6.4 | 80448 | 93.5 | 50 | 0.1 | 86005 | 100.0 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Gestational age

The rate of prematurity (less than 37 weeks gestation) in 2002 was 7.1 per cent in NSW. The highest rates of prematurity were in babies of mothers born in Melanesia, Micronesia and Polynesia (8.4 per cent). Babies of mothers born in North East and Southern Asia were least likely to be premature (Table 64).

TABLE 64

GESTATIONAL AGE BY MATERNAL COUNTRY OF BIRTH GROUP, NSW 2002

| Country of | Gestational age (weeks) | | | | | | | | | | |
|-----------------------------------|-------------------------|------|-------|------|-------|-------|-------|-------|--|--|--|
| birth group | Less than 37 | | 3 | 37+ | Not s | tated | TOTAL | | | | |
| | No. | % | No. | % | No. | % | No. | % | | | |
| English speaking | 4992 | 7.3 | 63435 | 92.7 | 22 | 0.0 | 68449 | 100.0 | | | |
| Central & South America | 44 | 5.8 | 711 | 94.2 | 0 | 0.0 | 755 | 100.0 | | | |
| Melanesia, Micronesia & Polynesia | 130 | 8.4 | 1425 | 91.6 | 0 | 0.0 | 1555 | 100.0 | | | |
| Southern Europe | 68 | 6.7 | 954 | 93.3 | 0 | 0.0 | 1022 | 100.0 | | | |
| Western & Northern Europe | 41 | 6.5 | 586 | 93.5 | 0 | 0.0 | 627 | 100.0 | | | |
| Eastern Europe, Russia, Central | | | | | | | | | | | |
| Asian & Baltic States | 33 | 7.1 | 435 | 92.9 | 0 | 0.0 | 468 | 100.0 | | | |
| Middle East & Africa | 209 | 5.6 | 3502 | 94.4 | 0 | 0.0 | 3711 | 100.0 | | | |
| South East Asia | 298 | 6.5 | 4297 | 93.5 | 0 | 0.0 | 4595 | 100.0 | | | |
| North East Asia | 149 | 5.0 | 2851 | 95.0 | 0 | 0.0 | 3000 | 100.0 | | | |
| Southern Asia | 97 | 5.6 | 1641 | 94.4 | 0 | 0.0 | 1738 | 100.0 | | | |
| Other/Not stated | 10 | 11.8 | 75 | 88.2 | 0 | 0.0 | 85 | 100.0 | | | |
| TOTAL | 6071 | 7.1 | 79912 | 92.9 | 22 | 0.0 | 86005 | 100.0 | | | |

 $Source: \ \ \textit{NSW Midwives Data Collection (HOIST)}. \ \ \textit{Centre for Epidemiology and Research, NSW Department of Health}.$

Apgar score

In 2002, 2.1 per cent of all babies (including stillborn babies) had an Apgar score of 7 or less at five minutes and 1.0 per cent had a score of less than 4 (Table 65). The rate of Apgar scores of less than 7 was highest among babies of mothers born in Melanesia, Micronesia and Polynesia (2.8 per cent).

TABLE 65

BIRTHS BY COUNTRY OF BIRTH GROUP AND APGAR SCORE AT FIVE MINUTES, NSW 2002#

| Country of | | | | Apgar scor | е | | | | | | |
|-----------------------------------|-----|-----|-----|------------|-------|------|-----|------------|-------|-------|--|
| birth group | 0–4 | | : | 5–6 | | 7+ | | Not stated | | TOTAL | |
| | No. | % | No. | % | No. | % | No. | % | No. | % | |
| English speaking | 711 | 1.0 | 724 | 1.1 | 66870 | 97.7 | 144 | 0.2 | 68449 | 100.0 | |
| Central & South America | 7 | 0.9 | 5 | 0.7 | 742 | 98.3 | 1 | 0.1 | 755 | 100.0 | |
| Melanesia, Micronesia & Polynesia | 23 | 1.5 | 20 | 1.3 | 1503 | 96.7 | 9 | 0.6 | 1555 | 100.0 | |
| Southern Europe | 11 | 1.1 | 10 | 1.0 | 999 | 97.7 | 2 | 0.2 | 1022 | 100.0 | |
| Western & Northern Europe | 1 | 0.2 | 2 | 0.3 | 622 | 99.2 | 2 | 0.3 | 627 | 100.0 | |
| Eastern Europe, Russia, Central | | | | | | | | | | | |
| Asian & Baltic States | 8 | 1.7 | 4 | 0.9 | 456 | 97.4 | 0 | 0.0 | 468 | 100.0 | |
| Middle East & Africa | 53 | 1.4 | 29 | 0.8 | 3622 | 97.6 | 7 | 0.2 | 3711 | 100.0 | |
| South East Asia | 49 | 1.1 | 56 | 1.2 | 4483 | 97.6 | 7 | 0.2 | 4595 | 100.0 | |
| North East Asia | 26 | 0.9 | 27 | 0.9 | 2944 | 98.1 | 3 | 0.1 | 3000 | 100.0 | |
| Southern Asia | 12 | 0.7 | 13 | 0.7 | 1712 | 98.5 | 1 | 0.1 | 1738 | 100.0 | |
| Other/Not stated | 1 | 1.2 | 3 | 3.5 | 80 | 94.1 | 1 | 1.2 | 85 | 100.0 | |
| TOTAL | 902 | 1.0 | 893 | 1.0 | 84033 | 97.7 | 177 | 0.2 | 86005 | 100.0 | |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, NSW Department of Health.

Perinatal outcomes

In 2002, 99 per cent of babies born in NSW and reported to the MDC were born alive and survived until discharge from the hospital of birth (Table 66). The majority of periantal deaths occurred among babies of mothers born in English speaking countries (*n*=597, 79.8 per cent).

There were a further 45 deaths among babies of mothers born in the Middle East and Africa, and 35 deaths among babies of mothers born in South East Asia—comprising 6.0 and 4.7 per cent respectively of all perinatal deaths reported to the MDC.

TABLE 66

PERINATAL OUTCOMES BY COUNTRY OF BIRTH GROUP, NSW 2002#

| Country of birth group | Liveborn surviving | | Stillborn | | Perinatal outcome Neonatal death | | Not stated | | Total births | | Perinatal mortality rate/1,000 births |
|-----------------------------|-----------------------|-------|-----------|-----|--|-----|------------|-----|-----------------|-------|--|
| | No. | % | No. | % | No. | % | No. | % | No. | % | |
| English speaking | 67820 | 99.1 | 410 | 0.6 | 187 | 0.3 | 32 | 0.0 | 68449 | 100.0 | 8.7 |
| Central & South America | 747 | 98.9 | 5 | 0.7 | 3 | 0.4 | 0 | 0.0 | 755 | 100.0 | 10.6 |
| Melanesia, Micronesia & | | | | | | | | | | | |
| Polynesia | 1540 | 99.0 | 13 | 0.8 | 2 | 0.1 | 0 | 0.0 | 1555 | 100.0 | 9.6 |
| Southern Europe | 1012 | 99.0 | 6 | 0.6 | 4 | 0.4 | 0 | 0.0 | 1022 | 100.0 | 9.8 |
| Western & Northern Europe## | 625 | 99.7 | 1 | 0.2 | 1 | 0.2 | 0 | 0.0 | 627 | 100.0 | _ |
| Eastern Europe, Russia, | | | | | | | | | | | |
| Central Asian & Baltic | | | | | | | | | | | |
| States | 461 | 98.5 | 3 | 0.6 | 4 | 0.9 | 0 | 0.0 | 468 | 100.0 | 15.0 |
| Middle East & Africa | 3665 | 98.8 | 29 | 8.0 | 16 | 0.4 | 1 | 0.0 | 3711 | 100.0 | 12.1 |
| South East Asia | 4559 | 99.2 | 24 | 0.5 | 11 | 0.2 | 1 | 0.0 | 4595 | 100.0 | 7.6 |
| North East Asia | 2979 | 99.3 | 15 | 0.5 | 5 | 0.2 | 1 | 0.0 | 3000 | 100.0 | 6.7 |
| Southern Asia | 1729 | 99.5 | 9 | 0.5 | 0 | 0.0 | 0 | 0.0 | 1738 | 100.0 | 5.2 |
| Other/Not stated | 85 | 100.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 85 | 100.0 | _ |
| TOTAL | 85222 | 99.1 | 515 | 0.6 | 233 | 0.3 | 35 | 0.0 | 86005 | 100.0 | 8.7 |

Source: NSW Midwives Data Collection (HOIST). Centre for Epidemiology and Research, Department of Health.

[#] Perinatal deaths include deaths reported to the MDC only. As the MDC form is completed at discharge or transfer of the baby, deaths occurring after this time may not be reported to the MDC.

^{##} Perinatal mortality rate not calculated for country of birth groups with less than five perinatal deaths.