**Supplementary Material**

Table 1.

Rates of TIA and stroke (combined ischaemic and haemorrhagic) per 100,000 person-years and median, mean and standard deviation (SD) age distribution by geographic region of birth in (a) South Western Sydney (SWS) and (b) New South Wales (NSW).

1. Rates of TIA and stroke in South Western Sydney

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | |  |  |  |
|  | **Rate per 100,000 population/years (age-standardised)** | **Gender** | **Age (years)** | | |
| **Geographic Region** | **% Male** | **Median** | **Mean** | **± StDev (Range)** |
|  |
| Southern Europe | 78 | 55 | 78 | 76.3 | ± 10.3 (31-101) |  |
| Eastern Europe | 124 | 45.6 | 81 | 79.2 | ± 11.8 (28-101) |  |
| Western Europe | 97 | 50.7 | 78 | 76.9 | ± 10.4 (42-97) |  |
| Northern Europe | 113 | 44.9 | 80.5 | 78.7 | ± 12.4 (33-99) |  |
| United Kingdom | 96 | 55.4 | 77 | 75.1 | ± 11.8 (28-99) |  |
| Polynesia | 252 | 54.8 | 64 | 63.8 | ± 13.6 (17-91) |  |
| Melanesia | 137 | 52.5 | 65 | 64.8 | ± 13.9 (24-96) |  |
| Central America | 144 | 35.1 | 67 | 67.5 | ± 12.8 (46-93) |  |
| South America | 86 | 51 | 71 | 70.6 | ± 11.9 (29-99) |  |
| Northern America | 79 | 75 | 64.5 | 64.4 | ± 14.4 (32-92) |  |
| Southern Africa | 90 | 41.2 | 68 | 69.1 | ± 14.1 (34-101) |  |
| Eastern Africa | 83 | 56.4 | 71.5 | 72.1 | ± 13.8 (34-100) |  |
| Northern Africa | 68 | 53.4 | 73 | 72.8 | ± 12.1 (31-95) |  |
| Western Africa | 181 | 65.2 | 61 | 61.1 | ± 15.5 (34-86) |  |
| Western Asia | 96 | 56.7 | 71 | 69.3 | ± 13.6 (19-96) |  |
| South-eastern Asia | 74 | 51.8 | 69 | 69 | ± 14.4 (22-104) |  |
| Eastern Asia | 45 | 52.4 | 77 | 73.7 | ± 14.4 (20-101) |  |
| Southern Asia | 90 | 57.8 | 67 | 66.4 | ± 15.4 (18-98) |  |
| New Zealand | 120 | 53.8 | 62 | 60.5 | ± 14.6 (21-98) |  |
| Australia | 100 | 51.5 | 74 | 71 | ± 15.7 (0-100) |  |
| **Total** | **92** | **52.7** | **74** | **71.5** | **± 14.5 (0-104)** |  |

1. Rates of TIA and stroke in New South Wales

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | |  |  |  |
|  | **Rate per 100,000 population/years (age-standardised)** | **Gender** | **Age (years)** | | |
| **Geographic Region** | **% Male** | **Median** | **Mean** | **± StDev (Range)** |
|  |
| Southern Europe | 87 | 56.7 | 79 | 77.4 | ± 10 (20-103) |  |
| Eastern Europe | 99 | 48.5 | 82 | 80 | ± 11.9 (23-101) |  |
| Western Europe | 87 | 53.1 | 78 | 77.1 | ± 10.7 (13-102) |  |
| Northern Europe | 109 | 54.8 | 77 | 76.1 | ± 12.8 (12-109) |  |
| United Kingdom | 80 | 54.7 | 78 | 76 | ± 11.9 (13-106) |  |
| Polynesia | 246 | 56.1 | 64 | 63.8 | ± 13.1 (17-94) |  |
| Melanesia | 163 | 50.1 | 67 | 65.9 | ± 14.5 (0-97) |  |
| Central America | 136 | 45.8 | 68 | 68.2 | ± 14.5 (35-97) |  |
| South America | 84 | 52.2 | 72 | 70.5 | ± 13.4 (23-106) |  |
| Northern America | 90 | 59.6 | 71 | 69.8 | ± 14.6 (7-97) |  |
| Southern Africa | 69 | 53.1 | 71 | 69.5 | ± 15.6 (4-97) |  |
| Eastern Africa | 81 | 56.5 | 71 | 70.7 | ± 14.2 (26-100) |  |
| Northern Africa | 83 | 55.8 | 76 | 74.5 | ± 12.3 (21-98) |  |
| Western Africa | 153 | 58.8 | 59 | 60.5 | ± 13.3 (34-86) |  |
| Western Asia | 112 | 56.7 | 72 | 70.6 | ± 13.5 (16-100) |  |
| South-eastern Asia | 78 | 48.9 | 68 | 67.6 | ± 14.7 (2-109) |  |
| Eastern Asia | 65 | 56.7 | 74 | 72 | ± 14.1 (13-103) |  |
| Southern Asia | 87 | 58.6 | 70 | 68 | ± 16.1 (4-104) |  |
| New Zealand | 104 | 53.9 | 67 | 66.4 | ± 14.6 (5-103) |  |
| Australia | 100 | 52 | 76 | 73.4 | ± 15.1 (0-107) |  |
| **Total** | **86** | **52.9** | **76** | **73.4** | ± 14.6 (0-109) |  |

Table 2.

Odds ratios and p values for neurovascular events and stroke risk factors of persons born in Polynesia when compared to those born in Australia.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Rates of TIA and stroke in New South Wales | | | |  |  |  |  |
|  |  | **SWS** | | | **NSW** | | |
|  |  | **Odds ratio** | **95% confidence interval** | **p-value** | **Odds ratio** | **95% confidence interval** | **p-value** |
|  |
| Events | ICH | 7.143 | 5.391-9.478 | <0.001 | 3.442 | 2.926-4.048 | <0.001 |
| IS | 2.953 | 2.463-3.540 | <0.001 | 2.404 | 2.170-2.663 | <0.001 |
| TIA | 2.259 | 1.764-2.894 | <0.001 | 1.361 | 1.150-1.611 | 0.001 |
| Overall | 3.096 | 2.717-3.528 | <0.001 | 2.205 | 2.040-2.383 | <0.001 |
| Stroke Risk Factors | Hypertension | 3.583 | 2.910-4.411 | <0.001 | 2.738 | 2.420-3.098 | <0.001 |
| DM | 7.673 | 6.584-8.943 | <0.001 | 7.281 | 6.694-7.920 | <0.001 |
| AF | 3.495 | 2.523-4.840 | <0.001 | 2.351 | 1.914-2.888 | <0.001 |
| Smoking | 3.322 | 2.419-4.562 | <0.001 | 2.977 | 2.445-3.623 | <0.001 |
| Obesity | 10.663 | 7.278-15.622 | <0.001 | 9.322 | 7.457-11.655 | <0.001 |

AF = atrial fibrillation; DM = diabetes mellitus; ICH = intracerebral haemorrhage; IS = ischaemic stroke; TIA = transient ischaemic attack

Table 3. Total number of presentations with TIA and stroke (combined ischaemic and haemorrhagic) in New South Wales (NSW) and South Western Sydney (SWS). Percentage arrival to hospital by ambulance, percentage requiring interpreter services and in-hospital mortality rates for patients presenting to a hospital in SWS.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Total** | | **% of ambulance arrivals** | **% requiring interpreter** | **In-Hospital Mortality per 100,000 population/years (age-standardised)** |
| **Geographic Region** |
|  | **NSW Records** | **SWS Records** |
| Southern Europe | 7910 | 1779 | 73.50% | 35.30% | 4 |
| Eastern Europe | 1912 | 333 | 78.10% | 23.90% | 5 |
| Western Europe | 2644 | 284 | 75.70% | 1.70% | 8 |
| Northern Europe | 1114 | 138 | 75.40% | 4.90% | 11 |
| United Kingdom | 8001 | 792 | 69.60% | 0.00% | 5 |
| Polynesia | 663 | 241 | 59.80% | 20.80% | 18 |
| Melanesia | 886 | 295 | 58.00% | 15.20% | 11 |
| Central America | 72 | 37 | 59.50% | 65.80% | 3 |
| South America | 850 | 300 | 53.70% | 37.50% | 4 |
| Northern America | 495 | 24 | 50.00% | 0.00% | 5 |
| Southern Africa | 507 | 51 | 47.10% | 0.00% | 5 |
| Eastern Africa | 306 | 78 | 71.80% | 7.20% | 5 |
| Northern Africa | 703 | 133 | 72.20% | 25.40% | 2 |
| Western Africa | 51 | 23 | 65.20% | 12.00% | 44 |
| Western Asia | 3217 | 1275 | 64.20% | 52.90% | 6 |
| South-eastern Asia | 3312 | 1271 | 65.70% | 61.00% | 6 |
| Eastern Asia | 3370 | 378 | 73.80% | 71.60% | 3 |
| Southern Asia | 2084 | 306 | 53.30% | 24.80% | 4 |
| New Zealand | 1919 | 199 | 58.80% | 0.50% | 10 |
| Australia | 81795 | 6142 | 70.30% | 0.20% | 6 |
| **Total** | **121811** | **14079** | **68.70%** | **19.80%** | **6** |

**Appendix 1. Geographic regions and countries in accordance with United Nations classification.11**

|  |  |
| --- | --- |
| **Country Region** | **Countries and overseas territories** |
| Southern Europe (SEuro) | Albania, Andorra, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Gibraltar, Greece, Holy See, Italy, Kosovo, Malta, Montenegro, Portugal, San Marino, Serbia, Slovenia, Spain |
| Eastern  Europe (EEuro) | Belarus, Bulgaria, Czech Republic, Hungary, Hungary, Moldova, Poland, Romania, Russian Federation, Slovenia, Ukraine |
| Western  Europe (WEuro) | Austria, Belgium, France, Germany, Liechtenstein. Luxembourg, Monaco, Netherlands, Switzerland |
| Northern Europe (NEuro) | Aland Islands, Denmark, Estonia, Finland, Guernsey, Iceland, Ireland, Isle of Man, Jersey, Latvia, Lithuania, Norway, Sweden |
| United Kingdom  (UK) | England, Northern Ireland, Scotland, Wales |
| Polynesia (Poly) | Cook Islands, French Polynesia, Niue, Pitcairn Islands, Polynesia (excluding Hawaii), Samoa, Samoa American, Tokelau, Tonga, Tuvalu, Wallis and Futuma |
| Melanesia (Mela) | Fiji, New Caledonia, Papua New Guinea, Solomon Islands, Vanuatu |
| Central  America (CAme) | Belize, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama |
| South  America (SAme) | Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guinea, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela |
| Northern America (NAme) | Bermuda, Canada, Greenland, Northern America, St Pierre and Miquelon, United States of America |
| Southern  Africa (SAfri) | Botswana, Lesotho, Namibia, South Africa, Swaziland |
| Eastern  Africa (EAfri) | Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mayotte, Mozambique, Réunion, Rwanda, Seychelles, Somalia, Tanzania, Uganda, Zambia, Zimbabwe |
| Northern  Africa (NAfri) | Algeria, Egypt, Libya, Morocco, Spanish North Africa, Sudan, Tunisia, Western Sahara |
| Western  Africa (WAfri) | Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Equatorial Guinea, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, St Helena, Togo |
| Western  Asia (WAsia) | Armenia, Azerbaijan, Bahrain, Cyprus, Gaza Strip and West Bank, Georgia, Iraq, Israel, Jordan, Kurdistan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, Turkey, United Arab Emirates, Yemen |
| South-eastern Asia (SEAsia) | Brunei Darussalam, Burma (Myanmar), Cambodia, east Timor, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Vietnam |
| Eastern  Asia (EAsia) | China, Hong Kong (SAR\* of China), Japan, Korea, Democratic People’s Republic of (North), Korea, Republic of (South), Macau (SAR of China), Mongolia, Taiwan |
| Southern  Asia (SAsia) | Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, Sri Lanka |

\*SAR= Special Administrative Region