

# A Common Tool: FIREARMS, VIOLENCE, AND CRIME

# 6

## ANNEXES

These annexes contain the raw firearm mortality data used to generate the global and regional estimates published in Chapter 6 of the *Small Arms Survey 2004*. Annex 6.1 presents raw data collected from a combination of public health and criminal justice sources. With a total of 160,000 documented deaths from firearm homicides, firearm suicides, unintentional firearm deaths, and firearm deaths of undetermined intent occurring annually in countries covering about half the world's population, these statistics clearly support previous estimates that at least 200,000 firearm deaths occur each year in non-conflict situations. The following section explains in detail how these statistics were used to produce estimates of regional levels of firearm mortality, using Latin America and the Caribbean firearm homicides as an example. The Small Arms Survey recognizes the many limitations of available firearm mortality statistics (see *Small Arms Survey, 2004*, pp. 202–03). The estimates presented in Chapter 6 should thus be treated as a first attempt to identify regional patterns of gun violence; they will be regularly updated and improved as new and better data is collected and made available.

### **Annexe 6.1: Available firearm mortality data**

Table 6.7 is not meant to produce comparisons between different countries. Rather, it presents statistics as supporting evidence for the estimates included in Chapter 6.

Comparing the prevalence of homicides at the national level through different sources (i.e. public health and criminal justice) is highly problematic, as public health figures (e.g. from the World Health Organization) tend to be lower than figures reported by criminal justice authorities to United Nations databases. Research has shown, however, that UN and WHO homicide rates are significantly correlated when data is aggregated (UNODCCP, 1999, Box 0.7, pp. 12–13), which allows for producing global and regional estimates.

It is also important to note that the quality of data from a single source can also vary greatly. In February 2004, for example, the WHO released estimates of the completeness and coverage of its national data (2004a, 2004b). These estimates clearly indicate that for a number of countries, the available statistics are only partial, and should be used with caution when making cross-national comparisons.

**Table 6.7 Available firearm mortality statistics as of September 2003**

| Country            | Firearm homicide  |           |        | Firearm suicides  |      |     | Unintentional firearm deaths |      |       | Firearm deaths of undetermined intent |      |       | Overall homicides |           |        | Overall suicides  |      |       |
|--------------------|-------------------|-----------|--------|-------------------|------|-----|------------------------------|------|-------|---------------------------------------|------|-------|-------------------|-----------|--------|-------------------|------|-------|
|                    | Source            | Year      | #      | Source            | Year | #   | Source                       | Year | #     | Source                                | Year | #     | Source            | Year      | #      | Source            | Year | #     |
| Albania            | WHO               | 1998      | 591    | WHO               | 1998 | 98  | WHO                          | 1998 | 50    | WHO                                   | 1998 | 2     | WHO               | 1998      | 660    | WHO               | 1998 | 165   |
| Argentina          | WHO               | 1997      | 942    | WHO               | 1997 | 861 | WHO                          | 1997 | 304   | WHO                                   | 1997 | 1,121 | WHO               | 1996      | 1,611  | WHO               | 1996 | 2,245 |
| Australia          | WHO               | 1999      | 51     | WHO               | 1999 | 261 | WHO                          | 1999 | 28    | WHO                                   | 1999 | 2     | Alpers            | 1997-2001 | 314    | WHO               | 1998 | 2,633 |
| Austria            | WHO               | 1999      | 17     | WHO               | 1999 | 272 | WHO                          | 1999 | 3     | WHO                                   | 1999 | 1     | WHO               | 1999      | 68     | WHO               | 1999 | 1,555 |
| Azerbaijan         | UNODC             | 2000      | 18     |                   |      |     |                              |      |       |                                       |      |       | UNODC             | 2000      | 226    | WHO               | 1999 | 54    |
| Bahamas            | UNODC             | 1997      | 18     |                   |      |     |                              |      |       |                                       |      |       | UNODC             | 1997      | 46     |                   |      |       |
| Bahrain            | WHO               | 2000      | 2      |                   |      |     |                              |      |       |                                       |      |       | Interpol          | 1998      | 9      |                   |      |       |
| Bangladesh         | SAFER-NET         | 2000      | 1,456  | SAFER-NET         | 2000 | 18  | SAFER-NET                    | 2000 | 44    |                                       |      |       | SAFER NET         | 2000      | 1,887  | SAFER-NET         | 2000 | 1,479 |
| Belarus            | UNODC             | 2000      | 331    |                   |      |     | UN                           | 1996 | 9     |                                       |      |       | UNODC             | 2000      | 1,013  | WHO               | 1999 | 3,408 |
| Belgium            | WHO               | 1995      | 59     | WHO               | 1995 | 289 | WHO                          | 1995 | 2     | WHO                                   | 1995 | 29    | WHO               | 1995      | 169    | WHO               | 1995 | 2,155 |
| Belize             | WHO               | 1998      | 32     |                   |      |     | WHO                          | 1998 | 0     | WHO                                   | 1998 | 0     | Interpol          | 1998      | 32     |                   |      |       |
| Brazil             | Brazilian MOJ     | 1998      | 25,603 | UN                | 1995 | 700 | UN                           | 1995 | 1,200 | SAFER-NET                             | 1995 | 4,114 | Brazilian MOJ     | 1998      | 41,838 | WHO               | 1995 | 6,584 |
| Brunei             | UN                | 1997      | 1      |                   |      |     |                              |      |       |                                       |      |       | UN                | 1997      | 9      |                   |      |       |
| Bulgaria           | UNODC             | 2000      | 63     | WHO               | 1999 | 55  | WHO                          | 1999 | 20    | WHO                                   | 1999 | 7     | UNODC             | 2000      | 332    | WHO               | 1999 | 1,307 |
| Burkina Faso       | UN                | 1995      | 4      | UN                | 1995 | 15  | UN                           | 1995 | 5     | UN                                    | 1995 | 476   | Interpol          | 1998      | 42     | UN                | 1995 | 100   |
| Canada             | Statistics Canada | 2001      | 171    | Statistics Canada | 1999 | 802 | WHO                          | 1997 | 45    | WHO                                   | 1997 | 12    | Statistics Canada | 2001      | 554    | Statistics Canada | 1999 | 4,074 |
| Cayman Islands     |                   |           |        |                   |      |     | WHO                          | 2000 | 1     | WHO                                   | 2000 | 0     | Interpol          | 1996      | 1      |                   |      |       |
| Chile              | WHO               | 1999      | 82     | WHO               | 1999 | 110 | WHO                          | 1999 | 10    | WHO                                   | 1999 | 272   | UNODC             | 2000      | 235    |                   |      |       |
| Colombia           | UNODC             | 2000      | 21,898 | WHO               | 1998 | 632 | WHO                          | 1998 | 73    | WHO                                   | 1998 | 642   | UNODC             | 2000      | 26,539 | SAFER-NET         | 1998 | 2,046 |
| Cook Islands       | Alpers            | 1997-2001 | 0      |                   |      |     |                              |      |       |                                       |      |       | Alpers            | 1997-2001 | 0      |                   |      |       |
| Costa Rica         | UNODC             | 1999      | 126    | WHO               | 2000 | 63  | WHO                          | 2000 | 5     | WHO                                   | 2000 | 10    | UNODC             | 1999      | 245    | WHO               | 1995 | 211   |
| Croatia            | WHO               | 2000      | 48     | WHO               | 2000 | 143 | WHO                          | 2000 | 5     | WHO                                   | 2000 | 4     | Interpol          | 2000      | 100    | WHO               | 1999 | 989   |
| Cuba               | UN                | 1996      | 65     |                   |      |     | UN                           | 1996 | 30    |                                       |      |       | SAFER-NET         | 1996      | 732    | WHO               | 1997 | 2,029 |
| Cyprus             | UNODC             | 1997      | 4      |                   |      |     |                              |      |       |                                       |      |       | UNODC             | 1997      | 6      |                   |      |       |
| Czech Republic     | WHO               | 2000      | 36     | WHO               | 2000 | 174 | WHO                          | 2000 | 7     | WHO                                   | 2000 | 15    | UNODC             | 2000      | 174    | WHO               | 1999 | 1,610 |
| Denmark            | UNODC             | 2000      | 14     | WHO               | 1998 | 78  | WHO                          | 1998 | 1     | WHO                                   | 1998 | 3     | UNODC             | 2000      | 58     | WHO               | 1996 | 892   |
| Dominica           | UNODC             | 1998      | 1      |                   |      |     |                              |      |       |                                       |      |       | UNODC             | 2000      | 2      |                   |      |       |
| Dominican Republic | WHO               | 1998      | 314    | WHO               | 1998 | 25  | WHO                          | 1998 | 4     | WHO                                   | 1998 | 55    | Interpol          | 1998      | 1,121  |                   |      |       |
| Ecuador            | WHO               | 2000      | 1,321  | WHO               | 2000 | 95  | WHO                          | 2000 | 31    | WHO                                   | 2000 | 201   | Interpol          | 1999      | 1,682  | WHO               | 1996 | 593   |
| Egypt              | WHO               | 2000      | 16     | WHO               | 2000 | 18  | WHO                          | 2000 | 83    | WHO                                   | 2000 | 40    | UNODC             | 1994      | 231    |                   |      |       |
| El Salvador        | SAFER NET         | 1999      | 1,898  | WHO               | 1999 | 16  | WHO                          | 1999 | 10    |                                       |      |       | SAFER NET         | 1999      | 2,542  | WHO               | 1993 | 429   |
| England and Wales  | WHO               | 1999      | 23     | WHO               | 1999 | 115 | WHO                          | 1999 | 6     | WHO                                   | 1999 | 15    | WHO               | 1999      | 295    | WHO               | 1999 | 3,690 |
| Estonia            | Estonian MOI      | 2001      | 13     | WHO               | 2000 | 31  | WHO                          | 2000 | 1     | WHO                                   | 2000 | 7     | Estonian MOI      | 2001      | 164    | WHO               | 1999 | 469   |

**Table 6.7 Available firearm mortality statistics as of September 2003 (cont.)**

| Country                        | Firearm homicide |           |       | Firearm suicides |      |       | Unintentional firearm deaths |           |       | Firearm deaths of undetermined intent |           |     | Overall homicides |           |        | Overall suicides |           |        |
|--------------------------------|------------------|-----------|-------|------------------|------|-------|------------------------------|-----------|-------|---------------------------------------|-----------|-----|-------------------|-----------|--------|------------------|-----------|--------|
|                                | Source           | Year      | #     | Source           | Year | #     | Source                       | Year      | #     | Source                                | Year      | #   | Source            | Year      | #      | Source           | Year      | #      |
| Federated States of Micronesia | Alpers           | 1997-2001 | 0     |                  |      |       |                              |           |       |                                       |           |     | Alpers            | 1997-2001 | 1      |                  |           |        |
| Fiji                           | UN               | 1996      | 0     |                  |      |       | UN                           | 1996      | 0     |                                       |           |     | UN                | 1998      | 18     | UN               | 1996      | 0      |
| Finland                        | WHO              | 2000      | 32    | WHO              | 2000 | 200   | WHO                          | 2000      | 0     | WHO                                   | 2000      | 3   | UNODC             | 2000      | 148    | WHO              | 1998      | 1,228  |
| France                         | WHO              | 1998      | 170   | WHO              | 1998 | 2,386 | WHO                          | 1998      | 68    | WHO                                   | 1998      | 340 | WHO               | 1998      | 436    | WHO              | 1998      | 10,534 |
| FYROM                          | UNODC            | 2000      | 26    | WHO              | 1997 | 16    | WHO                          | 1997      | 5     | WHO                                   | 1997      | 0   | UNODC             | 2000      | 47     | WHO              | 1997      | 155    |
| Georgia                        | WHO              | 2000      | 82    | WHO              | 2000 | 1     | WHO                          | 2000      | 11    | WHO                                   | 2000      | 27  | UNODC             | 2000      | 239    | WHO              | 1992      | 204    |
| Germany                        | WHO              | 1999      | 155   | WHO              | 1999 | 906   | WHO                          | 1999      | 16    | WHO                                   | 1999      | 124 | WHO               | 1999      | 720    | WHO              | 1999      | 11,160 |
| Greece                         | WHO              | 1998      | 74    | WHO              | 1998 | 86    | WHO                          | 1998      | 34    | WHO                                   | 1998      | 0   | WHO               | 1998      | 144    | WHO              | 1998      | 403    |
| Guinea                         | UN               | 1995      | 2     |                  |      |       |                              |           |       |                                       |           |     | UN                | 1995      | 25     |                  |           |        |
| Honduras                       | SAFER NET        | 1999      | 1,021 |                  |      |       |                              |           |       |                                       |           |     | SAFER NET         | 2000      | 2,837  |                  |           |        |
| Hong Kong                      | UNODC            | 2000      | 1     | SAFER-NET        | 1999 | 2     | WHO                          | 1996      | 0     | WHO                                   | 1996      | 0   | UNODC             | 2000      | 38     | SAFER-NET        | 1999      | 872    |
| Hungary                        | UNODC            | 2000      | 44    | WHO              | 2001 | 108   | WHO                          | 2001      | 4     | WHO                                   | 2001      | 4   | UNODC             | 2000      | 205    | WHO              | 1999      | 3,328  |
| Iceland                        | WHO              | 1997      | 0     | WHO              | 1997 | 7     | WHO                          | 1994-1996 | 0     | WHO                                   | 1994-1996 | 1   | Interpol          | 1997      | 2      | WHO              | 1994-1996 | 28     |
| India                          | UNODC            | 1999      | 9,284 | UN               | 1994 | 586   | UN                           | 1994      | 2,375 |                                       |           |     | UNODC             | 1999      | 37,170 | UN               | 1994      | 89,195 |
| Ireland                        | UNODC            | 1999      | 12    | WHO              | 1997 | 44    | WHO                          | 1997      | 3     | WHO                                   | 1997      | 0   | UNODC             | 1999      | 38     | WHO              | 1997      | 466    |
| Israel                         | WHO              | 1997      | 15    | WHO              | 1997 | 73    | WHO                          | 1997      | 0     | WHO                                   | 1997      | 73  | WHO               | 1997      | 30     | WHO              | 1997      | 379    |
| Italy                          | WHO              | 1997      | 463   | WHO              | 1997 | 626   | WHO                          | 1997      | 38    | WHO                                   | 1997      | 44  | WHO               | 1997      | 720    | WHO              | 1997      | 4,694  |
| Jamaica                        | UN               | 1995      | 450   | UN               | 1995 | 9     |                              |           |       |                                       |           |     | UN                | 1995      | 780    | WHO              | 1995      | 36     |
| Japan                          | WHO              | 1999      | 24    | WHO              | 1999 | 47    | WHO                          | 1999      | 7     | WHO                                   | 1999      | 7   | Interpol          | 1999      | 689    | WHO              | 1997      | 23,502 |
| Jordan                         | UNODC            | 1997      | 42    |                  |      |       |                              |           |       |                                       |           |     | UNODC             | 1997      | 217    |                  |           |        |
| Kazakhstan                     |                  |           |       |                  |      |       | SAFER-NET                    | 1997      | 83    |                                       |           |     | Interpol          | 2001      | 3,119  | WHO              | 1999      | 4,004  |
| Kiribati                       | Alpers           | 1997-2001 | 0     |                  |      |       |                              |           |       |                                       |           |     | Alpers            | 1997-2001 | 7      |                  |           |        |
| Kuwait                         | WHO              | 2000      | 12    | WHO              | 1999 | 0     | WHO                          | 2000      | 0     | WHO                                   | 2000      | 0   | WHO               | 1999      | 39     | WHO              | 1999      | 47     |
| Kyrgyzstan                     | WHO              | 2000      | 44    | WHO              | 2000 | 11    | WHO                          | 2000      | 3     | WHO                                   | 2000      | 9   | Interpol          | 2000      | 413    | WHO              | 1999      | 559    |
| Latvia                         | WHO              | 2000      | 31    | WHO              | 2000 | 32    | WHO                          | 2000      | 3     | WHO                                   | 2000      | 3   | UNODC             | 2000      | 238    | WHO              | 1999      | 764    |
| Lesotho                        | UNODC            | 1997      | 477   |                  |      |       |                              |           |       |                                       |           |     | Interpol          | 1999      | 857    |                  |           |        |
| Lithuania                      | WHO              | 2000      | 51    | WHO              | 2000 | 40    | WHO                          | 2000      | 7     | WHO                                   | 2000      | 13  | UNODC             | 2000      | 370    | WHO              | 1999      | 1,552  |
| Luxemburg                      | WHO              | 2001      | 2     | WHO              | 2001 | 7     | WHO                          | 2001      | 0     | WHO                                   | 2001      | 0   | Interpol          | 2001      | 6      | WHO              | 1995-1997 | 72     |
| Malaysia                       | UN               | 1995      | 41    |                  |      |       | UN                           | 1995      | 16    |                                       |           |     | Interpol          | 1995      | 428    | UN               | 1995      | 368    |
| Malta                          | WHO              | 1999      | 6     | WHO              | 1999 | 3     | WHO                          | 1999      | 1     | WHO                                   | 1999      | 0   | Interpol          | 1999      | 6      | SAFER-NET        | 1997      | 15     |
| Marshall Islands               | Alpers           | 1997-2001 | 0     |                  |      |       |                              |           |       |                                       |           |     | Alpers            | 1997-2001 | 2      |                  |           |        |
| Mexico                         | WHO              | 2000      | 5,452 | WHO              | 2000 | 693   | WHO                          | 2000      | 477   | WHO                                   | 2000      | 329 | UNODC             | 2000      | 13,829 | SAFER-NET        | 1999      | 3,326  |
| Moldova                        | WHO              | 2000      | 46    | WHO              | 2000 | 8     | WHO                          | 2000      | 6     | WHO                                   | 2000      | 5   | UNODC             | 2000      | 348    | WHO              | 1999      | 579    |
| Nauru                          | Alpers           | 1997-2001 | 0     |                  |      |       |                              |           |       |                                       |           |     | Alpers            | 1997-2001 | 0      |                  |           |        |

**Table 6.7 Available firearm mortality statistics as of September 2003 (cont.)**

| Country             | Firearm homicide |           |        | Firearm suicides          |      |       | Unintentional firearm deaths |      |     | Firearm deaths of undetermined intent |      |     | Overall homicides |           |        | Overall suicides |      |       |
|---------------------|------------------|-----------|--------|---------------------------|------|-------|------------------------------|------|-----|---------------------------------------|------|-----|-------------------|-----------|--------|------------------|------|-------|
|                     | Source           | Year      | #      | Source                    | Year | #     | Source                       | Year | #   | Source                                | Year | #   | Source            | Year      | #      | Source           | Year | #     |
| The Netherlands     | WHO              | 1999      | 75     | WHO                       | 1999 | 51    | WHO                          | 1999 | 5   | WHO                                   | 1999 | 0   | WHO               | 1999      | 203    | WHO              | 1999 | 1,517 |
| New Zealand         | Alpers           | 1997-2001 | 8      | WHO                       | 1998 | 72    | WHO                          | 1998 | 6   | WHO                                   | 1998 | 2   | Alpers            | 1997-2001 | 69     | WHO              | 1998 | 574   |
| Nicaragua           | WHO              | 2000      | 165    | WHO                       | 2000 | 18    | WHO                          | 2000 | 27  | WHO                                   | 2000 | 20  | Interpol          | 1998      | 670    | WHO              | 1996 | 230   |
| Niue                | Alpers           | 1997-2001 | 1      |                           |      |       |                              |      |     |                                       |      |     | Alpers            | 1997-2001 | 1      |                  |      |       |
| Northern Ireland    | WHO              | 1999      | 15     | WHO                       | 1999 | 11    | WHO                          | 1999 | 0   | WHO                                   | 1999 | 2   | WHO               | 1999      | 24     | WHO              | 1999 | 121   |
| Norway              | Kripos           | 2002      | 9      | Statistisk<br>sentralbyrå | 2000 | 107   | Statistisk<br>sentralbyrå    | 2000 | 0   | WHO                                   | 1997 | 0   | Kripos            | 2002      | 35     | WHO              | 1997 | 533   |
| Palau               | Alpers           | 1997-2001 | 0      |                           |      |       |                              |      |     |                                       |      |     |                   |           |        |                  |      |       |
| Panama              | WHO              | 2000      | 181    | WHO                       | 2000 | 13    | WHO                          | 2000 | 11  | WHO                                   | 2000 | 11  | WHO               | 1997      | 293    | WHO              | 1997 | 145   |
| Peru                | WHO              | 2000      | 161    | WHO                       | 2000 | 29    | WHO                          | 2000 | 244 | WHO                                   | 2000 | 33  | Interpol          | 1998      | 724    | UN               | 1996 | 101   |
| Philippines         | UN               | 1996      | 2,496  |                           |      |       |                              |      |     |                                       |      |     | UN                | 1996      | 11,671 | WHO              | 1993 | 851   |
| Poland              | WHO              | 2000      | 79     | WHO                       | 2000 | 23    | WHO                          | 2000 | 15  | WHO                                   | 2000 | 54  | Interpol          | 2000      | 855    | SAFER-NET        | 1996 | 5,446 |
| Portugal            | UNODC            | 2000      | 84     | WHO                       | 1999 | 62    | WHO                          | 1999 | 2   | WHO                                   | 1999 | 77  | UNODC             | 2000      | 247    | WHO              | 1999 | 545   |
| Puerto Rico         | WHO              | 1999      | 594    | WHO                       | 1999 | 53    | WHO                          | 1999 | 40  | WHO                                   | 1999 | 3   | WHO               | 1998      | 804    | WHO              | 1998 | 321   |
| Qatar               | UNODC            | 1999      | 1      |                           |      |       |                              |      |     |                                       |      |     | UNODC             | 1999      | 3      |                  |      |       |
| Republic of Korea   | WHO              | 2000      | 9      | WHO                       | 2000 | 15    | WHO                          | 2000 | 4   | WHO                                   | 2000 | 0   | UNODC             | 2000      | 955    | WHO              | 1997 | 6,024 |
| Romania             | WHO              | 2001      | 17     | WHO                       | 2001 | 21    | WHO                          | 2001 | 20  | WHO                                   | 2001 | 1   | WHO               | 1999      | 803    | WHO              | 1999 | 2,736 |
| Samoa               | Alpers           | 1997-2001 | 2      | UN                        | 1997 | 1     | UN                           | 1997 | 1   |                                       |      |     | Alpers            | 1997-2001 | 35     | UN               | 1995 | 4     |
| Scotland            | WHO              | 2001      | 5      | WHO                       | 2001 | 7     | WHO                          | 2001 | 0   | WHO                                   | 2001 | 1   | Interpol          | 2001      | 99     | WHO              | 1999 | 637   |
| Singapore           | WHO              | 1998      | 0      | WHO                       | 1998 | 5     | WHO                          | 1998 | 1   | WHO                                   | 1998 | 0   | WHO               | 1998      | 45     | WHO              | 1998 | 371   |
| Slovakia            | WHO              | 2000      | 34     | WHO                       | 2000 | 85    | WHO                          | 2000 | 18  | WHO                                   | 2000 | 18  | UNODC             | 2000      | 143    | WHO              | 1999 | 692   |
| Slovenia            | UNODC            | 2000      | 12     | WHO                       | 1999 | 49    | WHO                          | 1999 | 2   | WHO                                   | 1999 | 1   | UNODC             | 2000      | 36     | WHO              | 1999 | 590   |
| South Africa        | Chetty           | 1999      | 13,572 | Chetty                    | 1999 | 1,716 | Chetty                       | 1999 | 156 | Chetty                                | 1999 | 156 | Chetty            | 1999      | 28,275 | Chetty           | 1999 | 5,047 |
| Spain               | UNODC            | 2000      | 97     | WHO                       | 1999 | 178   | WHO                          | 1999 | 34  | WHO                                   | 1999 | 0   | UNODC             | 2000      | 494    | WHO              | 1998 | 3,261 |
| Sri Lanka           | UNODC            | 1997      | 562    |                           |      |       |                              |      |     |                                       |      |     | UNODC             | 1997      | 1,851  |                  |      |       |
| Sweden              | WHO              | 1999      | 30     | WHO                       | 1999 | 154   | WHO                          | 1999 | 1   | WHO                                   | 1999 | 3   | UNODC             | 1997      | 157    | WHO              | 1996 | 1,253 |
| Switzerland         | UNODC            | 2000      | 40     | WHO                       | 1998 | 412   | SAFER-NET                    | 1998 | 7   |                                       |      |     | UNODC             | 2000      | 69     | WHO              | 1996 | 1,431 |
| Tajikistan          | UNODC            | 1997      | 459    |                           |      |       |                              |      |     |                                       |      |     | UNODC             | 1997      | 551    | WHO              | 1995 | 199   |
| Tanzania            | UNODC            | 1997      | 175    |                           |      |       | UN                           | 1995 | 5   |                                       |      |     | UNODC             | 1997      | 2,355  | UN               | 1995 | 263   |
| Thailand            | WHO              | 1994      | 2,184  | WHO                       | 1994 | 158   | WHO                          | 1994 | 84  | WHO                                   | 1994 | 8   | WHO               | 1994      | 4,161  | WHO              | 1994 | 2,333 |
| Tonga               | Alpers           | 2001      | 0      |                           |      |       |                              |      |     |                                       |      |     | Interpol          | 1999      | 1      |                  |      |       |
| Trinidad and Tobago | UN               | 1995      | 44     | UN                        | 1995 | 1     | UN                           | 1995 | 7   |                                       |      |     | UN                | 1995      | 122    | UN               | 1995 | 104   |
| Tunisia             |                  |           |        | UN                        | 1996 | 2     | UN                           | 1996 | 0   |                                       |      |     | Interpol          | 2002      | 120    |                  |      |       |
| Turkey              |                  |           |        |                           |      |       |                              |      |     |                                       |      |     | Interpol          | 2002      | 2,820  | UN               | 1996 | 1,415 |

**Table 6.7 Available firearm mortality statistics as of September 2003 (cont.)**

| Country        | Firearm homicide |           |                | Firearm suicides |      |               | Unintentional firearm deaths |      |              | Firearm deaths of undetermined intent |      |               | Overall homicides |           |        | Overall suicides |      |        |
|----------------|------------------|-----------|----------------|------------------|------|---------------|------------------------------|------|--------------|---------------------------------------|------|---------------|-------------------|-----------|--------|------------------|------|--------|
|                | Source           | Year      | #              | Source           | Year | #             | Source                       | Year | #            | Source                                | Year | #             | Source            | Year      | #      | Source           | Year | #      |
| Tuvalu         | Alpers           | 1997-2001 | 0              |                  |      |               |                              |      |              |                                       |      |               | Alpers            | 1997-2001 | 1      |                  |      |        |
| Ukraine        | UNODC            | 2000      | 173            |                  |      |               |                              |      |              |                                       |      |               | Interpol          | 2000      | 4,421  | WHO              | 1999 | 14,452 |
| United States  | US DOJ           | 2001      | 10,130         | WHO              | 1999 | 16,599        | WHO                          | 1999 | 824          | WHO                                   | 1999 | 324           | US DOJ            | 2001      | 15,980 | WHO              | 1999 | 29,199 |
| Uruguay        | WHO              | 2000      | 104            | WHO              | 2000 | 240           | WHO                          | 2000 | 118          | WHO                                   | 2000 | 3             | UNODC             | 2000      | 154    | WHO              | 1990 | 318    |
| Vanuatu        | Alpers           | 1997-2001 | 0              |                  |      |               |                              |      |              |                                       |      |               | Alpers            | 1997-2001 | 1      |                  |      |        |
| Venezuela      | WHO              | 2000      | 5,408          | WHO              | 2000 | 283           | WHO                          | 2000 | 103          | WHO                                   | 2000 | 2,581         | UNODC             | 2000      | 8,022  | WHO              | 1994 | 1,089  |
| Vietnam        | UN               | 1995      | 85             | UN               | 1995 | 16            | UN                           | 1995 | 30           |                                       |      |               | UN                | 1995      | 569    |                  |      |        |
| Virgin Islands |                  |           |                | WHO              | 1999 | 3             | WHO                          | 1999 | 2            |                                       |      |               |                   |           |        |                  |      |        |
| Zambia         | UN               | 1995      | 434            | UN               | 1995 | 5             | UN                           | 1995 | 2            |                                       |      |               | UN                | 1995      | 868    | UN               | 1995 | 55     |
| Zimbabwe       | UNODC            | 2000      | 598            | UN               | 1995 | 12            |                              |      |              |                                       |      |               | UNODC             | 2000      | 912    |                  |      |        |
| <b>TOTALS</b>  |                  |           | <b>110,728</b> |                  |      | <b>31,065</b> |                              |      | <b>6,903</b> |                                       |      | <b>11,308</b> |                   |           |        |                  |      |        |

Note: Table 6.7 shows the statistics the Small Arms Survey was able to collect by September 2003. These statistics are being regularly updated, as new information is being solicited and released. The updated data can be made available upon request.

Key to Sources: *Alpers*: Alpers and Twyford (2003); *Brazilian MOJ*: Brazilian Ministry of Justice data, courtesy of Paulo de Mesquita Neto; *Chetty*: Chetty (2000); *Estonian MOI*: Small Arms Survey communication with the Estonian Ministry of the Interior; *Interpol*: Interpol (2003); *Kripos*: Kripos online databank <www.kripos.no> (accessed September 2003); *SAFER-NET*: SAFER-NET and HELP NETWORK (2001); *Statistics Canada*: Hung (2003); *Statistisk sentralbyrå*: Statistisk sentralbyrå online databank <www.ssb.no>, accessed September 2003; *UN*: UN (1998, 1999); *UNODC*: UNODC (2003); *US DOJ*: United States Department of Justice statistics quoted in Hung (2003); *WHO*: WHO (2002, 2003).

## Annexe 6.2: Estimating regional firearm homicide rates in Latin America and the Caribbean

This section shows how statistics from Table 6.7 were derived to produce the Latin America and the Caribbean firearm homicide estimates (for the list of countries contained in the region, and an overview of the methodology used, see Small Arms Survey, 2004, pp. 200–02). The approach below was used systematically throughout regions. For regions with less abundant and reliable data, more arbitrary judgements were made, although alternative sources such as press clips and correspondence with experts were consulted to the extent possible. In some regions the data was even more comprehensive, as reflected by the lower error margins (computed as the lower relative difference between lower and upper thresholds).

**Establishing the lower threshold:** 21 documented countries in Latin America and the Caribbean experience a total of 65,862 firearm homicides per year, for a total population of 504,093,000 (population figures taken from UN Population Division, 2002). This leaves 22 countries in the region without firearm homicide data, covering 38,770,000 people. The cumulated firearm homicide rate of the 21 documented countries is 13.1 per 100,000. A closer examination of the data, however, shows that Colombia and El Salvador, with national firearm homicide rates of 49 and 29 per 100,000 respectively, clearly stand out as outliers (i.e. more than two standard deviation units from the mean). A new rate is therefore calculated on the basis of the 19 other countries and disregarding the two outliers, and is revised down to 9.3 per 100,000. This lower rate is then applied to the population of the 22 countries that have no data (38,770,000 people), which produces an additional estimated 3,597 annual deaths in these countries. The lower threshold estimate is calculated by adding the documented deaths to the estimated deaths in the 22 remaining countries:  $lower\ threshold = 65,862 + 3,597 = 69,459$ . With a total population of 542,863,000, the region has an estimated lower threshold rate of 12.8 annual firearm homicides per 100,000.

**Establishing the upper threshold:** The WHO estimates that 140,000 homicides occur in Latin America and the Caribbean each year (WHO, 2002). A comparison of this estimate with our lower threshold estimate would show that approximately 50 per cent of homicides are committed with firearms. This result is somewhat lower than that suggested by data on overall and firearm homicides in those 21 countries, namely that between 53 per cent (mean of national rates) and 62.9 per cent (cumulated rate) of homicides are committed with firearms. Here, we assume that about 60 per cent of the region's estimated homicides are perpetrated with firearms. This indicates that there may be as many as  $140,000 \times 60\ per\ cent = 84,000$  firearm homicides in the region annually, at a rate of 15.5 per 100,000.

## REFERENCES:

- Alpers, Philip and Conor Twyford. 2003. *Small Arms in the Pacific*. Occasional Paper 8. Geneva: Small Arms Survey.
- Chetty, Robert, ed. 2000. *Firearm Use and Distribution in South Africa*. Pretoria: The National Crime Prevention Centre Firearm Programme.
- Interpol. 2003. International Crime Statistics. <<http://www.interpol.int/Public/Statistics/ICS/downloadList.asp>>
- SAFER-NET and HELP NETWORK. 2001. *Nation Status Report on Violence and Small Arms*. Chicago and Ontario: SAFER-NET and HELP NETWORK.
- Small Arms Survey. 2004. *Small Arms Survey 2004: Rights at Risk*. Oxford: Oxford University Press.
- UN (United Nations). 1998. *International Study on Firearm Regulation*. New York: UN.
- . 1999. 'International Study on Firearm Regulation database, 1999 updated data.' <<http://www.uncjin.org/Statistics/firearms/>> (accessed June 2003)
- . Population Division. 2002. *World Population Prospects: The 2002 Revision*. New York: UN Population Division.
- UNODC (United Nations Office on Drugs and Crime). 2003. 'Surveys on Crime Trends and the Operations of Criminal Justice Systems.' <[http://www.unodc.org/unodc/crime\\_cicp\\_surveys.html](http://www.unodc.org/unodc/crime_cicp_surveys.html)> (accessed June 2003)
- UNODCCP (United Nations Office for Drug Control and Crime Prevention). 1999. *Global Report on Crime and Justice*. New York and Oxford: Oxford University Press.
- WHO (World Health Organization). 2002. *World Report on Violence and Health*. Geneva: WHO.
- . 2003. *Mortality Database*. <[http://www3.who.int/whosis/mort/text/download.cfm?path=whosis,whsa,mort\\_download&language=english](http://www3.who.int/whosis/mort/text/download.cfm?path=whosis,whsa,mort_download&language=english)> (accessed June 2003)
- . 2004a. 'Table 3: Estimated completeness of mortality data for latest year.' <[http://www3.who.int/whosis/mort/table3.cfm?path=whosis,whsa,mort\\_download,mort\\_table3](http://www3.who.int/whosis/mort/table3.cfm?path=whosis,whsa,mort_download,mort_table3) > (accessed February 2004)
- . 2004b. 'Table 4: Estimated coverage of mortality data for latest year.' <[http://www3.who.int/whosis/mort/table4.cfm?path=whosis,whsa,mort\\_download,mort\\_table4](http://www3.who.int/whosis/mort/table4.cfm?path=whosis,whsa,mort_download,mort_table4) > (accessed February 2004)