

**Table 1**  
**Status of Death Registries in Countries of the Americas for the Latest Three Years of Available Information, around 2000**

| Country                        | Latest 3 Years available | Registered deaths (average) | Crude death rate <sup>1</sup> |           | Estimated under registration (%) |
|--------------------------------|--------------------------|-----------------------------|-------------------------------|-----------|----------------------------------|
|                                |                          |                             | Registered                    | Estimated |                                  |
| <b>None or Low</b>             |                          |                             |                               |           |                                  |
| Argentina                      | 2001-2003                | 292881                      | 7.8                           | 7.8       | -                                |
| Belize                         | 1999-2001                | 1328                        | 5.5                           | 5.0       | -                                |
| Chile                          | 2001-2003                | 82207                       | 5.2                           | 5.2       | -                                |
| Costa Rica                     | 2001-2003                | 20738                       | 5.1                           | 5.1       | -                                |
| Ecuador                        | 2001-2003                | 54710                       | 4.3                           | 4.3       | -                                |
| Guatemala                      | 2001-2003                | 66874                       | 5.7                           | 5.7       | -                                |
| Martinique                     | 2000,2001                | 2720                        | 7.0                           | 7.0       | -                                |
| Netherlands Antilles (Curaçao) | 1990,95,00               | 990                         | 7.0                           | 6.7       | -                                |
| Saint Vincent                  | 1998-2000                | 788                         | 6.8                           | 6.8       | -                                |
| Trinidad and Tobago            | 1998-2000                | 9709                        | 7.6                           | 7.3       | -                                |
| United States                  | 2000-2002                | 2421054                     | 8.4                           | 8.4       | -                                |
| Venezuela                      | 2000-2002                | 108923                      | 4.4                           | 4.4       | -                                |
| French Guiana                  | 2000,2001                | 655                         | 3.9                           | 3.9       | -                                |
| Guadeloupe                     | 2000,2001                | 2793                        | 6.5                           | 6.5       | -                                |
| Virgin Islands (US)            | 2000-2002                | 621                         | 5.6                           | 5.6       | 0.3                              |
| Canada                         | 2000-2002                | 220401                      | 7.1                           | 7.2       | 1.2                              |
| Uruguay                        | 1999-2001                | 31326                       | 9.4                           | 9.6       | 2.6                              |
| Cuba                           | 2001-2003                | 77237                       | 6.9                           | 7.1       | 3.2                              |
| Barbados                       | 1995,00,01               | 2214                        | 8.4                           | 8.8       | 5.1                              |
| Puerto Rico                    | 2000-2002                | 29457                       | 7.4                           | 8.1       | 9.0                              |
| Mexico                         | 2001-2003                | 456459                      | 4.4                           | 4.9       | 9.7                              |
| <b>Intermediate</b>            |                          |                             |                               |           |                                  |
| Brazil                         | 2000-2002                | 963556                      | 5.5                           | 6.2       | 11.6                             |
| Panama                         | 2001-2003                | 12706                       | 4.1                           | 5.0       | 17.4                             |
| St. Lucia                      | 2000-2002                | 896                         | 5.8                           | 7.6       | 17.8                             |
| <b>High</b>                    |                          |                             |                               |           |                                  |
| Colombia                       | 1999-2001                | 187348                      | 4.4                           | 5.7       | 22.3                             |
| Bahamas                        | 1998-2000                | 1659                        | 5.6                           | 7.3       | 23.5                             |
| El Salvador                    | 2001-2003                | 28815                       | 4.4                           | 5.9       | 24.5                             |
| Suriname                       | 1990-1992                | 2057                        | 5.1                           | 6.8       | 25.2                             |
| Paraguay                       | 2001-2003                | 19038                       | 3.3                           | 4.5       | 26.9                             |
| Guyana                         | 1989,95,96               | 5126                        | 7.0                           | 9.9       | 29.4                             |
| Jamaica                        | 1989-1991                | 11848                       | 5.0                           | 7.1       | 29.6                             |
| Dominican Republic             | 2000-2002                | 25278                       | 3.0                           | 5.2       | 42.2                             |
| Nicaragua                      | 2000-2002                | 14303                       | 2.8                           | 5.0       | 43.3                             |
| Peru                           | 1998-2000                | 87467                       | 3.4                           | 6.5       | 47.8                             |
| Honduras                       | 1989,1990                | 13809                       | 2.9                           | 7.2       | 60.0                             |
| Haiti                          | 2001-2003                | 8422                        | 1.0                           | 9.8       | 89.5                             |

1. Rate per 1,000 population. For the Bahamas, Barbados, Belize, Canada, Guyana, Jamaica, Netherlands Antilles, Puerto Rico, Saint Lucia, St. Vincent, Suriname, Trinidad and Tobago, United States, and Virgin Islands (US), the estimated rates are from the *World Population Prospects: The 2004 Revision, Vol. 1: Comprehensive Tables*, Population Division, United Nations, New York, 2005.

**Table 2**  
**Percent of Registered Deaths assigned to Symptoms, Signs and Ill-Defined Conditions**  
**(SSI) (ICD-9: 780-799 ICD-10: R00-R99), around 1985 and 2000**

| <b>Country</b>                     | <b>Latest 3 Years</b> | <b>Cumulative Deaths</b> | <b>SSI % Around 2000</b> | <b>SSI % Around 1985</b> |
|------------------------------------|-----------------------|--------------------------|--------------------------|--------------------------|
| <b>SSI Less than 5%, 2000</b>      |                       |                          |                          |                          |
| Cuba                               | 2001-2003             | 231712                   | 0.7                      | 0.2                      |
| Puerto Rico                        | 2000-2002             | 85371                    | 0.9                      | 0.8                      |
| Venezuela                          | 2000-2002             | 326769                   | 0.9                      | 12.7                     |
| United States                      | 2000-2002             | 7263183                  | 1.3                      | 1.5                      |
| Canada                             | 2000-2002             | 661203                   | 1.3                      | 1.5                      |
| Montserrat                         | 2001-2003             | 149                      | 1.3                      | ...                      |
| Costa Rica                         | 2001-2003             | 62213                    | 1.4                      | 3.4                      |
| Bahamas                            | 1998-2000             | 4976                     | 1.4                      | 2.5                      |
| Bermuda                            | 1998-2000             | 1471                     | 1.5                      | 4.8                      |
| Virgin Islands (US)                | 2000-2002             | 1863                     | 1.6                      | ...                      |
| Cayman Islands                     | 1998-2000             | 382                      | 1.8                      | 2.8                      |
| Trinidad and Tobago                | 1998-2000             | 29128                    | 1.9                      | 2.6                      |
| Saint Vincent                      | 1998-2000             | 2365                     | 2.1                      | 12.0                     |
| Colombia                           | 1999-2001             | 562045                   | 2.1                      | 5.4                      |
| Mexico                             | 2001-2003             | 1369376                  | 2.1                      | 4.5                      |
| Virgin Islands (UK)                | 1996-1998             | 256                      | 2.3                      | 5.5                      |
| Guyana                             | 1989,95,96            | 15379                    | 2.4                      | 6.9                      |
| Chile                              | 2001-2003             | 246622                   | 3.1                      | 8.3                      |
| Barbados                           | 195,00,01             | 6641                     | 3.5                      | 3.6                      |
| Belize                             | 1999-2001             | 3984                     | 3.5                      | 10.5                     |
| Nicaragua                          | 2000-2003             | 42908                    | 3.6                      | ...                      |
| Netherlands Antilles (Curaçao)     | 1990,95,00            | 2969                     | 4.8                      | ...                      |
| <b>SSI Between 5% - 10%, 2000</b>  |                       |                          |                          |                          |
| St. Kitts and Nevis                | 1996,1997             | 1983                     | 5.3                      | 11.9                     |
| Antigua                            | 1994,95,00            | 1307                     | 6.8                      | 14.7                     |
| St. Lucia                          | 2000-2002             | 2687                     | 7.1                      | 11.0                     |
| Argentina                          | 2001-2003             | 878642                   | 7.2                      | 2.9                      |
| Martinique                         | 2000,2001             | 5440                     | 7.5                      | ...                      |
| Uruguay                            | 1999-2001             | 93978                    | 7.7                      | 7.3                      |
| Uruguay                            | 1996, 99, 2000        | 93996                    | 7.5                      | 7.3                      |
| Panama                             | 2001-2003             | 38118                    | 8.2                      | 8.8                      |
| Guadeloupe                         | 2000,2001             | 5588                     | 8.7                      | ...                      |
| Dominica                           | 1998-2000             | 1639                     | 8.8                      | 13.3                     |
| <b>SSI Between 10% - 15%, 2000</b> |                       |                          |                          |                          |
| Guatemala                          | 2001-2003             | 200622                   | 10.3                     | 12.3                     |
| Dominican Republic                 | 2000-20002            | 75833                    | 10.3                     | 14.8                     |
| Aruba                              | 1990, 95, 00          | 905                      | 11.7                     | ...                      |
| Ecuador                            | 2001-2003             | 164131                   | 12.6                     | 15.4                     |
| El Salvador                        | 2001-2003             | 86445                    | 12.8                     | 22.5                     |
| Jamaica                            | 1989-1991             | 35543                    | 12.9                     | 11.6                     |
| Grenada                            | 1985,88,89            | 2288                     | 13.1                     | ...                      |
| Brazil                             | 2000-2002             | 2890667                  | 14.0                     | 21.3                     |
| Suriname                           | 1990-1992             | 6171                     | 14.1                     | 16.1                     |
| <b>SSI Over 15%, 2000</b>          |                       |                          |                          |                          |
| Turks and Caicos Islands           | 2000-2002             | 168                      | 15.5                     | 8.1                      |
| Peru                               | 1998-2000             | 262401                   | 15.8                     | 26.8                     |
| Anguilla                           | 1995,00,01            | 178                      | 16.3                     | 6.1                      |
| Paraguay                           | 2001-2003             | 57113                    | 20.3                     | 20.7                     |
| Honduras                           | 1989, 1990            | 27617                    | 32.2                     | ...                      |
| Haiti                              | 2001-2003             | 25267                    | 32.2                     | ...                      |
| French Guiana                      | 2000, 2001            | 1310                     | 58.9                     | 13.9                     |

**Table 3**  
**List A9 of cause groups used by PAHO for collection of ICD-9 mortality data**

| A9 Code | Cause   | ICD-9 codes  | A9 Code | Cause  | ICD-9 codes                        |
|---------|---|--|---------|--|------------------------------------|
| 00      | <b>All causes</b>   |  | 07.3    | Filarial infection and dracontiasis                                    | 125                                |
| 01      | Intestinal infectious diseases  | 001-009  | 07.4    | Ancylostomiasis and necatoriasis                                       | 126                                |
| 01.1    | Cholera   | 001  | 07.5    | Other helminthiasis  | 121, 123, 124, 127-129             |
| 01.2    | Typhoid fever   | 002.0  |         |  |                                    |
| 01.3    | Paratyphoid fever   | 002.1-002.9  | 07.9    | Residual   | 100-104, 110-112, 114-118, 130-139 |
| 01.4    | Shigellosis   | 004  |         |  |                                    |
| 01.5    | Food poisoning  | 003, 005   |         |  |                                    |
| 01.6    | Amebiasis   | 006  |         |  |                                    |
| 01.7    | Other and ill-defined intestinal infections                           | 007-009  | 08      | <b>Malignant neoplasm of lip, oral cavity, and pharynx</b>             | 140-149                            |
| 02      | <b>Tuberculosis</b>   | 010-018  | 09      | Malignant neoplasm of digestive organs and peritoneum                  | 150-159                            |
| 02.1    | Tuberculosis of the respiratory system                                | 010-012  | 09.1    | Malignant neoplasm of esophagus  | 150                                |
| 02.2    | Tuberculosis of meninges and central nervous system                   | 013  | 09.2    | Malignant neoplasm of stomach  | 151                                |
| 02.3    | Tuberculosis of intestines, peritoneum, and mesenteric glands         | 014  | 09.3    | Malignant neoplasm of colon  | 153                                |
| 02.4    | Tuberculosis of bones and joints                                      | 015  | 09.4    | Malignant neoplasm of rectum, rectosigmoid junction, and anus          | 154                                |
| 02.5    | Tuberculosis of genitourinary system                                  | 016  | 09.5    | Malignant neoplasm of liver, specified as primary                      | 155.0                              |
| 02.9    | Residual  | 017,018  | 09.9    | Residual   | 152, 155.1-159                     |
| 03      | <b>Other bacterial diseases</b>                                       | 020-041  | 10      | <b>Malignant neoplasm of respiratory and intrathoracic organs</b>      | 160-165                            |
| 03.1    | Plague  | 020  | 10.1    | Malignant neoplasm of larynx   | 161                                |
| 03.2    | Leprosy   | 030  | 10.2    | Malignant neoplasm of trachea, bronchus, and lung                      | 162                                |
| 03.3    | Diphtheria  | 032  | 10.9    | Residual   | 160, 163-165                       |
| 03.4    | Whooping cough  | 033  | 11      | <b>Malignant neoplasm of bone, connective tissue, skin, and breast</b> | 170-175                            |
| 03.5    | Streptococcal sore throat, scarlatina and erysipelas                  | 034, 035   | 11.1    | Malignant neoplasm of bone and articular cartilage                     | 170                                |
| 03.6    | Meningococcal infection   | 036  | 11.2    | Malignant melanoma of skin   | 172                                |
| 03.7    | Tetanus   | 037  | 11.3    | Malignant neoplasm of the female breast                                | 174                                |
| 03.8    | Septicemia  | 038  | 11.9    | Residual   | 171, 173, 175                      |
| 03.9    | Residual  | 021-027, 031, 039-041                              | 12      | <b>Malignant neoplasm of genitourinary organs</b>                      | 179-189                            |
| 04      | <b>Viral Diseases</b>   | 045-079  | 12.1    | Malignant neoplasm of cervix uteri                                     | 180                                |
| 04.1    | Acute poliomyelitis   | 045  | 12.2    | Malignant neoplasm of placenta   | 181                                |
| 04.2    | Smallpox  | 050  | 12.3    | Malignant neoplasm of uterus, other and unspecified parts              | 179, 182                           |
| 04.3    | Measles   | 055  | 12.4    | Malignant neoplasm of prostate   | 185                                |
| 04.4    | Yellow fever  | 060  | 12.5    | Malignant neoplasm of bladder  | 188                                |
| 04.5    | Arthropod-borne encephalitis  | 062-064  | 12.9    | Residual   | 183, 184, 186, 187, 189            |
| 04.6    | Viral hepatitis   | 070  | 13      | <b>Malignant neoplasm if other and unspecified sites</b>               | 190-199                            |
| 04.7    | Rabies  | 071  | 14      | Malignant neoplasm of lymphatic and hemopoietic tissue                 | 200-208                            |
| 04.9    | Residual  | 046-049, 051-054, 056, 057, 061, 065, 066, 072-079 | 14.1    | Leukemia   | 204-208                            |
| 05      | <b>Rickettsioses and other arthropod-borne diseases</b>               | 080-088  | 14.9    | Residual   | 200-203                            |
| 05.1    | Louse-borne epidemic typhus   | 080  | 15      | <b>Benign neoplasm</b>   | 210-229                            |
| 05.2    | Other rickettsioses   | 081-083  | 16      | <b>Carcinoma in situ</b>   | 230-234                            |
| 05.3    | Malaria   | 084  | 17      | <b>Other and unspecified neoplasm</b>                                  | 235-239                            |
| 05.4    | Trypanosomiasis   | 086  | 18      | <b>Endocrine and metabolic diseases, immunity disorders</b>            | 240-259, 270-279                   |
| 05.9    | Residual  | 085, 087, 088                                      | 18.1    | Diabetes mellitus  | 250                                |
| 06      | <b>Venereal diseases</b>  | 090-099  |         |  |                                    |
| 06.1    | Syphilis  | 090-097  |         |  |                                    |
| 06.2    | Gonococcal infections   | 098  |         |  |                                    |
| 06.9    | Residual  | 099  |         |  |                                    |
| 07      | <b>Other infectious and parasitic diseases and their late effects</b> | 100-139  |         |  |                                    |
| 07.1    | Shistosomiasis  | 120  |         |  |                                    |
| 07.2    | Echnococcosis   | 122  |         |  |                                    |

**Table 3 (cont.)**  
**List A9 of cause groups used by PAHO for collection of ICD-9 mortality data**

| A9 code | Cause  | ICD-9 codes                                  | A9 code | Cause   | ICD-9 codes  |
|---------|--|--|---------|---|--|
| 18.9    | Residual   | 240-246,<br>251 -259,<br>270-279             | 32.1    | Acute bronchitis and bronchiolitis  | 466  |
| 19      | <b>Nutritional deficiencies</b>  | 260-269                                      | 32.2    | Pneumonia   | 480-486  |
| 19.1    | Kwashiorkor  | 260  | 32.3    | Influenza   | 487  |
| 19.2    | Nutritional marasmus   | 261  | 32.4    | Bronchitis, chronic and unspecified,<br>emphysema and asthma                | 490-493  |
| 19.3    | Other protein-calorie malnutrition   | 262, 263                                     | 32.9    | Residual  | 494-496,<br>500-508,<br>510-519                                  |
| 19.4    | Avitaminosis   | 264-269                                      | 33      | <b>Diseases of oral cavity, salivary glands,<br/>and jaws</b>               | 520-529  |
| 20      | <b>Diseases of blood and blood-forming<br/>organs</b>                                    | 280-289                                      | 34      | <b>Diseases of other parts of the digestive<br/>system</b>                  | 530-579  |
| 20.1    | Anemias  | 280-285                                      | 34.1    | Diseases of esophagus   | 530  |
| 20.9    | Residual   | 286-289                                      | 34.2    | Ulcer of stomach and duodenum   | 531-533  |
| 21      | <b>Mental disorders</b>  | 290-319                                      | 34.3    | Appendicitis  | 540-543  |
| 21.1    | Psychoses  | 290-299                                      | 34.4    | Abdominal hernia, and intestinal ob-<br>struction without mention of hernia | 550-553, 560   |
| 21.2    | Alcohol dependence syndrome and<br>drug dependence                                       | 303, 304                                     | 34.5    | Chronic liver disease and cirrhosis   | 571  |
| 21.3    | Mental retardation   | 317-319                                      | 34.6    | Cholelithiasis and cholecystitis  | 574-575.1  |
| 21.9    | Residual   | 300-302,<br>305-316                          | 34.9    | Residual  | 534-537,<br>555-558, 562,<br>564-570, 572,<br>573, 575.2-<br>579 |
| 22      | <b>Diseases of the nervous system</b>  | 320-359                                      | 35      | <b>Diseases of urinary system</b>   | 580-599  |
| 22.1    | Meningitis   | 320-322                                      | 35.1    | Nephritis, nephrotic syndrome, and<br>nephrosis                             | 580-589  |
| 22.2    | Multiple sclerosis   | 340  | 35.2    | Infections of kidney  | 590  |
| 22.3    | Epilepsy   | 345  | 35.9    | Residual  | 591 -599   |
| 22.9    | Residual   | 323-326,<br>330-337,<br>341 -344,<br>346-359 | 36      | <b>Diseases of male genital organs</b>                                      | 600-608  |
| 23      | <b>Disorders of the eye and adnexa</b>   | 360-379                                      | 36.1    | Hyperplasia of prostate   | 600  |
| 24      | Diseases of the ear and mastoid<br>process   | 380-389                                      | 36.9    | Residual  | 601 -608   |
| 25      | Rheumatic fever and rheumatic heart<br>disease   | 390-398                                      | 37      | <b>Diseases of female genital organs</b>                                    | 610-629  |
| 25.1    | Acute rheumatic fever  | 390-392                                      | 37.1    | Diseases of breast  | 610, 611   |
| 25.2    | Chronic rheumatic heart disease  | 393-398                                      | 37.9    | Residual  | 614-629  |
| 26      | <b>Hypertensive disease</b>  | 401-405                                      | 38      | Abortion  | 630-639  |
| 26.1    | Hypertensive heart disease   | 402, 404                                     | 38.1    | Spontaneous abortion  | 634  |
| 26.9    | Residual   | 401,403, 405                                 | 38.2    | Legally induced abortion  | 635  |
| 27      | <b>Ischemic heart disease</b>  | 410-414                                      | 38.9    | Residual  | 630-633,<br>636-639  |
| 27.1    | Acute myocardial infarction  | 410  | 39      | <b>Direct obstetric causes</b>  | 640-646,<br>651 -676   |
| 27.9    | Residual   | 411-414                                      | 39.1    | Hemorrhage of pregnancy and<br>childbirth                                   | 640, 641 , 666   |
| 28      | <b>Diseases of pulmonary circulation and<br/>other forms of heart disease</b>            | 415-429                                      | 39.2    | Toxemia of pregnancy  | 642.4-642.9,<br>643  |
| 29      | Cerebrovascular disease  | 430-438                                      | 39.3    | Complications of puerperium   | 670-676  |
| 30      | <b>Other diseases of the circulatory<br/>System</b>                                      | 440-459                                      | 39.9    | Residual  | 642.0-642.3,<br>644-646,<br>651-665,<br>667-669                  |
| 30.1    | Atherosclerosis  | 440  | 40      | <b>Indirect obstetric causes</b>  | 647, 648   |
| 30.2    | Arterial embolism, thrombosis, other<br>diseases of arteries, arterioles,<br>Capillaries | 441 -448                                     | 41      | <b>Normal delivery</b>  | 650  |
| 30.3    | Phlebitis, thrombophlebitis, venous<br>embolism and thrombosis                           | 451 -453                                     | 42      | <b>Diseases of skin and subcutaneous<br/>tissue</b>                         | 680-709  |
| 30.9    | Residual   | 454-459                                      | 43      | <b>Diseases of the musculoskeletal system<br/>and connective tissue</b>     | 710-739  |
| 31      | <b>Diseases of the upper respiratory tract</b>   | 460-465,<br>470-478                          | 44      | <b>Congenital anomalies</b>   | 740-759  |
| 31.1    | Acute infections excluding bronchitis<br>and bronchiolitis                               | 460-465                                      | 44.1    | Spina bifida and hydrocephalus  | 741 , 742.3  |
| 31.9    | Residual   | 470-478                                      |         |   |  |
| 32      | <b>Other diseases of the respiratory<br/>system</b>                                      | 466, 480-519                                 |         |   |  |

**Table 3 (cont.)**  
**List A9 of cause groups used by PAHO for collection of ICD-9 mortality data**

| A9<br>code | Cause   | ICD-9 codes                   | A9<br>code   | Cause  | ICD-9 codes  |
|------------|---|-------------------------------|--------------|--|--|
| 44.2       | Other deformities of central nervous system                         | 740, 742.0-742.2, 742.4-742.9 | 47.1<br>47.9 | Motor vehicle traffic accidents<br>Residual                          | E810-E819<br>E800-E807,<br>E820-E838,<br>E840-E848 |
| 44.3       | Congenital anomalies of heart and circulatory system                | 745-747                       | 48           | <b>Accidental poisoning</b>  | E850-E869  |
| 44.9       | Residual  | 743, 744, 748-759             | 49           | <b>Misadventures during medical care, and abnormal reactions</b>     | E870-E879  |
| 45         | <b>Certain conditions originating in the perinatal period</b>       | 760-779                       | 50           | <b>Accidental falls</b>  | E880-E888  |
| 45.1       | Maternal conditions affecting fetus or newborn                      | 760                           | 51           | <b>Accidents caused by fire and flames</b>                           | E890-E899  |
| 45.2       | Obstetric complications affecting fetus or newborn                  | 761-763                       | 52           | <b>Other accidents, including late effects</b>                       | E900-E929  |
| 45.3       | Slow fetal growth, fetal malnutrition and immaturity                | 764, 765                      | 52.1         | Accidental drowning and submersion                                   | E910   |
| 45.4       | Birth trauma  | 767                           | 52.2         | Accidents caused by machinery and cutting and piercing instruments   | E919, E920   |
| 45.5       | Hypoxia, asphyxia, other respiratory conditions of fetus or newborn | 768-770                       | 52.3         | Accidents caused by firearm missile                                  | E922   |
| 45.6       | Hemolytic disease of fetus or newborn                               | 773                           | 52.9         | Residual   | E900-E909,<br>E911-E918,<br>E921, E923-<br>E929    |
| 45.9       | Residual  | 766, 771, 772, 774-779        | 53           | <b>Drugs, medicaments causing adverse effects in therapeutic use</b> | E930-E949  |
| 46         | <b>Signs, symptoms, and ill-defined conditions</b>                  | 780-799                       | 54           | <b>Suicide and self-inflicted injury</b>                             | E950-E959  |
| 46.1       | Senility without mention of psychosis                               | 797                           | 55           | <b>Homicide and injury purposely inflicted by other persons</b>      | E960-E969  |
| 46.2       | Sudden infant death syndrome  | 798.0                         | 56           | <b>Other violence</b>  | E970-E999  |
| 46.9       | Residual  | 780-796, 798.1-799            | 56.1         | Injury undetermined whether accidentally or purposely inflicted      | E980-E989  |
| 47         | <b>Transport accidents</b>  | E800-E848                     | 56.2         | Injury resulting from operations of war                              | E990-E999  |
|            |   |                               | 56.9         | Injury due to legal intervention                                     | E970-E978  |

**Table 4**  
**List M9 of cause groups for abbreviated tabulation of ICD-9 mortality data**

| <b>M9 code</b> | <b>Cause</b>  | <b>ICD-9 codes</b>    | <b>M9 code</b> | <b>Cause</b>   | <b>ICD-9 codes</b>   |
|----------------|---|-----------------------|----------------|--|----------------------|
| 00             | All causes  |                       | 44             | Other diseases of nervous system and sense organs          | 323-389              |
| 01             | Cholera   | 001                   | 45             | Acute rheumatic fever                                      | 390-392              |
| 02             | Typhoid fever   | 002.0                 | 46             | Chronic rheumatic heart disease                            | 393-398              |
| 03             | Paratyphoid fever and food poisoning                          | 002.1-002.9, 003, 005 | 47             | Hypertensive disease                                       | 401 -405             |
| 04             | Shigellosis and amebiasis                                     | 004, 006              | 48             | Acute myocardial infarction                                | 410                  |
| 05             | Other intestinal infections                                   | 007-009               | 49             | Other ischemic heart disease                               | 411-414              |
| 06             | Tuberculosis of respiratory system                            | 010-012               | 50             | Diseases of pulmonary circulation and other heart disease  | 415-429              |
| 07             | Other tuberculosis  | 013-018               | 51             | Cerebrovascular disease                                    | 430-438              |
| 08             | Plague  | 020                   | 52             | Atherosclerosis .  | 440                  |
| 09             | Diphtheria  | 032                   | 53             | Other diseases of circulatory system                       | 441 -459             |
| 10             | Whooping cough  | 033                   | 54             | Pneumonia  | 480-486              |
| 11             | Meningococcal infection                                       | 036                   | 55             | Influenza  | 487                  |
| 12             | Tetanus   | 037                   | 56             | Bronchitis, emphysema, and asthma                          | 490-493              |
| 13             | Septicemia  | 038                   | 57             | Other diseases of respiratory system                       | 460-478, 494-519     |
| 14             | Acute poliomyelitis   | 045                   | 58             | Ulcer of stomach and duodenum                              | 531-533              |
| 15             | Smallpox  | 050                   | 59             | Appendicitis   | 540-543              |
| 16             | Measles   | 055                   | 60             | Intestinal obstruction and hernia                          | 550-553, 560         |
| 17             | Yellow fever  | 060                   | 61             | Chronic liver disease and cirrhosis                        | 571                  |
| 18             | Arthropod-borne encephalitis                                  | 062-064               | 62             | Other diseases of digestive system                         | Rest of 520-579      |
| 19             | Viral hepatitis   | 070                   | 63             | Nephritis, nephrotic syndrome, and nephrosis               | 580-589              |
| 20             | Rabies  | 071                   | 64             | Hyperplasia of prostate                                    | 600                  |
| 21             | Malaria   | 084                   | 65             | Other diseases of genitourinary system                     | 590-599, 601-629     |
| 22             | Trypanosomiasis   | 086                   | 66             | Abortion   | 630-639              |
| 23             | Syphilis  | 090-097               | 67             | Direct obstetric causes                                    | 640-646, 651-676     |
| 24             | All other infectious and parasitic diseases                   | Rest of 001 -139      | 68             | Other obstetric causes                                     | 647, 648, 650        |
| 25             | Malignant neoplasm of stomach                                 | 151                   | 69             | Congenital anomalies                                       | 740-759              |
| 26             | Malignant neoplasm of colon                                   | 153                   | 70             | Birth trauma   | 767                  |
| 27             | Malignant neoplasm of rectum, rectosigmoid junction, and anus | 154                   | 71             | Other conditions originating in the perinatal period       | 760-766, 768-779     |
| 28             | Malignant neoplasm of trachea, bronchus, and lung             | 162                   | 72             | Symptoms, signs, and ill-defined conditions                | 780-799              |
| 29             | Malignant neoplasm of female breast                           | 174                   | 73             | All other diseases   | 680-739              |
| 30             | Malignant neoplasm of cervix uteri                            | 180                   | 74             | Motor vehicle traffic accidents                            | E810-E819            |
| 31             | Leukemia  | 204-208               | 75             | Accidental falls   | E880-E888            |
| 32             | Malignant neoplasm of other and unspecified sites             | Rest of 140- 208      | 76             | All other accidents  | Rest of E800-E949    |
| 33             | Benign neoplasms, carcinoma in situ, and other neoplasms      | 210-239               | 77             | Suicide  | E950-E959            |
| 34             | Diabetes mellitus   | 250                   | 78             | Homicide   | E960-E969            |
| 35             | Kwashiorkor   | 260                   | 79             | Injury unknown whether accidentally or purposely inflicted | E980-E989            |
| 36             | Nutritional marasmus  | 261                   | 80             | Injury from operations of war, legal intervention          | E970-E978, E990-E999 |
| 37             | Other protein-calorie malnutrition                            | 262, 263              |                |  |                      |
| 38             | Avitaminosis  | 264-269               |                |  |                      |
| 39             | Other endocrine and metabolic diseases                        | Rest of 240 - 279     |                |  |                      |
| 40             | Anemias   | 280-285               |                |  |                      |
| 41             | Other diseases of blood and blood-forming organs              | 286-289               |                |  |                      |
| 42             | Mental disorders  | 290-319               |                |  |                      |
| 43             | Meningitis  | 320-322               |                |  |                      |

**Table 5**  
**PAHO 6/61 List of Mortality Cause Groups for ICD-9**  
**(see Chapters II and III)**

**0.0 Symptoms, signs and ill-defined conditions (780-799)**

**1.00 Communicable diseases (001-139, 320-322, 460-466, 480-487)**

- 1.01 Intestinal infectious diseases (001-009)
- 1.02 Tuberculosis (010-018)
- 1.03 Certain diseases preventable by immunization (032, 033, 037, 045, 055)
- 1.04 Certain vector-borne diseases (020, 060, 062-064, 071, 080-088)
- 1.05 Septicemia (038)
- 1.06 Syphilis and other venereal diseases (090-099)
- 1.07 Meningitis (320-322)
- 1.08 Acute respiratory infections (460-466, 480-487)
- 1.09 Other infectious and parasitic diseases (remainder of 000-139)

**2.00 Neoplasms (140-239)**

- 2.01 Malignant neoplasm of stomach (151)
- 2.02 Malignant neoplasm of colon (153)
- 2.03 Malignant neoplasm of digestive organs and peritoneum, other than stomach and colon (150, 152, 154-159)
- 2.04 Malignant neoplasm of trachea, bronchus and lung (162)
- 2.05 Malignant neoplasm of respiratory and intrathoracic organs, except trachea, bronchus and lung (160, 161, 163-165)
- 2.06 Malignant neoplasm of female breast (174)
- 2.07 Malignant neoplasm of cervix uteri, and uterus, body and unspecified parts (179, 180, 182)
- 2.08 Malignant neoplasm of prostate (185)
- 2.09 Malignant neoplasm of bladder and other genitourinary organs (183, 184, 186-189)
- 2.10 Malignant neoplasm of lymphatic and hematopoietic tissue (200-208)
- 2.11 Other malignant neoplasms (remainder of 140-208)
- 2.12 Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239)

**3.00 Diseases of circulatory system (390-459)**

- 3.01 Acute rheumatic fever and chronic rheumatic heart disease (390-398)
- 3.02 Hypertensive disease (401-405)
- 3.03 Ischemic heart disease (410-414)
- 3.04 Diseases of pulmonary circulation and other forms of heart disease (415-429)
- 3.05 Cerebrovascular disease (430-438)
- 3.06 Atherosclerosis (440)
- 3.07 Other diseases of circulatory system (441-459)

**4.00 Certain conditions originating in perinatal period (760-779)**

- 4.01 Maternal conditions affecting fetus or newborn (760)
- 4.02 Obstetric complications affecting fetus or newborn, and birth trauma (761-763, 767)
- 4.03 Slow fetal growth, fetal malnutrition and immaturity (764, 765)
- 4.04 Hypoxia, birth asphyxia and other respiratory conditions (768-770)
- 4.05 Hemolytic disease of fetus or newborn (773)
- 4.06 Other conditions originating in perinatal period (766, 771, 772, 774-779)

**Table 5 (cont.)**  
**PAHO 6/61 List of Mortality Cause Groups for ICD-9**  
**(see Chapters II and III)**

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**5.00 External causes of injury and poisoning (E800-E999)**

- 5.01 Motor vehicle traffic accidents (E810-E819)
- 5.02 Other transport accidents (E800-E807, E820-E838, E840-E848)
- 5.03 Accidental poisoning (E850-E869)
- 5.04 Misadventures during medical care, abnormal reactions and late complications, and drugs and medicaments causing adverse effects in therapeutic use (E870-E879, E930-E949)
- 5.05 Accidental falls (E880-E888)
- 5.06 Accidents caused by fire and flames (E890-E899)
- 5.07 Accidental drowning and submersion (E910)
- 5.08 Accidents caused by machinery, and by cutting and piercing instruments (E919, E920)
- 5.09 Accidents caused by firearm missile (E922)
- 5.10 Other accidents, including late effects (E900-E909, E911-E918, E921, E923-E929)
- 5.11 Suicide and self-inflicted injury (E950-E959)
- 5.12 Homicide and injury purposely inflicted by other persons (E960-E969), injury resulting from operations of war (E990-E999), and injury due to legal intervention (E970-E978)
- 5.13 Injury undetermined whether accidentally or purposely inflicted (E980-E989)

**6.00 All other diseases (remainder of 001-779)**

- 6.01 Diabetes mellitus (250)
- 6.02 Nutritional deficiencies and anemias (260-269, 280-285)
- 6.03 Mental disorders (290-319)
- 6.04 Diseases of nervous system, other than meningitis (323-359)
- 6.05 Bronchitis, chronic and unspecified; emphysema and asthma (490-493)
- 6.06 Other chronic pulmonary disease (494-496), pulmonary diseases due to external agents (500-508), and other diseases of respiratory system (510-519)
- 6.07 Appendicitis, hernia of abdominal cavity, and intestinal obstruction without mention of hernia (540-543, 550-553, 560)
- 6.08 Chronic liver disease and cirrhosis (571)
- 6.09 Diseases of other parts of digestive system (remainder of 530-579)
- 6.10 Diseases of urinary system (580-599)
- 6.11 Hyperplasia of prostate (600)
- 6.12 Complications of pregnancy, childbirth and the puerperium (630-676)
- 6.13 Congenital anomalies (740-759)
- 6.14 Residual (remainder of 001-779)

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**Note:** This list includes all ICD-9 categories, whether or not eligible to be coded as underlying causes of death.



**Table 6**  
**PAHO 6/67 List of Mortality Cause Groups for ICD-10**  
**(see Chapters IV and V)**

|             |   |
|-------------|---|
| <b>0.00</b> | <b>Symptoms, signs and ill-defined conditions (R00-R99)</b>   |
| <b>1.00</b> | <b>Communicable diseases (A00-B99, G00-G03, J00-J22)</b>  |
| 1.01        | Intestinal infectious diseases (A00-A09)  |
| 1.02        | Tuberculosis (A15-A19)  |
| 1.03        | Certain vector-borne diseases and rabies (A20, A44, A75-A79, A82-A84, A85.2, A90-A98, B50-57)   |
| 1.04        | Certain diseases preventable by immunization (A33-A37, A80, B05, B06, B16, B17.0, B18.0-B18.1, B26)   |
| 1.05        | Meningitis (A39, A87, G00-G03)  |
| 1.06        | Septicemia, except neonatal (A40-A41)   |
| 1.07        | HIV disease (AIDS) (B20-B24)  |
| 1.08        | Acute respiratory infections (J00-J22)  |
| 1.09        | Other infectious and parasitic diseases (remainder of A00-B99, i.e. A21-A32, A38, A42-A43, A46-A74, A81, A85.0-A85.1, A85.8, A86, A88-A89, A99-B04, B07-B15, B17.1-B17.8, B18.2-B19.9, B25, B27-B49, B58-B99) |
| <b>2.00</b> | <b>Neoplasms (C00-D48)</b>  |
| 2.01        | Malignant neoplasm of stomach (C16)   |
| 2.02        | Malignant neoplasm of colon and rectosigmoid junction (C18-C19)   |
| 2.03        | Malignant neoplasm of digestive organs and peritoneum, except stomach and colon (C15, C17, C20-C26, C48)  |
| 2.04        | Malignant neoplasm of trachea, bronchus and lung (C33-C34)  |
| 2.05        | Malignant neoplasm of respiratory and intrathoracic organs, except trachea, bronchus and lung (C30-C32, C37-C39)  |
| 2.06        | Malignant neoplasm of female breast (C50 <u>in women</u> )  |
| 2.07        | Malignant neoplasm of cervix uteri (C53)  |
| 2.08        | Malignant neoplasm of corpus uteri (C54)  |
| 2.09        | Malignant neoplasm of uterus, part unspecified (C55)  |
| 2.10        | Malignant neoplasm of prostate (C61)  |
| 2.11        | Malignant neoplasm of other genitourinary organs (C51-C52, C56-C57, C60, C62-C68)   |
| 2.12        | Leukemia (C91-C95)  |
| 2.13        | Malignant neoplasm of lymphoid, other hematopoietic and related tissue (C81-C90, C96)   |
| 2.14        | Malignant neoplasm of other and unspecified sites (remainder of C00-C97, i.e. C00-C14, C40-C47, C49, C50 <u>in men</u> , C58, C69-C80, C97)   |
| 2.15        | Carcinoma in situ, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)  |
| <b>3.00</b> | <b>Diseases of the circulatory system (I00-I99)</b>   |
| 3.01        | Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09)  |
| 3.02        | Hypertensive diseases (I10-I15)   |
| 3.03        | Ischemic heart diseases (I20-I25)   |
| 3.04        | Pulmonary heart disease, diseases of pulmonary circulation and other forms of heart disease (I26-I45, I47-I49, I51)   |
| 3.05        | Cardiac arrest (I46)  |
| 3.06        | Heart failure (I50)   |
| 3.07        | Cerebrovascular diseases (I60-I69)  |
| 3.08        | Atherosclerosis (I70)   |
| 3.09        | All other diseases of the circulatory system (I71-I99)  |
| <b>4.00</b> | <b>Certain conditions originating in the perinatal period (P00- P96)</b>  |
| 4.01        | Fetus and newborn affected by certain maternal conditions (P00, P04)  |
| 4.02        | Fetus and newborn affected by obstetric complications, birth trauma (P01-P03, P10-P15)  |
| 4.03        | Slow fetal growth, fetal malnutrition, short gestation, low birth weight (P05, P07)   |
| 4.04        | Respiratory disorders specific to the perinatal period (P20-P28)  |
| 4.05        | Bacterial sepsis of newborn (P36)   |
| 4.06        | Remainder of certain conditions originating in the perinatal period (rest of P00-P96, i.e. P08, P29, P35, P37-P96)  |

**Table 6 (cont.)**  
**PAHO 6/67 List of Mortality Cause Groups for ICD-10**  
**(see Chapters IV and V)**

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**5.00 External causes (V01-Y89)**

- 5.01 Land transport accidents (V01-V89)
- 5.02 Other and unspecified transport accidents (V90-V99)
- 5.03 Falls (W00-W19)
- 5.04 Accidents caused by firearm discharge (W32-W34)
- 5.05 Accidental drowning and submersion (W65-W74)
- 5.06 Accidental threats to breathing (W75-W84)
- 5.07 Exposure to electric current (W85-W87)
- 5.08 Exposure to smoke, fire and flames (X00-X09)
- 5.09 Accidental poisoning by and exposure to noxious substances (X40-X49)
- 5.10 All other accidents (W20-W31, W35-W64, W88-W99, X10-X39, X50-X59, Y40-Y84)
- 5.11 Intentional self-harm (suicide) (X60-X84)
- 5.12 Assault (homicide) (X85-Y09)
- 5.13 Event of undetermined intent (Y10-Y34)
- 5.14 All other external causes (Y35-Y36, Y85-Y89)

**6.00 All other diseases (D50-D89, E00-E90, F00-F99, G04-G98, H00-H59, H60-H95, J30-J98, K00-K93, L00-L99, M00-M99, N00-N99, O00-O99, Q00-Q99)**

- 6.01 Diabetes mellitus (E10-E14)
  - 6.02 Nutritional deficiencies and nutritional anemia (E40-E64, D50-D53)
  - 6.03 Mental and behavioral disorders (F00-F99)
  - 6.04 Diseases of the nervous system, except meningitis (G04-G99)
  - 6.05 Chronic lower respiratory diseases (J40-J47)
  - 6.06 Remainder of diseases of the respiratory system (rest of J00-J99, i.e. J30-J39, J60-J98)
  - 6.07 Appendicitis, hernia of abdominal cavity and intestinal obstruction (K35-K46, K56)
  - 6.08 Cirrhosis and certain other chronic diseases of liver (K70, K73, K74, K76)
  - 6.09 All other diseases of the digestive system (rest of K00-K93, i.e. K00-K31, K50-K55, K57-K66, K71, K72, K75, K80-K93)
  - 6.10 Diseases of the urinary system (N00-N39)
  - 6.11 Hyperplasia of prostate (N40)
  - 6.12 Pregnancy, childbirth and the puerperium (O00-O99)
  - 6.13 Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)
  - 6.14 Remainder of all other diseases (rest of A00-Q99, i.e. D55-D89, E00-E07, E15-E34, E65-E90, H00-H59, H60-H95, L00-L99, M00-M99, N41-N99)
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Table 7

Detailed mortality data available in the Pan American Health Organization data bases from 1982-2003, as of 30 November 2005

| Country                      | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996  | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  |   |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|---|
| Anguilla                     | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -     | -     | -     | -     | 10_01 | 10_01 | -     | -     |   |
| Antigua and Barbuda          | -    | -    | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | -     | -     | -     | -     | 10_01 | -     | -     | - |
| Argentina                    | 9A21 | 9A21 | 9A21 | 9A21 | 9A21 | 9A21 | 9A21 | 9A21 | 9A21 | 9A21 | 9A21 | 9A01 | 9A01 | 9A01 | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Bahamas                      | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A04 | -    | -    | -    | -    | -    | 9A02 | 9A02 | 9A02 | 9A02  | 9A02  | 9A21  | 10_01 | 10_01 | -     | -     | -     |   |
| Barbados                     | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -     | -     | -     | -     | 10_01 | 10_01 | -     | -     |   |
| Belize                       | 9A29 | 9A01 | 9A01 | -    | 9A01 | 9A01 | -    | 9A01 | 9A01 | 9A01 | -    | 9A01 | 9A01 | 9A01 | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     | -     |   |
| Bermuda                      | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | 10_02 | 10_02 | 10_02 | 10_02 | 10_01 | -     | -     | -     |   |
| Bolivia                      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     | -     |   |
| Brazil                       | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Canada                       | 9A04 | 9A04 | 9A04 | 9A21 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 9A01  | 9A01  | 9A01  | 10_01 | 10_04 | 10_04 | -     |   |
| Cayman Islands               | 9A26 | 9A26 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 9A01  | 10_01 | 10_01 | 10_01 | -     | -     | -     |   |
| Chile                        | 9A01 | 9A01 | 9A04 | 9A04 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Colombia                     | -    | -    | 9A01 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56 | 9A56  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     | -     |   |
| Costa Rica                   | 9A07 | 9A07 | 9A51 | 9A07 | 9A07 | 9A07 | 9A07 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Cuba                         | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 9A01  | 9A01  | 9A01  | 9A01  | 10_01 | 10_01 | 10_01 |   |
| Dominica                     | 9A01 | 9A01 | 9A07 | 9A07 | 9A07 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 9A01  | 9A01  | 9A01  | 9A01  | -     | -     | -     |   |
| Dominican Republic           | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | 9A01 | 9A01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     |   |
| Ecuador                      | 9A23 | 9A23 | 9A01 | 9A01 | 9A01 | 9A01 | 9A22 | 9A23 | 9A23 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| El Salvador                  | 9A02 | 9A02 | 9A02 | -    | -    | -    | -    | -    | 9A02 | 9A01 | 9A01 | 9A01 | -    | 9A01 | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| French Guiana                | 9M02 | 9M02 | 9M02 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 10_01 | 10_01 | -     | -     |   |
| Grenada                      | -    | -    | 9A06 | 9A01 | -    | -    | 9A01 | 9A18 | 9A18 | 9A18 | 9A18 | 9A18 | 9A29 | 9A29 | 9A01  | -     | -     | -     | -     | -     | -     | -     |   |
| Guadeloupe                   | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 10_01 | 10_01 | -     | -     |   |
| Guatemala                    | -    | -    | 9A21 | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 9A01  | 9A01  | 9A01  | 9A01  | 9A01  | 9A01  | 9A01  |   |
| Guyana                       | -    | -    | 9A01 | -    | -    | -    | 9A01 | 9A01 | 9A01 | -    | -    | 9A01 | 9A01 | 9A01 | 9A01  | -     | -     | -     | 10_01 | 10_01 | -     | -     |   |
| Haiti                        | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | 10_01 | -     | 10_01 | -     | 10_01 | 10_01 | 10_01 |   |
| Honduras                     | 9A06 | 9A06 | -    | -    | -    | 9A01 | 9A01 | 9A01 | 9A01 | -    | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     | -     |   |
| Jamaica                      | 9A01 | 9A01 | 9A40 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     | -     |   |
| Martinique                   | 9A30 | -    | -    | 9A01 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | -     | -     | -     | 10_01 | 10_01 | -     | -     |   |
| Mexico                       | 9A02 | 9A02 | 9A01 | 9A04 | 9A04 | 9A01 | 9A01 | 9A54 | 9A54 | 9A54 | 9A01 | 9A01 | 9A54 | 9A54 | 9A54  | 9A54  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Montserrat                   | -    | -    | -    | -    | -    | -    | -    | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | -     | -     | -     | -     | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Netherlands Antilles         | -    | -    | -    | -    | -    | -    | -    | -    | 9L15 | -    | -    | -    | -    | 9L15 | -     | -     | -     | -     | 9L15  | -     | -     | -     |   |
| Nicaragua                    | -    | -    | -    | -    | -    | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     |   |
| Panama                       | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | -    | -    | -    | -    | -    | 9A01  | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Paraguay                     | 9A38 | 9A43 | 9A43 | 9A43 | 9A53 | 9A53 | 9A38 | 9A38 | 9A38 | 9A38 | -    | -    | 9A43 | 9A01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 |   |
| Peru                         | 9A02 | 9A02 | -    | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | 9A01 | 9A01 | 9A01  | 9A01  | 9A01  | 10_01 | 10_01 | -     | -     | -     |   |
| Puerto Rico                  | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 9A01  | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | -     |   |
| Saint Lucia                  | 9A26 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     |   |
| St. Kitts and Nevis          | 9A12 | 9A12 | 9A12 | 9A12 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 10_01 | 10_01 | -     | -     | -     | -     | -     | -     |   |
| St. Vincent & The Grenadines | 9A09 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | -    | -    | -    | -    | -    | -    | 9A01 | 9A01  | 9A01  | 9A01  | 9A01  | 10_01 | -     | -     | -     |   |
| Suriname                     | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | -    | -    | -     | -     | -     | -     | -     | -     | -     | -     |   |
| Trinidad and Tobago          | 9A02 | 9A02 | 9A02 | 9A01 | 9A02 | 9A02 | 9A02 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A02  | 9A02  | 9A02  | 10_01 | 10_01 | -     | -     | -     |   |
| Turks & Caicos Islands       | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A01 | 9A01 | 9A01 | 9A01 | 9A02 | 9A01 | 9A02 | 9A02 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     | -     | -     |   |
| United States                | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01  | 9A01  | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | -     |   |
| Uruguay                      | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | -    | -    | 9A01 | 9A01 | 9A01 | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     | -     |   |
| Venezuela                    | 9A02 | 9A02 | -    | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | -    | 9A01 | 9A01 | 9A01 | -    | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | 10_01 | -     |   |
| Virgin Islands (UK)          | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A01 | 9A02 | 9A02 | 9A02 | 9A02 | 9A02 | 9A01 | 10_01 | 10_01 | 10_01 | -     | -     | -     | -     |       |   |
| Virgin Islands (US)          | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -     | 9A01  | 9A01  | 10_01 | 10_01 | 10_01 | 10_01 | -     |   |

Legend: - Data not available; 9L PAHO 6/61 List  
See Technical Notes

**Table 8**  
**PAHO/WHO Ranking List to Determine Leading Causes of Death in ICD-9**

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**All deaths** (001-799, E800-E999)

|        |   |
|--------|---|
| LC-01  | Intestinal infectious diseases (001-009)  |
| LC-02  | Tuberculosis (010-018)  |
| LC-03  | * Vector-borne diseases and rabies (020, 088.0, 080-083, 071,060-066,084-086)                                 |
| LC-04x | * Vaccine-preventable diseases<br>(037,032,033,045,052,055,056,070.0,070.1,070.2,070.3,070.6,070.9,072,771.3) |
| LC-05  | Meningitis (036,047,049,320,322)  |
| LC-06  | Septicaemia (038)   |
| LC-07x | Human immunodeficiency virus [HIV] disease [279.1 (279.5, 279.6 or 042-044)]                                  |
| LC-08  | Malignant neoplasm of oesophagus (150)  |
| LC-09  | Malignant neoplasm of stomach (151)   |
| LC-10  | Malignant neoplasm of colon, sigmoid, rectum and anus (153-154)   |
| LC-11  | Malignant neoplasm of liver and intrahepatic bile ducts (155)   |
| LC-12  | Malignant neoplasm of gallbladder and other parts of biliary tract (156)                                      |
| LC-13  | Malignant neoplasm of pancreas (157)  |
| LC-14  | Malignant neoplasm of larynx (161)  |
| LC-15  | Malignant neoplasm of trachea, bronchus and lung (162)  |
| LC-16  | Melanoma and other malignant neoplasms of skin (172-173)  |
| LC-17  | Malignant neoplasms of female breast (174)  |
| LC-18  | * Malignant neoplasm of uterus (179-180, 182)   |
| LC-19  | Malignant neoplasm of ovary (183)   |
| LC-20  | Malignant neoplasm of prostate (185)  |
| LC-21  | Malignant neoplasm of kidney, except renal pelvis (189.0)   |
| LC-22  | Malignant neoplasm of bladder (188)   |
| LC-23  | Malignant neoplasm of brain (191)   |
| LC-24  | Malignant neoplasms of lymphoid, haematopoietic and related tissue (200-208)                                  |
| LC-25  | Benign neoplasms, in situ and uncertain behaviour (210-239)   |
| LC-26  | Diabetes (250)  |
| LC-27  | Malnutrition and nutritional anaemias (260-269,280-281)   |
| LC-28  | Disorders of fluid, electrolyte and acid-based balance [dehydration] (276)                                    |
| LC-29  | * Dementia and Alzheimer's disease (290, 331.0)   |
| LC-30  | Mental and behavioural disorders due to psychoactive substance use (291-294,303-305)                          |
| LC-31  | Parkinson's disease (332.0)   |
| LC-32  | Epilepsy and status epilepticus (345)   |
| LC-33  | Chronic rheumatic heart diseases (393-398)  |
| LC-34  | Hypertensive diseases (401-405)   |
| LC-35  | * Ischaemic heart diseases (410-414)  |
| LC-36  | Pulmonary heart disease and diseases of pulmonary circulation (415-417)                                       |
| LC-37  | Nonrheumatic valve disorders (424)  |
| LC-38  | Cardiomyopathy (425)  |
| LC-39  | Cardiac arrest (427.5)  |
| LC-40  | Cardiac arrhythmias (427.0-427.4, 427.6-427.9)  |
| LC-41  | Heart failure and complications and ill-defined heart disease (428-429)                                       |
| LC-42  | Cerebrovascular diseases (430-438)  |
| LC-43  | Atherosclerosis (440)   |
| LC-44  | Aortic aneurysm and dissection (441)  |
| LC-45  | Acute respiratory diseases other than influenza and pneumonia (460-466)                                       |
| LC-46  | Influenza and Pneumonia (480-487)   |
| LC-47  | Chronic lower respiratory diseases (490-496)  |
| LC-48  | Pulmonary oedema and other interstitial pulmonary diseases (518)  |
| LC-49x | Respiratory failure (799.1)   |
| LC-50  | Appendicitis, hernia and intestinal obstruction (540-553, 560)  |
| LC-51  | * Cirrhosis and other diseases of liver (570-573)   |
| LC-52x | * Diseases of the musculoskeletal system and connective tissue (274, 446, 710-739)                            |
| LC-53  | Diseases of the urinary system (580-599)  |
| LC-54x | * Pregnancy, childbirth and the puerperium (630-676)  |
| LC-55x | * Certain conditions originating in the perinatal period (760-779)  |
| LC-56x | * Congenital malformations, deformations and chromosomal abnormalities (740-759)                              |

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\* Causal categories that can be expanded when appearing among the leading causes:

x - Not an exact equivalence between ICD-9 and ICD-10.

**Table 8 (Cont.)**  
**PAHO/WHO Ranking List to Determine Leading Causes of Death in ICD-9**

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|       |  |
|-------|--|
| LC-57 | Land transport accidents (E800-E829)                 |
| LC-58 | Accidental falls (E880-E886, E888)                   |
| LC-59 | Non intentional firearm discharge (E922)             |
| LC-60 | Accidental drowning and submersion (E910)            |
| LC-61 | Accidental threats to breathing (E911-E913)          |
| LC-62 | Accidental poisoning (E850-E869)                     |
| LC-63 | Intentional self-harm [suicide] (E950-E959)          |
| LC-64 | Assault [homicide] (E960-E969)                       |
| LC-65 | Event of undetermined intent (E980-E989)             |
| LC-88 | Remainder (all the rest)                             |
| LC-99 | Symptoms, signs and ill-defined conditions (780-799) |

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**\* Causal categories that can be expanded when appearing among the leading causes:**

|        |  |
|--------|--|
| LC-03  | Vector borne diseases and rabies (a)   |
| LC-04x | Vaccine-preventable diseases (a)   |
| LC-18  | Malignant neoplasm of uterus (179-180, 182)                                    |
|        | Cervix (180)   |
|        | Corpus (182)   |
|        | Unspecified part (179)   |
| LC-29  | Dementia and Alzheimer's disease (290, 331.0)                                  |
|        | Dementia (290)   |
|        | Alzheimer's disease (331.0)  |
| LC-35  | Ischaemic heart disease (410-414)  |
|        | Acute (410-413)  |
|        | Chronic (414)  |
| LC51   | Cirrhosis and other diseases of liver (570-573)                                |
|        | Alcoholic liver disease (571.0-571.3)  |
|        | Hepatic failure (570)  |
|        | Fibrosis and cirrhosis of liver (571.5-571.9)                                  |
| LC-52x | Diseases of musculoskeletal system and connective tissue (274, 446, 710-739)   |
|        | x- Inflammatory polyarthropathies (274, 712, 714, 716)                         |
|        | x- Arthrosis (715)   |
|        | Polyarteritis nodosa and other necrotizing vasculopathies (446)                |
|        | Systemic lupus erythematosus (710.0)   |
|        | Systemic Sclerosis (710.1)   |
|        | x- Disorders of bone density and structure (733)                               |
|        | Osteomyelitis (730.0-730.2)  |
| LC-54x | Pregnancy, childbirth and puerperium 630-676)                                  |
|        | Pregnancy with abortive outcome (630-638)                                      |
|        | Eclampsia and other hypertensive disorders (642)                               |
|        | x- Complications of labour and delivery (660-669)                              |
|        | Complications predominantly related to the puerperium (670-676)                |
| LC-55x | Certain conditions originating in the perinatal period (760-779)               |
|        | Birth trauma and other obstetric causes (761-763,767)                          |
|        | Immaturity and related disorders (764-765)                                     |
|        | Respiratory disorders specific to the perinatal period (768-770)               |
|        | x- Bacterial sepsis of newborn (771.8)   |
|        | Haemorrhagic and haematological disorders (772-774,776)                        |
| LC-56x | Congenital malformations, deformations and chromosomal abnormalities (740-759) |
|        | Anencephaly and other malformations of the nervous system (740-742)            |
|        | Congenital malformations of heart (745-746)                                    |
|        | Congenital malformations of respiratory system (748)                           |
|        | Congenital malformations and deformations of musculoskeletal system (754-756)  |
|        | Chromosomal abnormalities (758)  |

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(a) Categories LC-03 and LC-04 can be expanded to show specific diseases within the category.  
x - Not an exact equivalence between ICD-9 and ICD-10.

**Table 9**  
**Ranking List to Determine Leading Causes of Death in ICD-10**

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**All deaths (A00-R99, V01-Y89)**

|       |   |
|-------|---|
| LC-01 | Intestinal infectious diseases (A00-A09)  |
| LC-02 | Tuberculosis (A15-A19)  |
| LC-03 | * Vector-borne diseases and rabies (A20, A44, A75-A79, A82-A84, A852, A90-A96, A98.0-A98.2, A98.8, B50-B57)     |
| LC-04 | * Vaccine-preventable diseases<br>(A33-A37, A80, B01, B05, B06, B15, B16, B17.0, B18.0, B18.1, B18.9, B19, B26) |
| LC-05 | Meningitis (A39, A87, G00-G03)  |
| LC-06 | Septicaemia (A40-A41)   |
| LC-07 | Human immunodeficiency virus [HIV] disease (B20-B24)  |
| LC-08 | Malignant neoplasm of oesophagus (C15)  |
| LC-09 | Malignant neoplasm of stomach (C16)   |
| LC-10 | Malignant neoplasm of colon, sigmoid, rectum and anus (C18-C21)   |
| LC-11 | Malignant neoplasm of liver and intrahepatic bile ducts (C22)   |
| LC-12 | Malignant neoplasm of gallbladder and other parts of biliary tract (C23, C24)                                   |
| LC-13 | Malignant neoplasm of pancreas (C25)  |
| LC-14 | Malignant neoplasm of larynx (C32)  |
| LC-15 | Malignant neoplasm of trachea, bronchus and lung (C33, C34)   |
| LC-16 | Melanoma and other malignant neoplasms of skin (C43, C44)   |
| LC-17 | Malignant neoplasms of female breast (C50)  |
| LC-18 | * Malignant neoplasm of uterus (C53-C55)  |
| LC-19 | Malignant neoplasm of ovary (C56)   |
| LC-20 | Malignant neoplasm of prostate (C61)  |
| LC-21 | Malignant neoplasm of kidney, except renal pelvis (C64)   |
| LC-22 | Malignant neoplasm of bladder (C67)   |
| LC-23 | Malignant neoplasm of brain (C71)   |
| LC-24 | Malignant neoplasms of lymphoid, haematopoietic and related tissue (C81-C96)                                    |
| LC-25 | Benign neoplasms, in situ and uncertain behaviour (D00-D48)   |
| LC-26 | Diabetes (E10-E14)  |
| LC-27 | Malnutrition and nutritional anaemias (D50-D53, E40-E64)  |
| LC-28 | Disorders of fluid, electrolyte and acid-based balance (dehydration) (E86-E87)                                  |
| LC-29 | * Dementia and Alzheimer's disease (F01, F03, G30)  |
| LC-30 | Mental and behavioural disorders due to psychoactive substance use (F10-F19)                                    |
| LC-31 | Parkinson's disease (G20)   |
| LC-32 | Epilepsy and status epilepticus (G40, G41)  |
| LC-33 | Chronic rheumatic heart diseases (I05-I09)  |
| LC-34 | Hypertensive diseases (I10-I15)   |
| LC-35 | * Ischaemic heart diseases (I20-I25)  |
| LC-36 | Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)   |
| LC-37 | Nonrheumatic valve disorders (I34-I38)  |
| LC-38 | Cardiomyopathy (I42)  |
| LC-39 | Cardiac arrest (I46)  |
| LC-40 | Cardiac arrhythmias (I47-I49)   |
| LC-41 | Heart failure and complications and ill-defined heart disease (I50-I51)   |
| LC-42 | Cerebrovascular diseases (I60-I69)  |
| LC-43 | Atherosclerosis (I70)   |
| LC-44 | Aortic aneurysm and dissection (I71)  |
| LC-45 | Acute respiratory diseases other than influenza and pneumonia (J00-J06, J20-J22)                                |
| LC-46 | Influenza and Pneumonia (J10-J18)   |
| LC-47 | Chronic lower respiratory diseases (J40-J47)  |
| LC-48 | Pulmonary oedema and other interstitial pulmonary diseases (J80-J84)  |
| LC-49 | Respiratory failure (J96)   |
| LC-50 | Appendicitis, hernia and intestinal obstruction (K35-K46, K56)  |
| LC-51 | * Cirrhosis and other diseases of liver (K70-K76)   |
| LC-52 | * Diseases of the musculoskeletal system and connective tissue (M00-M99)  |
| LC-53 | Diseases of the urinary system (N00-N39)  |
| LC-54 | * Pregnancy, childbirth and the puerperium (O00-O99)  |
| LC-55 | * Certain conditions originating in the perinatal period (P00-P96)  |
| LC-56 | * Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)                                |
| LC-57 | Land transport accidents (V01-V89)  |

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\* Causal categories that can be expanded when appearing among the leading causes:

**Table 9 (Cont.)**  
**Ranking List to Determine Leading Causes of Death in ICD-10**

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|       |   |
|-------|---|
| LC-58 | Accidental falls (W00-W19)                                  |
| LC-59 | Non intentional firearm discharge (W32-W34)                 |
| LC-60 | Accidental drowning and submersion (W65-W74)                |
| LC-61 | Accidental threats to breathing (W75-W84)                   |
| LC-62 | Accidental poisoning (X40-X49)                              |
| LC-63 | Intentional self-harm [suicide] (X60-X84)                   |
| LC-64 | Assault [homicide] (X85-Y09)                                |
| LC-65 | Event of undetermined intent (Y10-Y34)                      |
| LC-88 | <b>Remainder (all the rest)</b>                             |
| LC-99 | <b>Symptoms, signs and ill-defined conditions (R00-R99)</b> |

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**\* Causal categories that can be expanded when appearing among the leading causes:**

|       |  |
|-------|--|
| LC-03 | Vector borne diseases and rabies (a)   |
| LC-04 | Vaccine-preventable diseases (a)   |
| LC-18 | Malignant neoplasm of uterus (C53-C55)   |
|       | Cervix (C53)   |
|       | Corpus (C54)   |
|       | Unspecified part (C55)   |
| LC-29 | Dementia and Alzheimer's disease (F01, F03, G30)                               |
|       | Dementia (F01, F03)  |
|       | Alzheimer's disease (G30)  |
| LC-35 | Ischaemic heart disease (I20-I25)  |
|       | Acute (I20-I24)  |
|       | Chronic (I25)  |
| LC51  | Cirrhosis and other diseases of liver (K70-K76)                                |
|       | Alcoholic liver disease (K70)  |
|       | Hepatic failure (K72)  |
|       | Fibrosis and cirrhosis of liver (K74)  |
| LC-52 | Diseases of musculoskeletal system and connective tissue (M00-M99)             |
|       | Inflammatory polyarthropathies (M05-M14)                                       |
|       | Arthrosis (M15-M19)  |
|       | Polyarteritis nodosa and other necrotizing vasculopathies (M30-M31)            |
|       | Systemic lupus erythematosus (M32)   |
|       | Systemic Sclerosis (M34)   |
|       | Disorders of bone density and structure (M80-M85)                              |
|       | Osteomyelitis (M86)  |
| LC-54 | Pregnancy, childbirth and puerperium (O00-O99)                                 |
|       | Pregnancy with abortive outcome (O00-O07)                                      |
|       | Eclampsia and other hypertensive disorders (O10-O11, O13-O16)                  |
|       | Complications of labour and delivery (O60-O75)                                 |
|       | Complications predominantly related to the puerperium (O85-O92)                |
| LC-55 | Certain conditions originating in the perinatal period (P00-P96)               |
|       | Birth trauma and other obstetric causes (P01-P03, P10-P15)                     |
|       | Immaturity and related disorders (P05-P07)                                     |
|       | Respiratory disorders specific to the perinatal period (P20-P28)               |
|       | Bacterial sepsis of newborn (P36)  |
|       | Haemorrhagic and haematological disorders (P50-P61)                            |
| LC-56 | Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) |
|       | Anencephaly and other malformations of the nervous system (Q00-Q07)            |
|       | Congenital malformations of heart (Q20-Q24)                                    |
|       | Congenital malformations of respiratory system (Q30-Q34)                       |
|       | Congenital malformations and deformations of musculoskeletal system (Q65-Q79)  |
|       | Chromosomal abnormalities (Q90-Q99)  |

(a) Categories LC-03 and LC-04 can be expanded to show specific diseases within the category