

# **SEAMIC HEALTH STATISTICS**

## **1993**

Southeast Asian Medical Information Center  
International Medical Foundation of Japan

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**International Medical Foundation of Japan**

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## **Foreword**

It is my great pleasure to send you the 1993 edition of SEAMIC Health Statistics. I would like to express my appreciation to the devoted work of our Editorial Board Members.

I hope this publication will serve your reference.

Takaji Ishimaru, M.D.  
Director General  
SEAMIC/IMFJ

## **Preface**

The SEAMIC HEALTH STATISTICS has been issued annually since 1979 as one of the SEAMIC/IMFJ publications. It has been presenting in a uniform manner, information relevant to health developments in the countries participating in the SEAMIC. The publication has been appreciated by users both in those countries and in others.

The contents of the present issue remain essentially the same as those of the 1992 edition. Part I presents comparative statistics from the participating countries on selected health and related topics. Part II describes the organizational aspects of the health statistics system of each country, providing the background information as to how the statistics included in Part I have been collected, processed and produced. In this issue, however, the tables and graphs of Part I have been renumbered and rearranged in a more logical and systematic sequence under appropriate section headings for easy reference. In Part II maps have been inserted to indicate the countries' geographical location.

In view of the evolving information needs of the users, the contents of the publication will continue to be reviewed for improvements, as done in the past. Suggestions in this regard from the users would be much appreciated.

The Editorial Board wishes to express its warmest thanks to all those in the participating countries who have made valuable contributions to the compilation of the present edition.

February, 1995

Kazuo Uemura  
Chairman  
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SEAMIC HEALTH STATISTICS

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# **Part I**

## **Health Statistics**

### Explanation of Symbols

|               |                             |
|---------------|-----------------------------|
| ••            | Category not applicable     |
| (blank) or NA | Data not available          |
| —             | Nil                         |
| 0.0           | Not nil, but less than 0.05 |
| *             | Provisional or estimated    |

# **1. Population**

1 – 1 Population by Sex, Rate of Population Increase, Surface Area and Density

|                            | Latest Census  |             |            |            |           |                       | Annual Rate of Increase 1981–1990 (%) | Surface Area (km <sup>2</sup> ) | Density (Persons / km <sup>2</sup> ) |
|----------------------------|----------------|-------------|------------|------------|-----------|-----------------------|---------------------------------------|---------------------------------|--------------------------------------|
|                            | Date           | Total       | Male       | Female     | Sex Ratio | Persons per Household |                                       |                                 |                                      |
| BRUNEI <sup>(1)</sup>      | 26 August 1991 | 260,482     | 137,616    | 122,866    | 112.0     | 6.0                   | 3.0 <sup>a)</sup>                     | 5,765                           | 45                                   |
| INDONESIA <sup>(2)</sup>   | 1990           | 179,322,000 | 89,436,285 | 89,885,715 | 99.5      | 4.5                   | 2.0                                   | 1,919,443                       | 93                                   |
| JAPAN <sup>(3)</sup>       | 1 October 1990 | 123,611,167 | 60,696,724 | 62,914,443 | 96.5      | 3.0                   | 0.4 <sup>b)</sup>                     | 377,737                         | 332                                  |
| MALAYSIA <sup>(4)</sup>    | 14 August 1991 | 17,566,982  | 8,861,124  | 8,705,858  | 101.8     | 4.9                   | 2.6 <sup>c)</sup>                     | 329,758                         | 53                                   |
| Peninsular Malaysia        |                | 14,127,556  | 7,080,980  | 7,046,576  | 100.5     | 4.9                   | 2.3                                   | 131,598                         | 107                                  |
| Sabah                      |                | 1,791,209   | 936,772    | 854,437    | 109.6     | 5.1                   | 5.7                                   | 73,711                          | 24                                   |
| Sarawak                    |                | 1,648,217   | 843,372    | 804,845    | 104.8     | 5.0                   | 2.6                                   | 124,449                         | 13                                   |
| PHILIPPINES <sup>(5)</sup> | 1 May 1990     | 60,487,185  | 30,410,475 | 30,076,710 | 101.1     | 5.6                   | 2.5 <sup>c)</sup>                     | 300,000                         | 201                                  |
| SINGAPORE <sup>(6)d)</sup> | 30 June 1990   | 2,705,115   | 1,370,059  | 1,335,056  | 102.6     | 4.2                   | 1.8 <sup>e)</sup>                     | 641 <sup>f)</sup>               | 4,397 <sup>f)</sup>                  |
| THAILAND <sup>(7)</sup>    | 1 April 1990   | 54,532,000  | 27,031,000 | 27,501,000 | 98.3      |                       | 1.4                                   | 513,115                         | 109.8                                |

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance  
 (2) *Population Census of Indonesia, 1990*, Central Bureau of Statistics  
 (3) *1990 Population Census of Japan*, Statistics Bureau, Management and Coordination Agency  
 (4) *Population and Housing Census of Malaysia, 1991* (Preliminary Count Report)  
 (5) National Statistics Office  
 (6) *Census of Population 1990 Singapore. Yearbook of Statistics, Singapore 1993*, Department of Statistics  
 (7) *Preliminary 1990 Population and Housing Census*, National Statistics Office, Office of the Prime Minister.

Note : a) Annual rate of increase 1981–1991  
 b) Annual rate of increase 1985–1990  
 c) Annual rate of increase 1980–1991  
 d) Refer to Singapore residents only  
 e) Annual rate of increase 1983–1992  
 f) Year 1992

## 1 – 2 Estimates of Mid-year Population

(in millions)

|                             | 1970   | 1975   | 1980   | 1984                | 1985                | 1986                | 1987   | 1988   | 1989                 | 1990                 | 1991                 | 1992                 |
|-----------------------------|--------|--------|--------|---------------------|---------------------|---------------------|--------|--------|----------------------|----------------------|----------------------|----------------------|
| BRUNEI <sup>(1)</sup>       | 0.14   | 0.16   | 0.19   | 0.22                | 0.22                | <sup>a)</sup> 0.23  | 0.23   | 0.24   | 0.25                 |                      |                      | 0.27                 |
| INDONESIA <sup>(2)</sup>    | 119.47 | 130.50 | 146.36 | 159.83              | 163.37              | 168.35              | 172.01 | 174.68 | 177.36               | 178.44               | 181.13               | 183.58               |
| JAPAN <sup>(3)</sup>        | 103.72 | 111.94 | 117.06 | 120.31              | 121.05              | 121.67              | 122.26 | 122.78 | <sup>b)</sup> 122.46 | <sup>b)</sup> 122.72 | <sup>b)</sup> 123.10 | <sup>b)</sup> 123.48 |
| MALAYSIA <sup>(4)</sup>     | 10.39  | 11.90  | 13.76  | 15.27               | 15.68               | 16.12               | 16.53  | 16.92  | 17.35                | 17.76                | 18.18                | 18.61                |
| PHILIPPINES <sup>(5)</sup>  | 36.68  | 42.07  | 48.32  | 53.35               | 54.67               | 56.00               | 57.06  | 58.72  | 58.72                | 60.48                | 62.11                | 63.73                |
| SINGAPORE <sup>(6) c)</sup> | 2.07   | 2.26   | 2.28   | 2.44                | 2.48                | 2.52                | 2.55   | 2.60   | 2.65                 | 2.71                 | 2.76                 | 2.82                 |
| THAILAND <sup>(7)</sup>     | 36.37  | 41.39  | 46.52  | <sup>d)</sup> 50.40 | <sup>d)</sup> 51.68 | <sup>d)</sup> 52.65 | 53.15  | 54.54  | 55.45                | 56.34                | 57.19                | 57.76                |

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance  
 (2) *Indonesian Population Projection 1980–2000*, Central Bureau of Statistics  
 (3) *Japan Statistical Yearbook*, Statistics Bureau, Management and Coordination Agency  
 (4) *Yearbook of Statistics 1992*, Department of Statistics  
 (5) National Statistics Office  
 (6) *Report on Registration of Births and Deaths, 1992*, National Registration Department  
 (7) *Report of Working Group on Population Projections*, Office of the National Economic and Social Development Board

Note : a) Population Survey  
 b) Japanese population only  
 c) Population figures from 1980 onwards refer to Singapore residents only  
 d) Estimates based on total population figures, 1980 *Population & Housing Census*, National Statistical Office

## 1 – 3 Population Estimates and Projections

(in thousands)

|                             | 1995    | 2000    | 2005    | 2010    | 2015    | 2020    | 2025    | 2030    | 2035    |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| BRUNEI <sup>(1)</sup>       | 295     | 337     |         |         |         |         |         |         |         |
| INDONESIA <sup>(2)</sup>    | 195,264 | 210,439 | 225,174 | 238,927 | 251,317 | 262,578 |         |         |         |
| JAPAN <sup>(3) a)</sup>     | 125,463 | 127,385 | 129,346 | 130,397 | 130,033 | 128,345 | 125,806 | 122,972 | 120,132 |
| MALAYSIA <sup>(4)</sup>     | 20,125  | 22,263  |         |         |         |         | 31,274  |         |         |
| PHILIPPINES <sup>(5)</sup>  | 68,424  | 75,224  | 81,591  | 87,206  | 92,430  | 97,682  | 102,686 | 107,123 | 111,560 |
| SINGAPORE <sup>(6) b)</sup> | 2,962   | 3,195   | 3,299   | 3,377   | 3,438   | 3,485   | 3,511   | 3,503   |         |
| THAILAND <sup>(7)</sup>     | 60,506  | 64,389  | 67,910  | 70,865  | 73,208  |         |         |         |         |

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance  
 (2) Based on *Population Formula Census 1990*, Central Bureau of Statistics.  
 Calculated by Centre for Health Data  
 (3) *Population Projections for Japan: 1991–2090*, 1992, Institute of Population  
 Problems, Ministry of Health and Welfare  
 (4) Department of Statistics  
 (5) Based on *Population Projections, (Series 2: Moderate Fertility Decline and  
 Moderate Mortality Decline)*, National Statistics Office  
 (6) Population Planning Unit, Ministry of Health  
 (7) *Report of Working Group on Population Projections*, Office of the National  
 Economic and Social Development Board

Note : a) Population on 1 October  
 b) Refer to Singapore residents only

# 1 – 4 Population by Age and Sex

|                             | Year | Sex | Ages     |       |        |        |         |         |         |         |         |
|-----------------------------|------|-----|----------|-------|--------|--------|---------|---------|---------|---------|---------|
|                             |      |     | All Ages | 0     | 1 – 4  | 5 – 9  | 10 – 14 | 15 – 19 | 20 – 24 | 25 – 29 | 30 – 34 |
| BRUNEI <sup>(1)</sup>       | 1992 | T   | 268      |       | 35     | 31     | 27      | 23      | 25      | 27      | 28      |
|                             |      | M   | 141      |       | 18     | 16     | 14      | 12      | 13      | 14      | 15      |
|                             |      | F   | 127      |       | 17     | 15     | 13      | 11      | 12      | 13      | 13      |
| INDONESIA <sup>(2) a)</sup> | 1992 | T   | 186,043  |       | 21,749 | 22,197 | 22,346  | 20,015  | 17,300  | 15,704  | 14,244  |
|                             |      | M   | 92,773   |       | 11,074 | 11,246 | 11,475  | 10,193  | 8,407   | 7,445   | 6,974   |
|                             |      | F   | 93,270   |       | 10,675 | 10,951 | 10,871  | 9,822   | 8,893   | 8,259   | 7,270   |
| JAPAN <sup>(3) b)</sup>     | 1992 | T   | 123,476  |       | 6,165  | 7,117  | 7,943   | 9,561   | 9,473   | 8,111   | 7,684   |
|                             |      | M   | 60,597   |       | 3,163  | 3,647  | 4,073   | 4,906   | 4,837   | 4,104   | 3,881   |
|                             |      | F   | 62,879   |       | 3,002  | 3,470  | 3,871   | 4,656   | 4,636   | 4,007   | 3,803   |
| MALAYSIA <sup>(4)</sup>     | 1992 | T   | 18,606   |       | 2,453  | 2,351  | 1,968   | 1,860   | 1,747   | 1,627   | 1,421   |
|                             |      | M   | 9,380    |       | 1,266  | 1,210  | 1,011   | 950     | 891     | 816     | 690     |
|                             |      | F   | 9,226    |       | 1,187  | 1,141  | 957     | 910     | 856     | 811     | 731     |
| PHILIPPINES <sup>(5)</sup>  | 1992 | T   | 65,408   | 1,862 | 7,208  | 8,206  | 7,696   | 6,908   | 6,128   | 5,431   | 4,743   |
|                             |      | M   | 32,867   | 954   | 3,689  | 4,200  | 3,939   | 3,543   | 3,122   | 2,691   | 2,292   |
|                             |      | F   | 32,541   | 908   | 3,519  | 4,006  | 3,757   | 3,365   | 3,006   | 2,740   | 2,451   |
| SINGAPORE <sup>(6) c)</sup> | 1992 | T   | 2,818    | 48    | 197    | 204    | 201     | 213     | 230     | 279     | 300     |
|                             |      | M   | 1,424    | 25    | 102    | 106    | 104     | 110     | 116     | 140     | 152     |
|                             |      | F   | 1,394    | 23    | 95     | 98     | 97      | 103     | 114     | 139     | 148     |
| THAILAND <sup>(7)</sup>     | 1992 | T   | 57,760   |       | 5,812  | 6,047  | 6,210   | 6,206   | 6,075   | 5,587   | 4,727   |
|                             |      | M   | 28,948   |       | 2,961  | 3,070  | 3,148   | 3,154   | 3,092   | 2,834   | 2,376   |
|                             |      | F   | 28,812   |       | 2,851  | 2,977  | 3,062   | 3,052   | 2,983   | 2,753   | 2,351   |

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance  
(2) *Population Projection, Indonesia by Province 1990–1995*, Central Bureau of Statistics  
(3) *Vital Statistics Japan*, Ministry of Health and Welfare  
(4) Department of Statistics  
(5) National Statistics Office  
(6) Department of Statistics  
(7) *Report of Working Group on Population Projections*, Office of the National Economics and Social Development Board

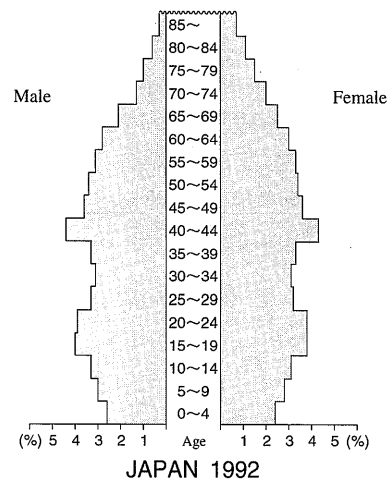
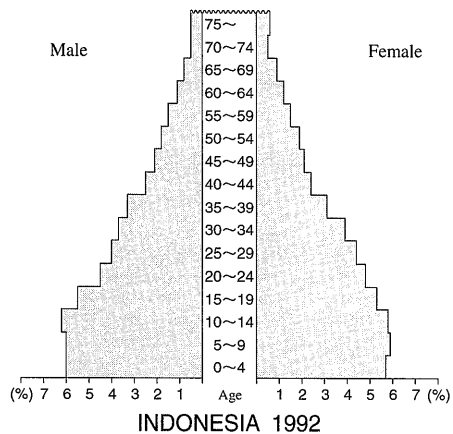
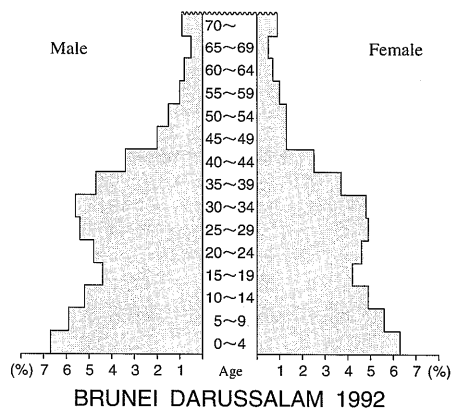
Note : a) Excluding non-permanent resident (homeless people, sailor, boat people and remote area communities) 7,420 person  
b) Refer to Japanese residents population only  
c) Refer to Singapore residents population only

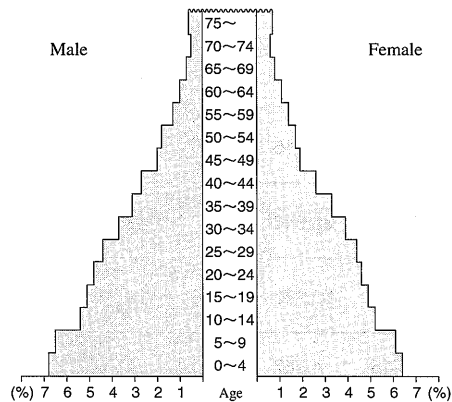
(in thousands)

| Age     |         |         |         |         |         |         |         |         |         |       |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| 35 - 39 | 40 - 44 | 45 - 49 | 50 - 54 | 55 - 59 | 60 - 64 | 65 - 69 | 70 - 74 | 75 - 79 | 80 - 84 | 85 +  |
| 23      | 16      | 9       | 8       | 6       | 4       | 2       |         | 4       |         |       |
| 13      | 9       | 5       | 4       | 3       | 2       | 1       |         | 2       |         |       |
| 10      | 7       | 4       | 4       | 3       | 2       | 1       |         | 2       |         |       |
| 11,912  | 9,263   | 7,684   | 6,796   | 5,555   | 4,313   | 3,067   | 1,895   |         | 2,003   |       |
| 6,074   | 4,720   | 3,807   | 3,329   | 2,700   | 2,079   | 1,481   | 887     |         | 882     |       |
| 5,838   | 4,543   | 3,877   | 3,467   | 2,855   | 2,234   | 1,586   | 1,008   |         | 1,121   |       |
| 8,139   | 10,779  | 8,909   | 8,440   | 7,919   | 7,057   | 5,697   | 4,034   | 3,125   | 2,052   | 1,271 |
| 4,100   | 5,411   | 4,445   | 4,179   | 3,881   | 3,406   | 2,574   | 1,614   | 1,231   | 747     | 397   |
| 4,039   | 5,368   | 4,464   | 4,261   | 4,038   | 3,651   | 3,123   | 2,420   | 1,894   | 1,305   | 874   |
| 1,192   | 983     | 722     | 648     | 500     | 407     | 286     | 205     |         | 236     |       |
| 583     | 492     | 367     | 329     | 245     | 194     | 136     | 94      |         | 106     |       |
| 609     | 491     | 355     | 319     | 255     | 213     | 150     | 111     |         | 130     |       |
| 4,012   | 3,215   | 2,530   | 2,053   | 1,651   | 1,288   | 966     | 692     | 457     | 245     | 117   |
| 1,955   | 1,603   | 1,273   | 1,025   | 811     | 620     | 455     | 321     | 210     | 110     | 54    |
| 2,057   | 1,612   | 1,257   | 1,028   | 840     | 668     | 511     | 371     | 247     | 135     | 63    |
| 277     | 228     | 146     | 131     | 100     | 87      | 65      | 47      | 33      | 20      | 12    |
| 141     | 116     | 74      | 65      | 50      | 43      | 32      | 22      | 14      | 8       | 4     |
| 136     | 112     | 72      | 66      | 50      | 44      | 33      | 25      | 19      | 12      | 8     |
| 3,974   | 3,120   | 2,410   | 2,063   | 1,790   | 1,388   | 1,005   | 657     |         | 689     |       |
| 1,980   | 1,558   | 1,205   | 1,009   | 854     | 655     | 469     | 298     |         | 285     |       |
| 1,994   | 1,562   | 1,205   | 1,054   | 936     | 733     | 536     | 359     |         | 404     |       |

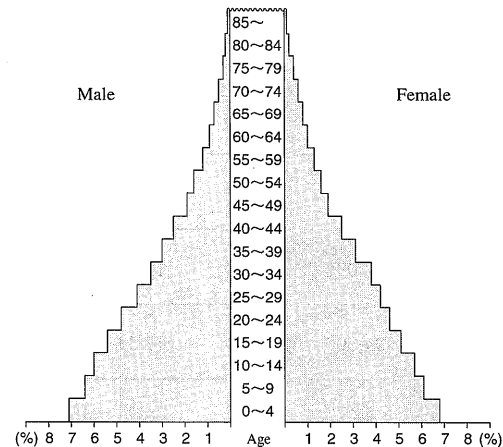


Fig. 1 Population Pyramid

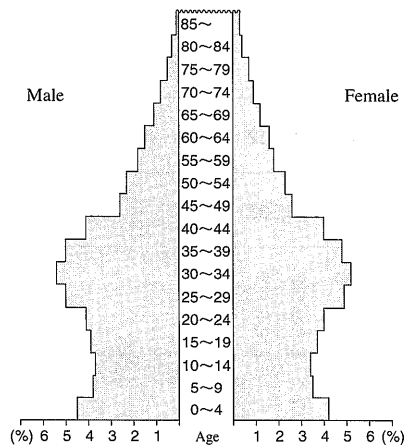




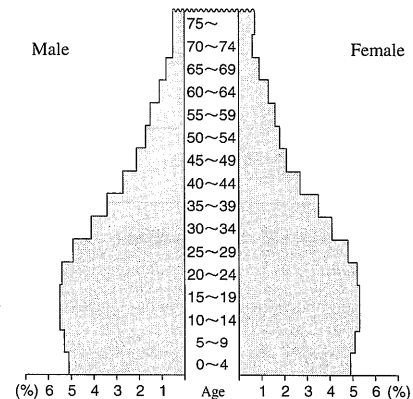
MALAYSIA 1992



PHILIPPINES 1992



SINGAPORE 1992



THAILAND 1992

## 1 – 5 Urban and Total Population

(in thousands)

|                                                                       | 1960                  |        |      | 1970              |        |      | 1980                |        |       | 1990                     |        |       |
|-----------------------------------------------------------------------|-----------------------|--------|------|-------------------|--------|------|---------------------|--------|-------|--------------------------|--------|-------|
|                                                                       | Total                 | Urban  | (%)  | Total             | Urban  | (%)  | Total               | Urban  | (%)   | Total                    | Urban  | (%)   |
| BRUNEI <sup>(1)</sup>                                                 | 84                    | 37     | 43.6 | <sup>a)</sup> 136 | 87     | 63.6 | <sup>b)</sup> 193   | 115    | 59.4  | <sup>c)</sup> 260        | 173    | 66.5  |
| INDONESIA <sup>(2)</sup>                                              | <sup>d)</sup> 97,085  | 14,358 | 14.8 | 119,143           | 20,733 | 17.4 | 146,776             | 32,846 | 22.4  | 175,588                  | 50,456 | 28.7  |
| JAPAN <sup>(3)</sup>                                                  | 94,300                | 59,698 | 63.3 | 104,666           | 75,429 | 72.1 | 117,600             | 89,187 | 76.2  | 123,611                  | 95,644 | 77.4  |
| MALAYSIA <sup>(4)</sup><br>Peninsular<br>Malaysia<br>Sabah<br>Sarawak | 8,170                 | 2,060  | 25.2 | 10,439            | 2,787  | 26.7 | 13,745              | 4,687  | 34.1  | <sup>(5) c)</sup> 17,567 | 8,896  | 50.6  |
|                                                                       |                       |        |      | 8,810             | 2,530  | 28.7 | 11,426              | 4,250  | 37.2  | 14,128                   | 7,677  | 54.3  |
|                                                                       |                       |        |      | 653               | 107    | 16.7 | 1,011               | 208    | 20.6  | 1,791                    | 603    | 33.7  |
|                                                                       |                       |        |      | 975               | 149    | 15.4 | 1,307               | 230    | 17.6  | 1,648                    | 616    | 37.4  |
| PHILIPPINES <sup>(6)</sup>                                            | 28,098                | 8,513  | 30.3 | 37,540            | 12,366 | 32.9 | 48,098              | 17,944 | 37.3  | 60,487                   | 29,419 | 48.6  |
| SINGAPORE <sup>(7)</sup>                                              | <sup>d)</sup> 1,446   | 1,132  | 78.0 | 2,075             | 1,562  | 75.0 | <sup>e)</sup> 2,282 | 2,282  | 100.0 | <sup>e) f)</sup> 2,818   | 2,818  | 100.0 |
| THAILAND <sup>(8)</sup>                                               | <sup>(9)</sup> 26,258 | 3,274  | 12.5 | 34,397            | 4,553  | 13.2 | 44,824              | 7,633  | 17.0  | <sup>g)</sup> 53,870     | 9,697  | 18.0  |

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance  
 (2) *Population of Indonesia*, Central Bureau of Statistics  
 (3) *Japan Statistical Yearbook*, Management and Coordination Agency  
 (4) *General Report of the Population Census 1980, Vol. 1*, Department of Statistics  
 (5) Population and Housing Census of Malaysia, 1991 (Preliminary Count Report)  
 (6) National Statistics Office  
 (7) *Report on the Census of Population 1970, Singapore, Vol. 1*, Department of Statistics  
 (8) *Population & Housing Census*, National Statistical Office, Office of the Prime Minister  
 (9) *1960 Population Census*, Central Statistics Office, National Economic Development Board

Note : a) For 1971  
 b) For 1981  
 c) For 1991  
 d) For 1957  
 e) Population figures from 1980 onwards refer to Singapore residents only  
 f) For 1992  
 g) For 1985

## **2. General Vital Statistics and Life Tables**

## 2 – A Explanatory Notes on Vital Statistics

Crude Live-birth Rate =  $(B / P) \times 1,000$

Crude Death Rate =  $(D / P) \times 1,000$

Infant Mortality Rate =  $(\text{Infant Deaths} / B) \times 1,000$

where B = Number of live-births during a year

D = Number of deaths during a year

P = Population at middle of year

Crude Marriage Rate =  $(M / P) \times 1,000$

Crude Divorce Rate =  $(D / P) \times 1,000$

Crude Birth Rate =  $(B / P) \times 1,000$

General Fertility Rate =  $(B / F_{15-49}) \times 1,000$

where M = Number of marriages during a year

D = Number of divorces during a year

B = Number of births during a year

P = Population at middle of year

F<sub>15-49</sub> = Population of women at ages 15–49 at middle of year

Absolute numbers and crude rates per 1,000 live-births

Late fetal deaths: Fetal deaths after at least 28 weeks' gestation

Fetal deaths of unknown gestational age are included

Infant deaths: Deaths under one year

Neonatal deaths: Deaths under four weeks

Post-neonatal deaths: Deaths from four weeks to under one year

Perinatal deaths: Late fetal deaths and deaths under one week

Maternal Mortality Rate is computed as the ratio of maternal deaths in a year to 100,000 live-births of the same year

Maternal Mortality Rate =  $(D_p / B) \times 100,000$

where D<sub>p</sub> = Direct obstetric deaths (Chapter XI in ICD-9) during a year

B = Number of live-births during a year

## 2 - 1 Crude Live-birth Rates

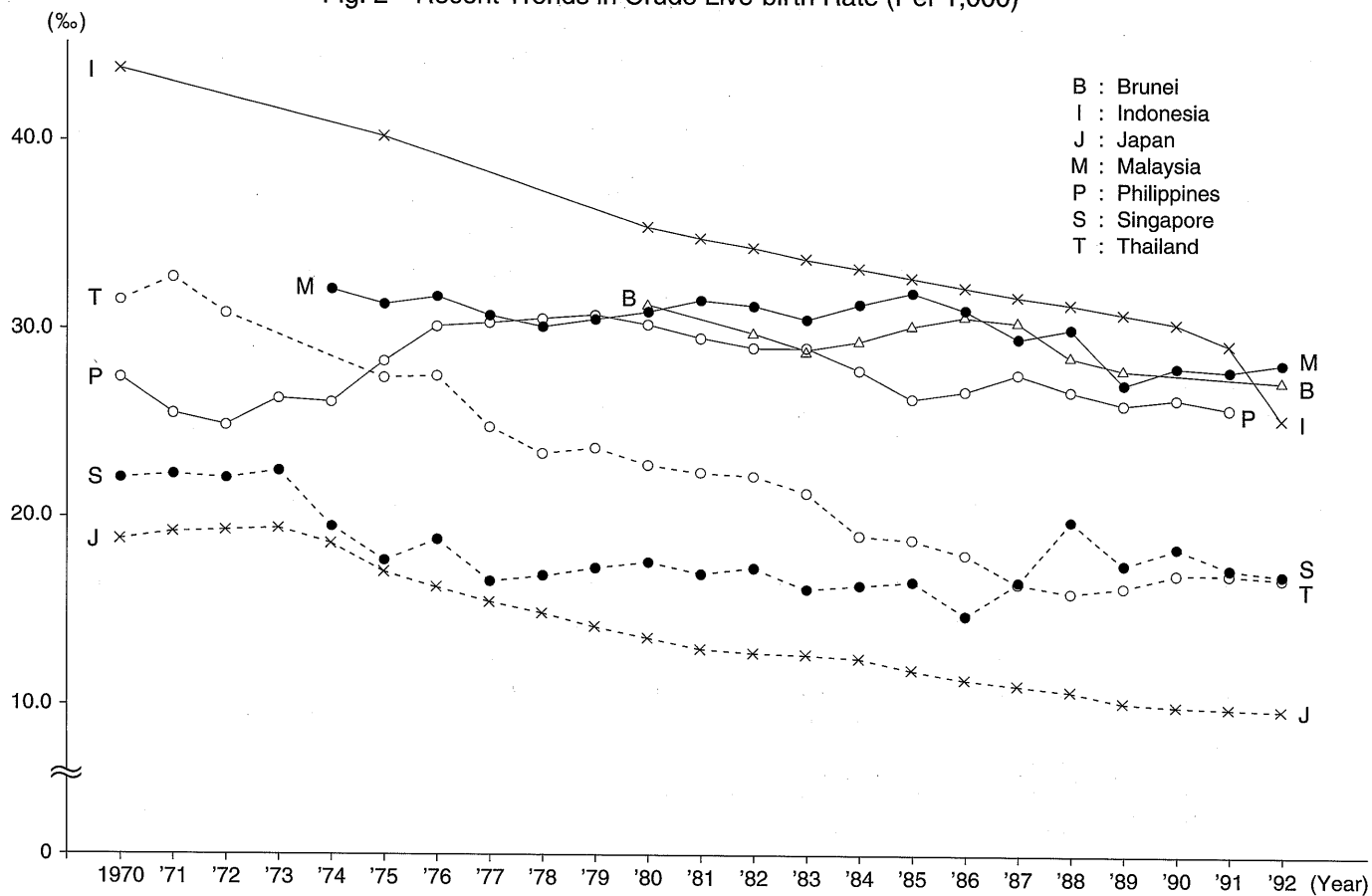
(per 1,000 population)

| Year                        | 1970 | 1975 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991               | 1992               |
|-----------------------------|------|------|------|------|------|------|------|------|------|--------------------|--------------------|
| BRUNEI <sup>(1)</sup>       |      |      | 31.2 | 30.1 | 30.6 | 30.3 | 28.5 | 27.8 |      |                    | 27.2               |
| INDONESIA <sup>(2)</sup>    | 43.8 | 40.2 | 35.4 | 32.7 | 32.2 | 31.7 | 31.3 | 30.8 | 30.3 | 29.2 <sup>a)</sup> | 25.3 <sup>a)</sup> |
| JAPAN <sup>(3)</sup>        | 18.8 | 17.1 | 13.6 | 11.9 | 11.4 | 11.1 | 10.8 | 10.2 | 10.0 | 9.9                | 9.8                |
| MALAYSIA <sup>(4)</sup>     |      |      |      | 31.9 | 33.1 | 29.5 | 30.0 | 27.1 | 28.0 | 27.8               | 28.2               |
| Peninsular Malaysia         | 33.9 | 31.3 | 30.3 | 31.3 | 30.2 | 28.6 | 28.8 | 26.2 | 27.0 | 26.8               | 27.1               |
| Sabah                       | 37.9 | 35.4 | 38.7 | 42.3 | 42.7 | 40.9 | 42.1 | 36.8 | 38.8 | 39.2               | 39.2               |
| Sarawak                     | 30.4 | 29.7 | 29.4 | 27.7 | 27.7 | 28.1 | 30.0 | 26.4 | 27.4 | 25.6               | 27.4               |
| PHILIPPINES <sup>(5)</sup>  | 27.4 | 28.8 | 30.2 | 26.3 | 26.7 | 27.6 | 26.7 | 26.0 | 26.3 | 25.8               |                    |
| SINGAPORE <sup>(6) b)</sup> | 22.1 | 17.7 | 17.6 | 16.6 | 14.8 | 16.6 | 19.8 | 17.5 | 18.4 | 17.3               | 17.0               |
| THAILAND <sup>(7)</sup>     | 31.5 | 27.4 | 22.8 | 18.8 | 18   | 16.5 | 16.0 | 16.3 | 17.0 | 17.0               | 16.8               |

Source : (1) Birth & Death Registry and Economic Planning Unit  
 (2) Central Bureau of Statistics  
 (3) *Vital Statistics Japan*, Ministry of Health & Welfare  
 (4) *Yearbook of Statistics Malaysia*, Department of Statistics  
 (5) *Philippine Health Statistics*, Health Intelligence Service,  
 Department of Health  
 (6) *Year book of Statistics, Singapore 1993*, Department of Statistics  
 (7) Health Information Division, Ministry of Public Health

Note : a) Calculated by Central Bureau of Statistics based on  
 National Census 1990  
 b) Rates from 1980 onward refer to Singapore residents  
 only

Fig. 2 Recent Trends in Crude Live-birth Rate (Per 1,000)



## 2 – 2 Crude Death Rates

(per 1,000 population)

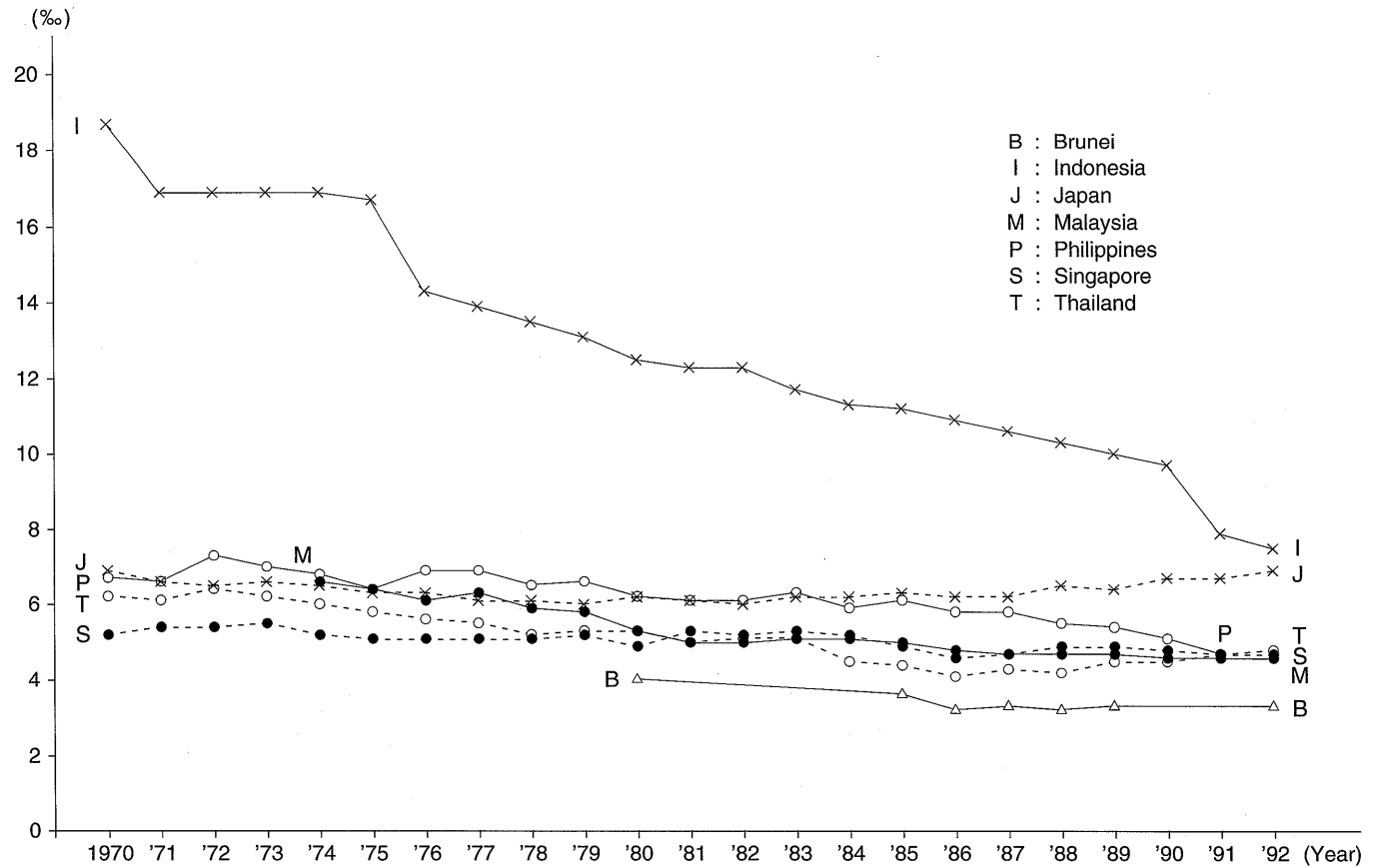
| Year                        | 1970 | 1975 | 1980 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|
| BRUNEI <sup>(1)</sup>       |      |      | 4.0  | 3.6  | 3.2  | 3.3  | 3.2  | 3.3  |      |      | 3.3  |
| INDONESIA <sup>(2)</sup>    | 18.7 | 16.7 | 12.5 | 11.2 | 10.9 | 10.6 | 10.3 | 10.0 | 9.7  | 7.9  | 7.5  |
| JAPAN <sup>(3)</sup>        | 6.9  | 6.3  | 6.2  | 6.3  | 6.2  | 6.2  | 6.5  | 6.4  | 6.7  | 6.7  | 6.9  |
| MALAYSIA <sup>(4)</sup>     |      |      | 5.3  | 5.0  | 4.8  | 4.7  | 4.7  | 4.7  | 4.6  | 4.6  | 4.6  |
| Peninsular Malaysia         | 7.3  | 6.4  | 5.5  | 5.3  | 5.0  | 4.9  | 4.9  | 4.9  | 4.9  | 4.9  | 4.8  |
| Sabah                       | 5.9  | 4.3  | 4.2  | 4.1  | 4.1  | 4.0  | 3.9  | 3.8  | 3.7  | 3.8  | 3.6  |
| Sarawak                     | 5.2  | 5.0  | 4.2  | 3.7  | 3.9  | 3.1  | 3.3  | 3.8  | 3.8  | 3.8  | 3.7  |
| PHILIPPINES <sup>(5)</sup>  | 6.7  | 6.4  | 6.2  | 6.1  | 5.8  | 5.8  | 5.5  | 5.4  | 5.1  | 4.7  |      |
| SINGAPORE <sup>(6) a)</sup> | 5.2  | 5.1  | 4.9  | 4.9  | 4.6  | 4.7  | 4.9  | 4.9  | 4.8  | 4.7  | 4.7  |
| THAILAND <sup>(7)</sup>     | 6.2  | 5.8  | 5.3  | 4.4  | 4.1  | 4.3  | 4.2  | 4.5  | 4.5  | 4.7  | 4.8  |

Source : (1) Birth & Death Registry and Economic Planning Unit  
 (2) Central Bureau of Statistics  
 (3) *Vital Statistics Japan*, Ministry of Health & Welfare  
 (4) *Yearbook of Statistics, Malaysia*, Department of Statistics  
 (5) *Philippine Health Statistics*, Health Intelligence Service, Department of Health  
 (6) *Year book of Statistics, Singapore, 1993*, Department of Statistics  
 (7) Health Information Division, Ministry of Public Health

Note : a) Rates from 1980 onward refer to Singapore residents only



Fig. 3 Recent Trends in Crude Death Rates (Per 1,000)



## 2-3 Vital Statistics Rates

(per 1,000 population)

|                     | Year | Crude Marriage Rate | Crude Divorce Rate | Crude Birth Rate | General Fertility Rate | Crude Death Rate | Infant Mortality Rate |
|---------------------|------|---------------------|--------------------|------------------|------------------------|------------------|-----------------------|
| BRUNEI (1)          | 1992 | a) 7.9              | a) 1.4             | 27.4             | 103.6                  | 3.3              | 9.6                   |
| INDONESIA (2) b)    | 1992 |                     |                    | 25.3             |                        | 7.5              | 60.0                  |
| JAPAN (3)           | 1992 | 6.1                 | 1.5                | 9.8              | 39.0                   | 6.9              | 4.5                   |
| MALAYSIA (4)        |      | 3.2                 | 0.1                | 28.2             | 109.7                  | 4.6              | 12.2                  |
| Peninsular Malaysia | 1992 | 3.3                 | 0.1                | 27.1             | 104.6                  | 4.8              | 11.6                  |
| Sabah               |      | 1.5                 | 0.0                | 39.2             | 174.3                  | 3.6              | 18.7                  |
| Sarawak             |      | 3.6                 | 0.1                | 27.4             | 104.8                  | 3.7              | 9.4                   |
| PHILIPPINES (5)     | 1991 | 6.0                 |                    | 25.8             | 99.7                   | 4.7              | 20.9                  |
| SINGAPORE (6) c)    | 1992 | 9.2                 | 1.4                | 17.0             | 58.2                   | 4.7              | 5.0                   |
| THAILAND (7)        | 1992 | (8) 8.4             | (8) 0.8            | 16.8             | 61.0                   | 4.8              | 7.5                   |

Source : (1) Birth & Death Registry and Economic Planning Unit  
 (2) Central Bureau of Statistics  
 (3) *Vital Statistics Japan*, Ministry of Health & Welfare  
 (4) National Registration Department  
 (5) *Vital Statistics Report CPH*, National Statistics Office, based on registered events only; subject to under-reporting and *Philippine Health Statistics*, Department of Health  
 (6) *Yearbook of Statistics, Singapore 1993*, Department of Statistics  
 (7) Health Statistics Division, Ministry of Public Health  
 (8) Ministry of Interior

Note : a) Muslims  
 b) Calculated by Central Bureau of Statistics based on National Census 1990  
 c) Rates refer to Singapore residents only

## 2 – 4 Natality, Mortality and Natural Increase

|                             | Year | Natality (live-born) |         |         |      | General Mortality    |         |         |     | Natural Increase (%) |
|-----------------------------|------|----------------------|---------|---------|------|----------------------|---------|---------|-----|----------------------|
|                             |      | Number               |         |         | (%)  | Number               |         |         | (%) |                      |
|                             |      | Total                | Male    | Female  |      | Total                | Male    | Female  |     |                      |
| BRUNEI <sup>(1)</sup>       | 1992 | 7,290 <sup>a)</sup>  | 3,709   | 3,580   | 27.2 | 887                  | 534     | 352     | 3.3 | 23.9                 |
| INDONESIA <sup>(2)</sup>    | 1991 |                      |         |         |      |                      |         |         |     | 19.8                 |
| JAPAN <sup>(3)</sup>        | 1992 | 1,208,989            | 622,136 | 586,853 | 9.8  | 856,643              | 465,544 | 391,099 | 6.9 | 2.9                  |
| MALAYSIA <sup>(4)</sup>     | 1992 | 524,349              | 271,085 | 253,264 | 28.2 | 85,646               | 48,719  | 36,927  | 4.6 | 23.6                 |
| Peninsular Malaysia         |      | 414,123              | 213,623 | 200,500 | 27.1 | 73,550               | 41,401  | 32,149  | 4.8 | 21.8                 |
| Sabah                       |      | 62,178               | 32,324  | 29,854  | 39.2 | 5,693                | 3,500   | 2,193   | 3.6 | 35.7                 |
| Sarawak                     |      | 48,048               | 25,138  | 22,910  | 27.4 | 6,403                | 3,818   | 2,585   | 3.7 | 23.7                 |
| PHILIPPINES <sup>(5)</sup>  | 1991 | 1,643,296            | 855,879 | 787,417 | 25.8 | 298,063              | 177,819 | 120,244 | 4.7 | 21.1                 |
| SINGAPORE <sup>(6) b)</sup> | 1992 | 49,402               | 25,465  | 23,936  | 17.0 | 14,337 <sup>c)</sup> | 8,145   | 6,188   | 4.7 | 12.3                 |
| THAILAND <sup>(7)</sup>     | 1992 | 964,557              | 493,900 | 470,657 | 16.8 | 275,313              | 162,546 | 112,767 | 4.8 | 12.0                 |

Source : (1) Birth & Death Registry and Economic Planning Unit  
(2) Calculated by Central Bureau of Statistics  
(3) *Vital Statistics Japan*, Ministry of Health & Welfare  
(4) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak*, Department of Statistics  
(5) *Philippine Health Statistics*, Health Intelligence Service, Department of Health  
(6) *Report on Registration of Births and Deaths, 1992*, National Registration Department  
(7) Health Statistics Division, Ministry of Public Health

Note : Figures for males and females may not add up to the total on account of unknown sex  
a) Including one intersex  
b) Rates refer to Singapore residents only  
c) Includes unknown sex

## 2 – 5 Deaths and Death Rates by Age

|                                                                       | Year | Sex | All ages             |       | 0                 |         | 1 – 4  |       | 5 – 14 |      | 15 – 24 |       |
|-----------------------------------------------------------------------|------|-----|----------------------|-------|-------------------|---------|--------|-------|--------|------|---------|-------|
|                                                                       |      |     | Number               | Rate  | Number            | Rate    | Number | Rate  | Number | Rate | Number  | Rate  |
| BRUNEI <sup>(1)</sup>                                                 | 1992 | T   | 887                  | 331.2 | 85                |         |        | 244.3 | 18     | 31.3 | 45      | 93.4  |
|                                                                       |      | M   | 534                  | 377.9 | 51                |         |        | 283.3 | 10     | 33.8 | 37      | 149.8 |
|                                                                       |      | F   | 352                  | 278.3 | 33                |         |        | 196.4 | 8      | 28.7 | 8       | 34.0  |
| INDONESIA <sup>(2) a)</sup>                                           | 1992 | T   | 5,352                |       | 818               |         | 292    |       | 315    |      | 443     |       |
| JAPAN <sup>(3)</sup>                                                  | 1992 | T   | 856,643              | 693.8 | 5,477             | 453.0   | 2,137  | 43.2  | 2,463  | 16.4 | 8,987   | 47.2  |
|                                                                       |      | M   | 465,544              | 768.3 | 3,103             | 497.3   | 1,210  | 47.7  | 1,496  | 19.4 | 6,564   | 67.4  |
|                                                                       |      | F   | 391,099              | 622.0 | 2,374             | 403.1   | 927    | 38.4  | 967    | 13.2 | 2,423   | 26.1  |
| MALAYSIA <sup>(4)</sup><br>Peninsular<br>Malaysia<br>Sabah<br>Sarawak | 1992 | T   | 73,550               | 481.5 | 6,066             |         |        | 311.5 | 1,593  | 45.4 | 3,052   | 103.6 |
|                                                                       |      | T   | 5,693                | 359.2 | 1,385             |         |        | 482.4 | 168    | 39.4 | 283     | 98.7  |
|                                                                       |      | T   | 6,403                | 366.0 | 555               |         |        | 246.6 | 114    | 29.9 | 262     | 70.0  |
| PHILIPPINES <sup>(5)</sup>                                            | 1991 | T   | 298,063              | 467.7 | 34,332            | 1,843.8 | 18,069 | 250.7 | 12,587 | 79.2 | 16,173  | 124.1 |
|                                                                       |      | M   | 177,821              | 555.2 | 20,087            | 2,105.6 | 9,857  | 267.2 | 7,227  | 88.8 | 11,101  | 166.6 |
|                                                                       |      | F   | 120,242              | 379.3 | 14,245            | 1,568.8 | 8,212  | 233.4 | 5,360  | 69.0 | 5,072   | 79.6  |
| SINGAPORE <sup>(6) b)</sup>                                           | 1992 | T   | 14,337 <sup>c)</sup> | 471.9 | 319 <sup>c)</sup> |         |        | 114.4 | 111    | 24.4 | 306     | 48.3  |
|                                                                       |      | M   | 8,145                | 525.0 | 177               |         |        | 124.3 | 72     | 30.9 | 219     | 66.7  |
|                                                                       |      | F   | 6,188                | 420.2 | 141               |         |        | 103.0 | 39     | 17.4 | 87      | 29.1  |
| THAILAND <sup>(7)</sup>                                               | 1992 | T   | 275,313              | 479.8 | 11,330            |         |        | 196.3 | 5,829  | 47.9 | 17,775  | 145.7 |
|                                                                       |      | M   | 162,546              | 565.6 | 6,545             |         |        | 222.6 | 3,458  | 56.0 | 13,598  | 219.3 |
|                                                                       |      | F   | 112,767              | 393.8 | 4,785             |         |        | 168.9 | 2,371  | 39.5 | 4,177   | 69.6  |

Source : (1) Birth and Death Registry, Ministry of Health and Statistics Section, Economic Planning Unit, Ministry of Finance  
 (2) Directorat General of Medical Care, Ministry of Health  
 (3) *Vital Statistics Japan*, Ministry of Health and Welfare  
 (4) *Vital Statistics, Malaysia, 1992*, Department of Statistics  
 (5) *Philippine Health Statistics*, Health Intelligence Service, Department of Health  
 (6) *Report on Registration of Births and Deaths, 1992*, National Registration Department  
 (7) Health Statistics Division, Ministry of Public Health

Note : a) Based on 10 days sample of discharges from hospital for each quarter  
 b) Rates refer to Singapore residents only  
 c) Includes unknown sex

(rate per 100,000 population)

| 25 – 34 |       | 35 – 44           |       | 45 – 54 |       | 55 – 64             |         | 65 – 74 |         | 75 & over |          | Unknown          |      |
|---------|-------|-------------------|-------|---------|-------|---------------------|---------|---------|---------|-----------|----------|------------------|------|
| Number  | Rate  | Number            | Rate  | Number  | Rate  | Number              | Rate    | Number  | Rate    | Number    | Rate     | Number           | Rate |
| 50      | 90.4  | 75                | 194.8 | 72      | 455.7 | 127                 | 1,365.6 | 415     |         |           | 5,608.1  |                  |      |
| 42      | 142.9 | 49                | 225.8 | 42      | 451.6 | 74                  | 1,541.7 | 229     |         |           | 6,542.9  |                  |      |
| 8       | 30.9  | 26                | 154.8 | 30      | 400.0 | 53                  | 1,177.8 | 186     |         |           | 5,166.7  |                  |      |
| 1,008   |       |                   |       | 1,464   |       |                     |         | 1,012   |         |           |          |                  |      |
| 9,136   | 57.8  | 23,660            | 125.1 | 51,749  | 298.3 | 113,946             | 760.9   | 169,814 | 1,745.1 | 468,677   | 7,268.6  | 597              |      |
| 6,089   | 76.3  | 15,188            | 154.1 | 34,198  | 396.5 | 78,483              | 1,077.0 | 103,295 | 2,466.5 | 215,429   | 9,070.7  | 489              |      |
| 3,047   | 39.0  | 8,472             | 90.1  | 17,551  | 201.2 | 35,463              | 461.2   | 66,519  | 1,200.1 | 253,248   | 6,217.7  | 108              |      |
| 3,451   | 136.1 | 4,448             | 244.9 | 6,464   | 561.8 | 11,467              | 1,495.4 | 16,545  | 4,010.9 | 20,257    | 11,049.5 | 207              |      |
| 422     | 185.3 | 389               | 236.9 | 591     | 636.2 | 776                 | 1,356.6 | 849     | 2,975.8 | 772       | 8,117.8  | 58               |      |
| 280     | 99.0  | 370               | 190.6 | 599     | 473.9 | 1,001               | 1,191.7 | 1,571   | 3,207.2 | 1,600     | 6,097.3  | 51               |      |
| 21,792  | 214.2 | 23,647            | 327.2 | 27,864  | 608.0 | 35,194              | 1,197.5 | 41,361  | 2,494.3 | 67,029    | 8,184.3  | 15               |      |
| 15,300  | 307.1 | 16,093            | 452.2 | 18,735  | 815.3 | 22,800              | 1,594.0 | 24,156  | 3,111.8 | 32,453    | 8,686.9  | 12               |      |
| 6,492   | 125.0 | 7,554             | 205.9 | 9,129   | 399.6 | 12,394              | 821.6   | 17,205  | 1,950.8 | 34,576    | 7,762.8  | 3                |      |
| 541     | 67.1  | 769 <sup>c)</sup> | 133.6 | 1,210   | 398.9 | 2,339 <sup>c)</sup> | 1,188.0 | 3,449   | 2,938.6 | 5,247     | 7,681.9  | 46 <sup>c)</sup> |      |
| 380     | 86.0  | 493               | 161.7 | 754     | 488.5 | 1,503               | 1,537.1 | 2,100   | 3,729.5 | 2,414     | 8,704.1  | 33               |      |
| 161     | 47.8  | 275               | 104.4 | 456     | 308.4 | 835                 | 844.1   | 1,349   | 2,216.4 | 2,833     | 6,982.1  | 12               |      |
| 20,516  | 200.2 | 22,864            | 324.5 | 28,772  | 649.2 | 42,690              | 1,352.3 | 48,612  | 2,944.4 | 72,556    | 10,600.3 | 4,369            |      |
| 15,643  | 302.4 | 15,922            | 453.3 | 18,177  | 826.9 | 25,905              | 1,729.8 | 27,330  | 3,588.9 | 33,286    | 11,763.6 | 2,682            |      |
| 4,873   | 96.1  | 6,942             | 196.4 | 10,595  | 471.9 | 16,785              | 1,011.9 | 21,282  | 2,392.6 | 39,270    | 9,780.6  | 1,687            |      |

## 2 – 6 Expectation of Life at Specified Ages for Each Sex

|                                                | Year | Sex    | Age          |              |              |              |              |              |              |              |              |
|------------------------------------------------|------|--------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                                |      |        | 0            | 1            | 2            | 3            | 4            | 5            | 10           | 15           | 20           |
| BRUNEI <sup>(1)</sup>                          | 1981 | M<br>F | 70.1<br>72.7 | 70.3<br>72.7 |              |              |              | 66.7<br>69.0 | 61.9<br>64.1 | 57.1<br>59.3 | 52.4<br>54.5 |
| INDONESIA <sup>(2)</sup>                       | 1992 | M<br>F | 60.4<br>64.2 | 63.7<br>66.8 |              |              |              | 61.2<br>63.7 | 56.5<br>57.6 | 52.1<br>54.3 | 47.6<br>50.4 |
| JAPAN <sup>(3)</sup>                           | 1992 | M<br>F | 76.1<br>82.2 | 75.5<br>81.6 | 74.5<br>80.6 | 73.6<br>79.6 | 72.6<br>78.7 | 71.6<br>77.7 | 66.7<br>72.7 | 61.7<br>67.8 | 56.9<br>62.8 |
| MALAYSIA<br>Peninsular Malaysia <sup>(4)</sup> | 1992 | M<br>F | 69.0<br>73.7 | 68.9<br>73.6 |              |              |              | 65.2<br>69.9 | 60.4<br>65.0 | 55.6<br>60.1 | 51.0<br>55.3 |
| PHILIPPINES <sup>(5)</sup>                     | 1991 | M<br>F | 62.9<br>67.6 | 65.8<br>70.4 | 65.4<br>70.0 | 64.8<br>69.5 | 64.2<br>69.0 | 63.4<br>68.2 | 58.7<br>63.6 | 53.9<br>58.9 | 49.3<br>54.2 |
| SINGAPORE <sup>(6)</sup>                       | 1992 | M<br>F | 73.7<br>78.3 | 73.1<br>77.6 |              |              |              | 69.2<br>73.7 | 64.3<br>68.8 | 59.4<br>63.9 | 54.5<br>58.9 |
| THAILAND <sup>(7)</sup>                        | 1991 | M<br>F | 67.7<br>72.5 | 69.8<br>74.8 |              |              |              | 66.2<br>71.1 | 61.6<br>66.4 | 56.9<br>61.6 | 52.3<br>56.9 |

Source : (1) *Brunei Statistical Yearbook 1986*

(2) Calculated by Centre for Health Data, using Model Life Table for West Model and level of mortality = 18.66

(3) *Abridged Life Table for Japan*, Ministry of Health & Welfare

(4) *Abridged Life Table*, Department of Statistics

(5) University of the Philippines Population Institute, projected using 1990 baseline estimates based on registered deaths aged 5 years and over, corrected for underregistration and implied infant and child mortality from the adjusted deaths at ages 5–9 (Latin American Pattern, Model Life Tables for Developing Countries), assumption = moderate mortality decline.

(6) *Abridged Life Table*, Ministry of Health

(7) National Statistical Office

| Age          |              |              |              |              |              |              |              |              |              |              |            |            |            |            |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|------------|------------|
| 25           | 30           | 35           | 40           | 45           | 50           | 55           | 60           | 65           | 70           | 75           | 80         | 85         | 90         | 95         |
| 47.8<br>49.7 | 43.2<br>44.9 | 38.5<br>40.1 | 33.9<br>35.4 | 29.4<br>31.0 | 25.1<br>26.6 | 21.1<br>22.7 | 17.3<br>19.2 | 13.7<br>16.1 | 10.6<br>12.9 | 7.6<br>10.0  | 5.7<br>7.2 | 4.2<br>5.2 |            |            |
| 43.3<br>46.0 | 39.0<br>41.6 | 34.7<br>37.3 | 30.4<br>33.0 | 26.2<br>28.7 | 22.3<br>24.6 | 18.6<br>20.6 | 15.1<br>16.8 | 12.0<br>13.4 | 9.3<br>10.3  | 6.9<br>7.6   | 5.0<br>5.4 |            |            |            |
| 52.1<br>57.9 | 47.3<br>53.0 | 42.5<br>48.1 | 37.7<br>43.3 | 33.0<br>38.5 | 28.5<br>33.8 | 24.2<br>29.2 | 20.1<br>24.7 | 16.3<br>20.3 | 12.8<br>16.1 | 9.6<br>12.3  | 6.9<br>8.9 | 4.9<br>6.1 | 3.3<br>4.0 | 2.2<br>2.5 |
| 46.4<br>50.4 | 41.8<br>45.6 | 37.2<br>40.9 | 32.6<br>36.1 | 28.2<br>31.5 | 23.9<br>26.9 | 19.9<br>22.6 | 16.2<br>18.5 | 13.0<br>14.8 | 10.0<br>11.6 | 7.5<br>8.6   | 5.5<br>6.2 |            |            |            |
| 44.9<br>49.5 | 40.6<br>44.9 | 36.3<br>40.3 | 32.2<br>35.8 | 28.1<br>31.4 | 24.3<br>27.1 | 20.7<br>23.0 | 17.3<br>19.1 | 14.2<br>15.3 | 11.3<br>11.8 | 8.7<br>8.7   | 6.7<br>6.2 |            |            |            |
| 49.7<br>54.0 | 44.9<br>49.1 | 40.1<br>44.3 | 35.3<br>39.4 | 30.7<br>34.7 | 26.2<br>30.0 | 21.9<br>25.5 | 18.1<br>21.3 | 14.8<br>17.3 | 11.8<br>13.7 | 9.1<br>10.4  | 6.7<br>7.5 | 4.4<br>4.6 |            |            |
| 47.7<br>52.3 | 43.2<br>47.7 | 38.8<br>43.1 | 34.4<br>38.6 | 30.2<br>34.1 | 26.1<br>29.7 | 22.3<br>25.9 | 18.8<br>22.0 | 15.7<br>18.3 | 12.8<br>14.8 | 10.5<br>11.4 | 9.3<br>9.0 |            |            |            |

## 2 – 7 Survivors at Specified Ages for Each Sex

|                                                | Year | Sex | Age     |        |        |        |        |        |        |        |
|------------------------------------------------|------|-----|---------|--------|--------|--------|--------|--------|--------|--------|
|                                                |      |     | 0       | 1      | 5      | 10     | 15     | 20     | 25     | 30     |
| BRUNEI <sup>(1)</sup>                          | 1981 | M   | 100,000 | 98,320 | 97,810 | 97,436 | 97,126 | 96,553 | 95,797 | 95,087 |
|                                                |      | F   | 100,000 | 98,704 | 98,272 | 98,091 | 97,809 | 97,437 | 97,059 | 96,667 |
| INDONESIA <sup>(2)</sup>                       | 1992 | M   | 100,000 | 93,324 | 91,151 | 90,362 | 89,765 | 88,799 | 87,450 | 86,060 |
|                                                |      | F   | 100,000 | 94,663 | 92,647 | 91,949 | 91,409 | 90,597 | 89,513 | 88,259 |
| JAPAN <sup>(3)</sup>                           | 1992 | M   | 100,000 | 99,503 | 99,311 | 99,206 | 99,123 | 98,830 | 98,462 | 98,107 |
|                                                |      | F   | 100,000 | 99,598 | 99,444 | 99,373 | 99,313 | 99,201 | 99,056 | 98,882 |
| MALAYSIA<br>Peninsular Malaysia <sup>(4)</sup> | 1992 | M   | 100,000 | 98,622 | 98,236 | 97,956 | 97,627 | 96,995 | 96,153 | 95,370 |
|                                                |      | F   | 100,000 | 98,821 | 98,487 | 98,283 | 98,103 | 97,865 | 97,530 | 97,163 |
| PHILIPPINES <sup>(5)</sup>                     | 1991 | M   | 100,000 | 94,089 | 91,901 | 91,442 | 91,032 | 90,351 | 89,139 | 87,812 |
|                                                |      | F   | 100,000 | 94,674 | 92,289 | 91,696 | 91,335 | 90,879 | 90,245 | 89,526 |
| SINGAPORE <sup>(6)</sup>                       | 1992 | M   | 100,000 | 99,448 | 99,319 | 99,202 | 99,059 | 98,798 | 98,417 | 98,009 |
|                                                |      | F   | 100,000 | 99,545 | 99,427 | 99,351 | 99,229 | 99,090 | 98,906 | 98,718 |
| THAILAND <sup>(7)</sup>                        | 1991 | M   | 100,000 | 95,624 | 95,106 | 94,544 | 94,030 | 93,385 | 92,582 | 91,561 |
|                                                |      | F   | 100,000 | 95,670 | 95,248 | 94,798 | 94,513 | 94,024 | 93,316 | 92,702 |

Source : (1) *Brunei Statistical Yearbook 1986*

(2) Calculated by Centre for Health Data, using level of mortality = 18.66

(3) *Abridged Life Table*, Ministry of Health & Welfare

(4) *Abridged Life Table*, Department of Statistics

(5) University of the Philippines Population Institute, projected using 1990 baseline estimates based on registered deaths aged 5 years and over, corrected for underregistration and implied infant and child mortality from the adjusted deaths at ages 5–9 (Latin American Pattern, Model Life Tables for Developing Countries), assumption = moderate mortality decline.

(6) *Abridged Life Table*, Ministry of Health

(7) National Statistical Office



| Age              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                |  |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------|--|
| 35               | 40               | 45               | 50               | 55               | 60               | 65               | 70               | 75               | 80               | 85               | 90               | 95             |  |
| 94,297<br>96,065 | 93,386<br>95,306 | 91,805<br>93,927 | 89,627<br>91,624 | 85,842<br>87,809 | 80,563<br>81,701 | 73,601<br>73,207 | 62,993<br>64,942 | 50,187<br>53,999 | 31,312<br>41,422 | 14,851<br>25,421 |                  |                |  |
| 84,489<br>86,822 | 82,598<br>85,135 | 80,133<br>83,093 | 76,784<br>80,473 | 72,128<br>76,891 | 65,728<br>72,020 | 57,106<br>65,070 | 46,155<br>55,412 | 33,181<br>42,507 | 19,753<br>27,476 |                  |                  |                |  |
| 97,710<br>98,664 | 97,152<br>98,341 | 96,246<br>97,827 | 94,758<br>97,034 | 92,445<br>95,853 | 88,610<br>94,097 | 82,801<br>91,452 | 74,733<br>87,355 | 63,311<br>80,510 | 47,524<br>68,950 | 28,644<br>50,809 | 12,016<br>28,184 | 2,759<br>9,110 |  |
| 94,354<br>96,651 | 93,153<br>95,938 | 91,480<br>95,027 | 89,048<br>93,460 | 85,055<br>91,008 | 78,971<br>87,125 | 69,847<br>80,778 | 58,484<br>70,978 | 44,269<br>57,503 | 27,640<br>39,878 |                  |                  |                |  |
| 86,072<br>88,644 | 83,988<br>87,477 | 81,504<br>85,967 | 77,917<br>83,948 | 73,189<br>80,895 | 67,177<br>76,987 | 59,258<br>71,410 | 50,182<br>63,943 | 39,395<br>53,057 | 26,803<br>37,554 |                  |                  |                |  |
| 97,566<br>98,447 | 96,981<br>98,104 | 96,027<br>97,424 | 94,408<br>96,460 | 91,465<br>94,675 | 86,234<br>91,620 | 77,839<br>86,804 | 66,967<br>79,539 | 53,404<br>68,684 | 38,192<br>54,400 | 23,555<br>38,614 |                  |                |  |
| 90,304<br>91,900 | 88,711<br>90,780 | 86,695<br>89,406 | 83,959<br>87,701 | 79,901<br>84,092 | 74,226<br>80,437 | 66,522<br>75,230 | 57,251<br>68,750 | 45,430<br>60,596 | 30,775<br>47,065 |                  |                  |                |  |

Fig. 4 Survivors at Specified Ages for Each Sex (1) BRUNEI, 1981

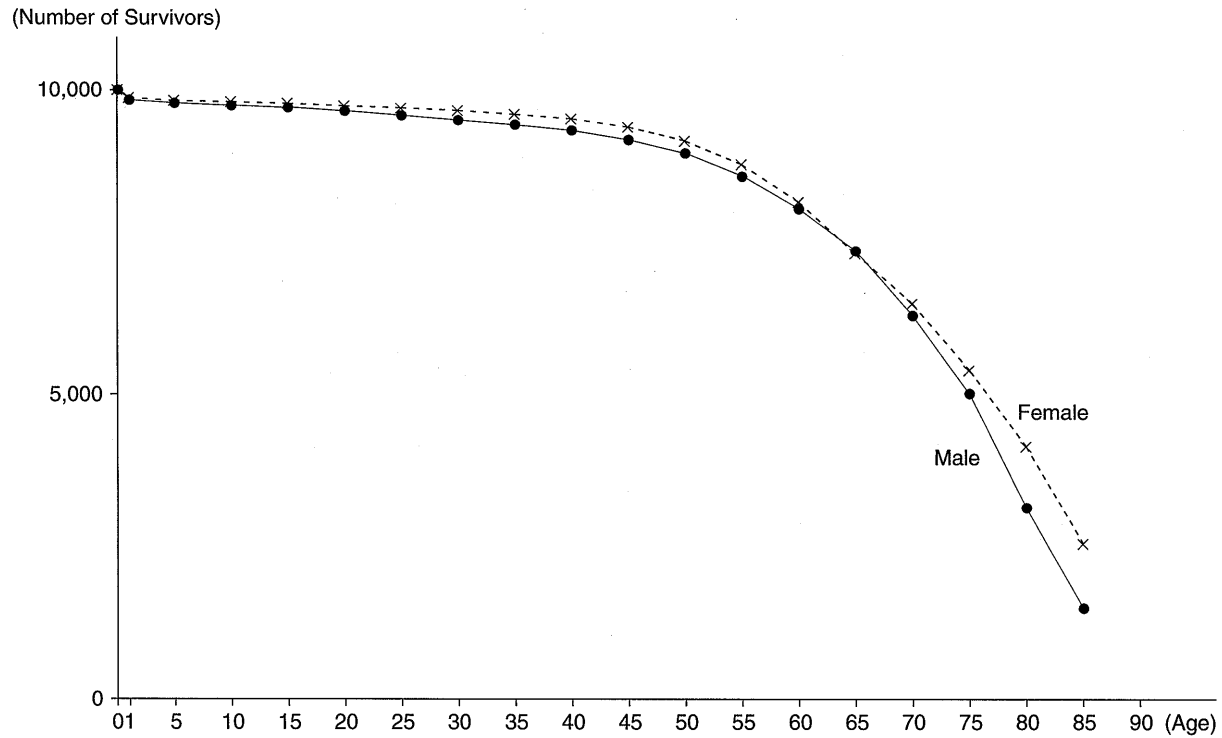


Fig. 4 Survivors at Specified Ages for Each Sex (2) INDONESIA, 1992

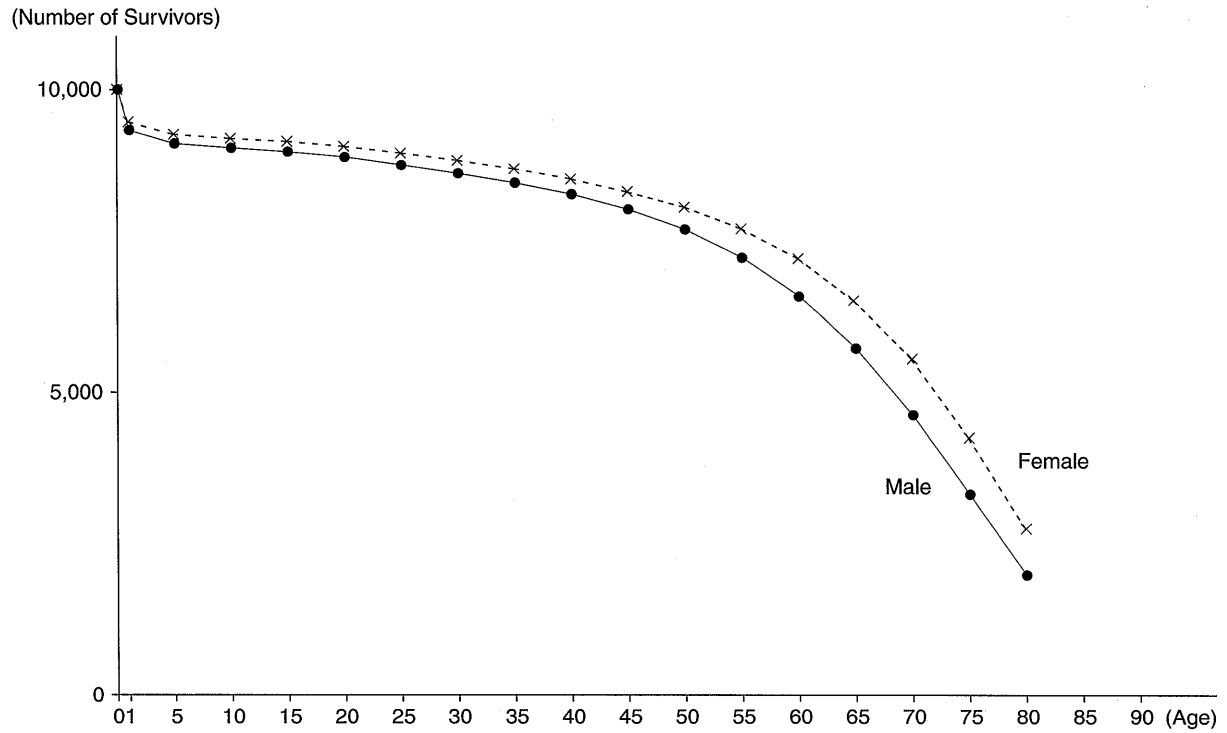


Fig. 4 Survivors at Specified Ages for Each Sex (3) JAPAN, 1992

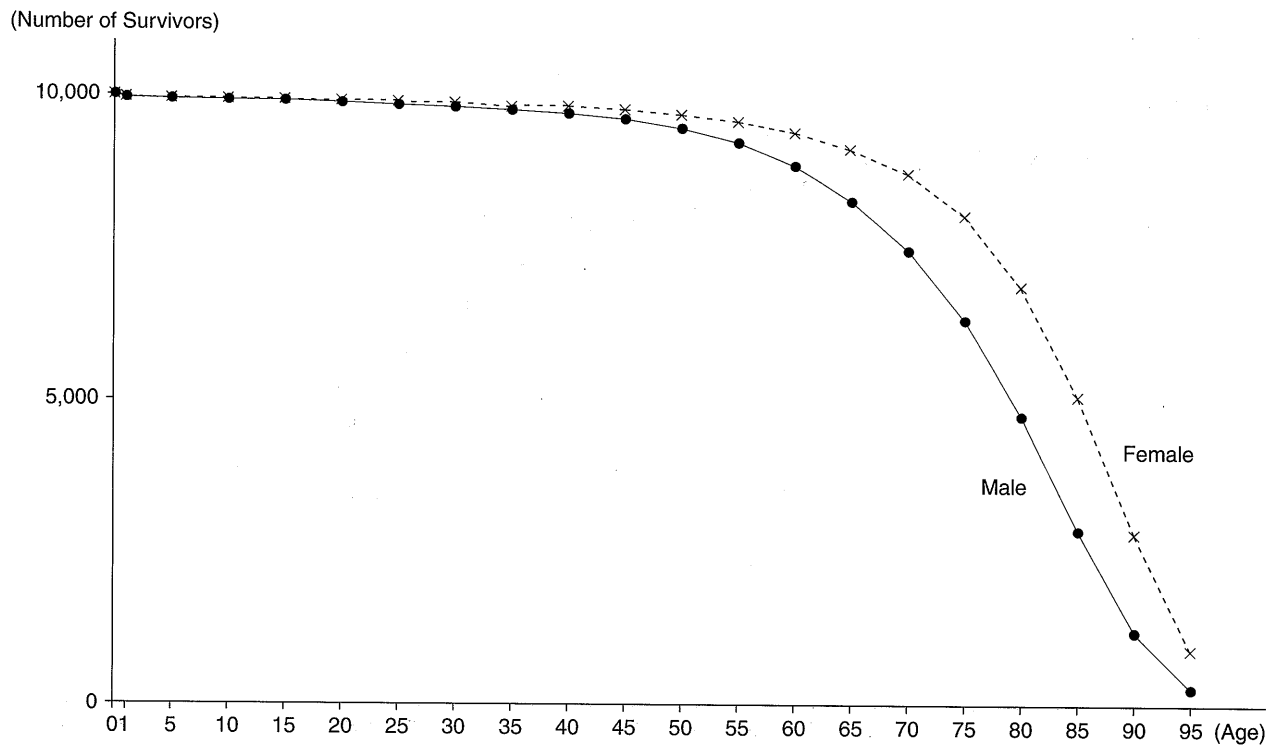


Fig. 4 Survivors at Specified Ages for Each Sex (4) PENINSULAR MALAYSIA, 1992

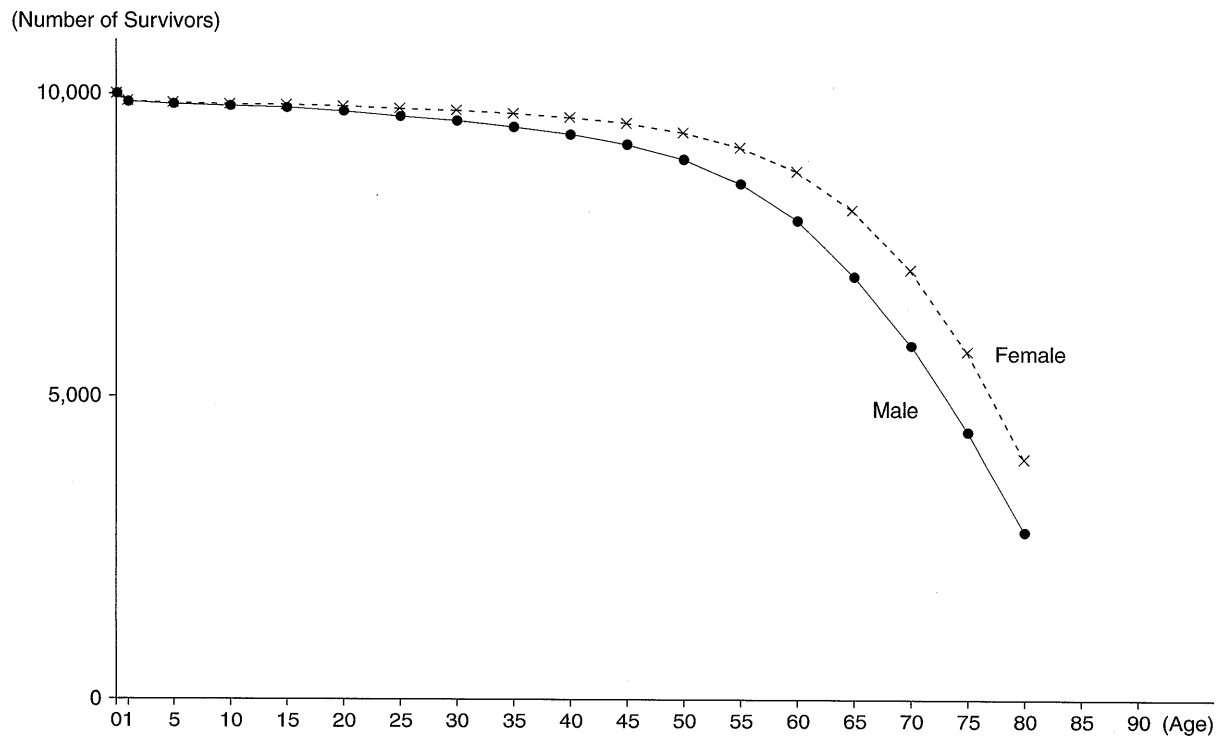


Fig. 4 Survivors at Specified Ages for Each Sex (5) PHILIPPINES, 1991

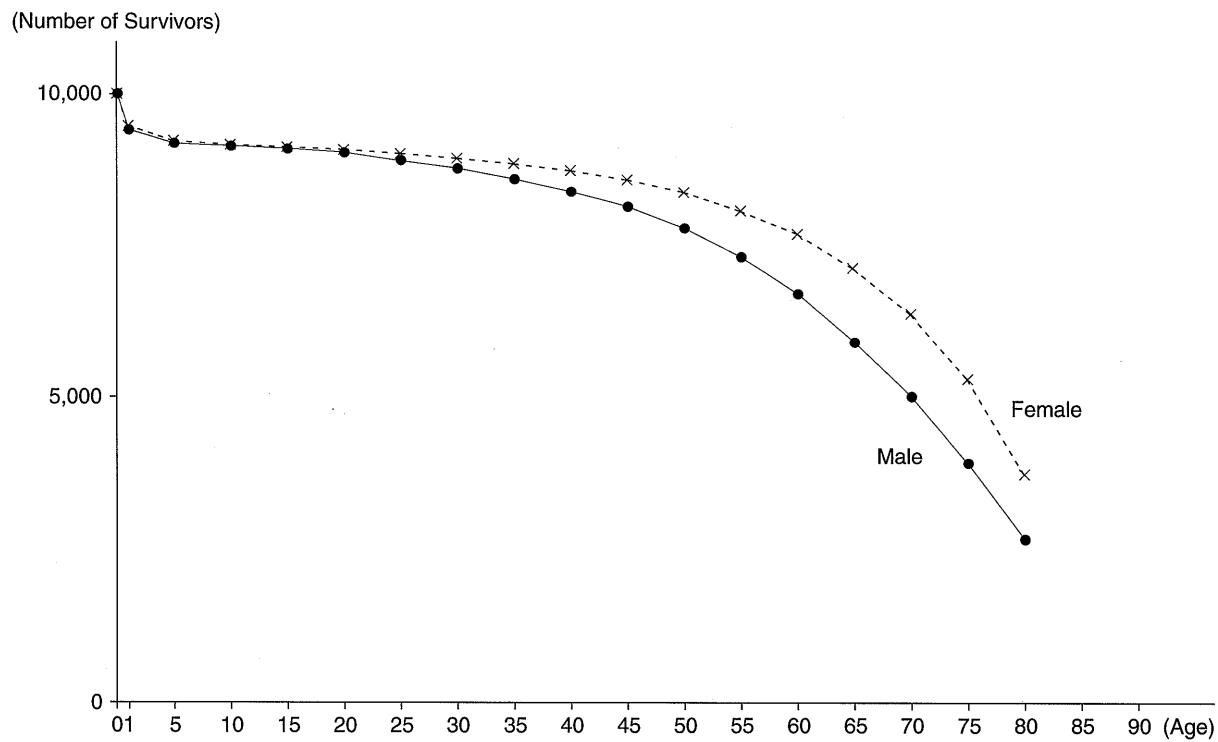


Fig. 4 Survivors at Specified Ages for Each Sex (6) SINGAPORE, 1992

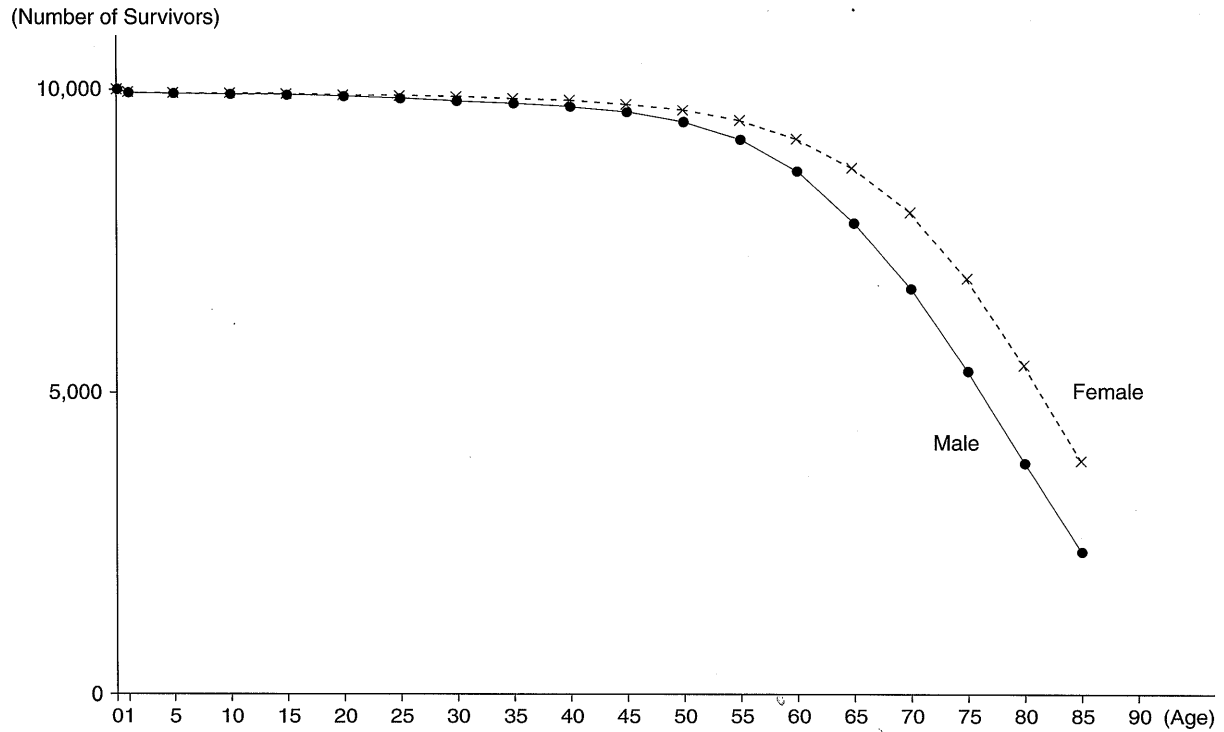
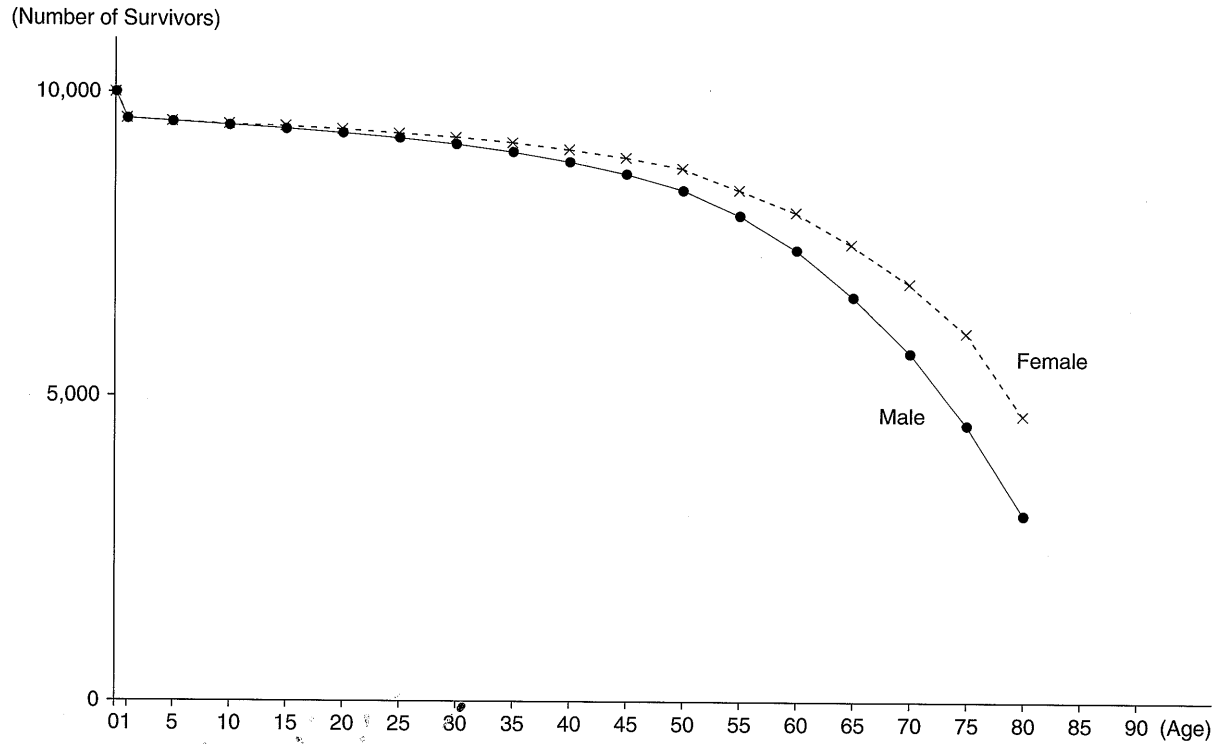


Fig. 4 Survivors at Specified Ages for Each Sex (7) THAILAND, 1991





### **3. Causes of Death**

### 3 – 1 Ten Leading Causes of Death

|                            |                     | Year | 1                                                    | 2                                                     | 3                                                    | 4                                         |
|----------------------------|---------------------|------|------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|-------------------------------------------|
| BRUNEI <sup>(1)</sup>      |                     | 1992 | Malignant Neoplasms                                  | Heart Diseases                                        | Accidents, Poisoning and Violence                    | Cerebrovascular Diseases                  |
| INDONESIA <sup>(2)</sup>   |                     | 1992 | Circulation System Diseases                          | Tuberculosis                                          | Respiratory Infection                                | Diarrhoea                                 |
| JAPAN <sup>(3)</sup>       |                     | 1992 | Malignant Neoplasms                                  | Diseases of Heart                                     | Cerebrovascular Diseases                             | Pneumonia and Bronchitis                  |
| MALAYSIA <sup>(4) a)</sup> | Peninsular Malaysia | 1992 | Heart Diseases and Diseases of Pulmonary Circulation | Certain Condition Originating in the Perinatal Period | Accidents                                            | Cerebrovascular Diseases                  |
|                            | Sabah               | 1992 | Septicemia                                           | Certain Condition Originating in the Perinatal Period | Heart Diseases and Diseases of Pulmonary Circulation | Malignant Neoplasm                        |
|                            | Sarawak             | 1992 | Heart Diseases and Diseases of Pulmonary Circulation | Certain Condition Originating in the Perinatal Period | Septicemia                                           | Malignant Neoplasm                        |
| PHILIPPINES <sup>(5)</sup> |                     | 1991 | Diseases of Heart                                    | Pneumonia                                             | Diseases of the Vascular System                      | Tuberculosis, All Forms                   |
| SINGAPORE <sup>(6)</sup>   |                     | 1992 | Cancer                                               | Heart Diseases                                        | Cerebrovascular Diseases                             | Pneumonia                                 |
| THAILAND <sup>(7) b)</sup> |                     | 1992 | Diseases of Heart                                    | Accidents and Poisoning                               | Malignant Neoplasm, All Forms                        | Hypertension and Cerebrovascular Diseases |

Source : (1) Ministry of Health  
 (2) Household Health Survey Indonesia  
 (3) *Vital Statistics Japan*, Ministry of Health and Welfare  
 (4) Information and Documentation System Unit, Ministry of Health  
 (5) *Philippine Health Statistics*, Health Intelligence Service, Department of Health  
 (6) National Registration Department, Singapore

(7) Health Statistics Division, Office of the Permanent Secretary, Ministry of Public Health

Note : a) Government hospitals only  
 b) First 10 leading cause groups of death according to ICD Basic Tabulation List, 9th Revision

| 5                                  | 6                              | 7                                           | 8                                              | 9                                           | 10                                         |
|------------------------------------|--------------------------------|---------------------------------------------|------------------------------------------------|---------------------------------------------|--------------------------------------------|
| Pneumonia                          | Hypertensive Diseases          | Congenital Anomalies                        | Conditions Originating in the Perinatal Period | Septicemia                                  | Diabetes Mellitus                          |
| Perinatal Period Diseases          | Gastroenteritis                | Other Infectious Diseases                   | Bronchitis, Emphysema, and Asthma              | Trauma, Poisoning, and Accidents            | Neoplasms                                  |
| Accidents, Poisoning and Violence  | Suicide                        | Nephritis, Nephrotic Syndrome & Nephrosis   | Chronic Liver Diseases & Cirrhosis of Liver    | Diabetes Mellitus                           | Hypertensive Diseases                      |
| Septicemia                         | Malignant Neoplasms            | Nephritis, Nephrotic Syndrome and Nephrosis | Congenital Anomalies                           | Symptoms, Signs and Ill-defined Conditions  | Pneumonia                                  |
| Pneumonia                          | Cerebrovascular Diseases       | Accidents                                   | Tuberculosis                                   | Nephritis, Nephrotic Syndrome and Nephrosis | Symptoms, Signs and Ill-defined Conditions |
| Cerebrovascular Diseases           | Accidents                      | Symptoms, Signs and Ill-defined Conditions  | Pneumonia                                      | Nephritis, Nephrotic Syndrome and Nephrosis | Congenital Anomalies                       |
| Malignant Neoplasms                | Accidents                      | Septicemia                                  | Diarrheal Diseases                             | Nephritis, Nephrotic Syndrome and Nephrosis | Respiratory Conditions of Fetus of Newborn |
| Accidents                          | Diabetes Mellitus              | Bronchitis, emphysema and Asthma            | Nephritis and Nephrosis                        | Congenital Anomalies                        | Septicemia                                 |
| Suicide, Homicide and Other Injury | Diseases of Liver and Pancreas | Pneumonia and Other Diseases of Lung        | Nephritis, Nephrotic Syndrome and Nephrosis    | Tuberculosis, All Forms                     | Paralysis, All Types                       |

[Brunei Darussalam]

## 3 – 2 Trends in the Leading Causes of Death

| Year  |                                   | 1983                            | 1984                            | 1985                            | 1986                            | 1987                            | 1988                            | 1989                            | 1990                            | 1991                            | 1992                            |
|-------|-----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Order |                                   |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                                 |
| No. 1 | Cause of Death                    | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Malignant Neoplasms             | Diseases of Heart               | Diseases of Heart               | Diseases of Heart               | Malignant Neoplasms             |
|       | Death Rate per 100,000 Population | 31.7                            | 32.0                            | 37.0                            | 39.8                            | 40.2                            | 43.1                            | 46.6                            | 54.6                            | 49.8                            | 37.3                            |
| No. 2 | Cause of Death                    | Malignant Neoplasms             | Malignant Neoplasms             | Diseases of Heart               | Malignant Neoplasms             | Malignant Neoplasms             | Diseases of Heart               | Malignant Neoplasms             | Malignant Neoplasms             | Malignant Neoplasms             | Diseases of Heart               |
|       | Death Rate per 100,000 Population | 25.5                            | 26.4                            | 32.4                            | 27.0                            | 35.5                            | 35.6                            | 45.0                            | 36.6                            | 41.0                            | 36.6                            |
| No. 3 | Cause of Death                    | Diseases of Heart               | Diseases of Heart               | Malignant Neoplasms             | Diseases of Heart               | Diseases of Heart               | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence |
|       | Death Rate per 100,000 Population | 24.5                            | 26.4                            | 28.8                            | 24.3                            | 32.1                            | 29.8                            | 24.9                            | 26.1                            | 38.0                            | 30.6                            |
| No. 4 | Cause of Death                    | Pneumonia                       | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Pneumonia                       | Cerebro-vascular Diseases       | Hypertensive Diseases           | Cerebro-vascular Diseases       |
|       | Death Rate per 100,000 Population | 15.4                            | 16.2                            | 18.0                            | 19.4                            | 15.0                            | 17.8                            | 22.1                            | 14.4                            | 15.3                            | 19.0                            |
| No. 5 | Cause of Death                    | Cerebro-vascular Diseases       | Congenital Anomalies            | Pneumonia                       | Pneumonia                       | Bronchitis Emphysema & Asthma   | Diabetes Mellitus               | Hypertensive Diseases           | Hypertensive Diseases           | Cerebro-vascular Diseases       | Pneumonia                       |
|       | Death Rate per 100,000 Population | 13.0                            | 13.0                            | 13.1                            | 12.4                            | 12.8                            | 12.4                            | 16.5                            | 11.7                            | 13.0                            | 12.3                            |

Source : Ministry of Health

[Indonesia]

3 – 2 Trends in the Leading Causes of Death (Contd.)

| Year  |                                   | 1972                                     | 1980                              | 1986                        | 1992                              |
|-------|-----------------------------------|------------------------------------------|-----------------------------------|-----------------------------|-----------------------------------|
| Order |                                   |                                          |                                   |                             |                                   |
| No. 1 | Cause of Death                    | Diarrhoea                                | Lower Respiratory Tract Infection | Diarrhoea                   | Circulation System Diseases       |
|       | Death Rate per 100,000 Population | 425.7                                    | 146.0                             | 84.5                        | 68.1                              |
| No. 2 | Cause of Death                    | Lower Respiratory Tract Infection        | Diarrhoea                         | Tuberculosis                | Tuberculosis                      |
|       | Death Rate per 100,000 Population | 331.1                                    | 137.9                             | 60.2                        | 40.6                              |
| No. 3 | Cause of Death                    | Tuberculosis                             | Cardio-vascular Diseases          | Diphtheria, Measles & Cough | Lower Respiratory Tract Infection |
|       | Death Rate per 100,000 Population | 165.6                                    | 73.0                              | 53.0                        | 37.9                              |
| No. 4 | Cause of Death                    | Cardiovascular Disorder & Nervous System | Tuberculosis                      | Tetanus                     | Diarrhoea                         |
|       | Death Rate per 100,000 Population | 141.9                                    | 61.7                              | 42.1                        | 30.8                              |
| No. 5 | Cause of Death                    | Tetanus                                  | Tetanus                           | Malaria                     | Perinatal Diseases                |
|       | Death Rate per 100,000 Population | 141.9                                    | 47.9                              | 23.9                        | 29.5                              |

Source : Household Health Survey in Indonesia

[Japan]

## 3 - 2 Trends in the Leading Causes of Death (Contd.)

| Year  |                                   | 1899                      | 1920                      | 1930                      | 1940                      | 1950                      | 1960                            | 1970                            | 1980                            | 1985                            | 1990                            | 1991                            | 1992                            |
|-------|-----------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Order |                                   |                           |                           |                           |                           |                           |                                 |                                 |                                 |                                 |                                 |                                 |                                 |
| No. 1 | Cause of Death                    | Pneumonia and Bronchitis  | Pneumonia and Bronchitis  | Gastro-enteritis          | Tuber-culosis             | Tuber-culosis             | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Malignant Neoplasms             | Malignant Neoplasms             | Malignant Neoplasms             | Malignant Neoplasms             |
|       | Death Rate per 100,000 Population | 206.1                     | 408.6                     | 221.4                     | 212.9                     | 146.4                     | 160.7                           | 175.8                           | 139.5                           | 156.1                           | 177.2                           | 181.7                           | 187.8                           |
| No. 2 | Cause of Death                    | Cerebro-vascular Diseases | Gastro-enteritis          | Pneumonia and Bronchitis  | Pneumonia and Bronchitis  | Cerebro-vascular Diseases | Malignant Neoplasms             | Malignant Neoplasms             | Malignant Neoplasms             | Diseases of Heart               | Diseases of Heart               | Diseases of Heart               | Diseases of Heart               |
|       | Death Rate per 100,000 Population | 170.5                     | 254.2                     | 200.1                     | 185.8                     | 127.1                     | 100.4                           | 116.3                           | 139.1                           | 117.3                           | 134.8                           | 137.2                           | 142.2                           |
| No. 3 | Cause of Death                    | Tuber-culosis             | Tuber-culosis             | Tuber-culosis             | Cerebro-vascular Diseases | Pneumonia and Bronchitis  | Diseases of Heart               | Diseases of Heart               | Diseases of Heart               | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       | Cerebro-vascular Diseases       |
|       | Death Rate per 100,000 Population | 155.7                     | 223.7                     | 185.6                     | 177.7                     | 93.2                      | 73.2                            | 86.7                            | 106.2                           | 112.2                           | 99.4                            | 96.2                            | 95.6                            |
| No. 4 | Cause of Death                    | Gastro-enteritis          | Influenza                 | Cerebro-vascular Diseases | Gastro-enteritis          | Gastro-enteritis          | Pneumonia and Bronchitis        | Accidents, Poisoning & Violence | Pneumonia and Bronchitis        | Pneumonia and Bronchitis        | Pneumonia and Bronchitis        | Pneumonia and Bronchitis        | Pneumonia and Bronchitis        |
|       | Death Rate per 100,000 Population | 149.7                     | 193.7                     | 162.8                     | 159.2                     | 82.4                      | 58.0                            | 42.5                            | 33.7                            | 42.7                            | 60.7                            | 62.0                            | 65.0                            |
| No. 5 | Cause of Death                    | Senility                  | Cerebro-vascular Diseases | Senility                  | Senility                  | Malignant Neoplasms       | Accidents, Poisoning & Violence | Pneumonia and Bronchitis        | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence | Accidents, Poisoning & Violence |
|       | Death Rate per 100,000 Population | 127.2                     | 157.6                     | 118.8                     | 124.5                     | 77.4                      | 49.3                            | 34.1                            | 25.1                            | 24.6                            | 26.9                            | 27.9                            | 28.1                            |

Source : Ministry of Health and Welfare

[Peninsular Malaysia]

## 3 - 2 Trends in the Leading Causes of Death (Contd.)

| Year  |                                   | 1980                      | 1985                                                  | 1986                                                  | 1987                                                  | 1988                                                  | 1989                                                  | 1990                                                  | 1991                                                  | 1992                                                  |
|-------|-----------------------------------|---------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| Order |                                   |                           |                                                       |                                                       |                                                       |                                                       |                                                       |                                                       |                                                       |                                                       |
| No. 1 | Cause of Death                    | Heart Diseases            | Heart Diseases and Diseases of Pulmonary Circulation  | Heart Diseases and Diseases of Pulmonary Circulation  | Heart Diseases and Diseases of Pulmonary Circulation  | Heart Diseases and Diseases of Pulmonary Circulation  | Heart Diseases and Diseases of Pulmonary Circulation  | Heart Diseases and Diseases of Pulmonary Circulation  | Heart Diseases and Diseases of Pulmonary Circulation  | Heart Diseases and Diseases of Pulmonary Circulation  |
|       | Death Rate per 100,000 Population | 25.0                      | 27.5                                                  | 26.3                                                  | 23.6                                                  | 24.4                                                  | 23.8                                                  | 23.8                                                  | 19.2                                                  | 22.1                                                  |
| No. 2 | Cause of Death                    | Diseases of Early Infancy | Certain Condition Originating in the Perinatal Period | Accidents                                             | Certain Condition Originating in the Perinatal Period | Certain Condition Originating in the Perinatal Period | Certain Condition Originating in the Perinatal Period | Certain Condition Originating in the Perinatal Period | Certain Condition Originating in the Perinatal Period | Certain Condition Originating in the Perinatal Period |
|       | Death Rate per 100,000 Population | 22.7                      | 18.9                                                  | 15.1                                                  | 15.1                                                  | 14.2                                                  | 13.4                                                  | 14.1                                                  | 11.6                                                  | 13.3                                                  |
| No. 3 | Cause of Death                    | Accidents                 | Accidents                                             | Certain Condition Originating in the Perinatal Period | Accidents                                             | Cerebrovascular Diseases                              | Cerebrovascular Diseases                              | Cerebrovascular Diseases                              | Accidents                                             | Accidents                                             |
|       | Death Rate per 100,000 Population | 20.0                      | 17.8                                                  | 14.7                                                  | 13.1                                                  | 11.9                                                  | 12.5                                                  | 12.7                                                  | 11.4                                                  | 13.2                                                  |
| No. 4 | Cause of Death                    | Cerebrovascular Diseases  | Cerebrovascular Diseases                              | Malignant Neoplasms                                   | Malignant Neoplasms                                   | Accidents                                             | Accidents                                             | Accidents                                             | Cerebrovascular Diseases                              | Cerebrovascular Diseases                              |
|       | Death Rate per 100,000 Population | 12.1                      | 12.2                                                  | 11.0                                                  | 11.4                                                  | 11.9                                                  | 12.5                                                  | 12.7                                                  | 11.4                                                  | 13.1                                                  |
| No. 5 | Cause of Death                    | Malignant Neoplasms       | Malignant Neoplasms                                   | Cerebrovascular Diseases                              | Cerebrovascular Diseases                              | Malignant Neoplasms                                   | Malignant Neoplasms                                   | Malignant Neoplasms                                   | Septicemia                                            | Septicemia                                            |
|       | Death Rate per 100,000 Population | 11.9                      | 11.3                                                  | 10.9                                                  | 11.1                                                  | 11.8                                                  | 12.4                                                  | 12.0                                                  | 9.7                                                   | 11.2                                                  |

Source : Annual Report-1980, 1985-1992 of Ministry of Health Malaysia

[Philippines]

## 3-2 Trends in the Leading Causes of Death (Contd.)

| Year  |                                   | 1960                       | 1965                       | 1970                        | 1975                        | 1980                        | 1985                        | 1986                        | 1987                        | 1988                        | 1989                        | 1990                        | 1991                        |
|-------|-----------------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Order |                                   |                            |                            |                             |                             |                             |                             |                             |                             |                             |                             |                             |                             |
| No. 1 | Cause of Death                    | Pneumonia                  | Pneumonia                  | Pneumonia                   | Pneumonia                   | Pneumonia                   | Pneumonia                   | Pneumonia                   | Pneumonia                   | Pneumonia                   | Pneumonia                   | Diseases of Heart           | Diseases of Heart           |
|       | Death Rate per 100,000 Population | 100.4                      | 83.4                       | 118.2                       | 102.0                       | 93.6                        | 96.7                        | 90.4                        | 91.9                        | 80.8                        | 77.0                        | 74.4                        | 72.9                        |
| No. 2 | Cause of Death                    | Tuberculosis (All Forms)   | Respiratory Tuberculosis   | Tuberculosis (All Forms)    | Tuberculosis (All Forms)    | Diseases of Heart           | Diseases of Heart           | Diseases of Heart           | Diseases of Heart           | Diseases of Heart           | Diseases of Heart           | Pneumonia                   | Pneumonia                   |
|       | Death Rate per 100,000 Population | 92.1                       | 83.4                       | 80.1                        | 69.2                        | 60.8                        | 66.3                        | 69.9                        | 67.7                        | 69.1                        | 74.6                        | 66.3                        | 57.7                        |
| No. 3 | Cause of Death                    | Gastro-enteritis & Colitis | Gastro-enteritis & Colitis | Diseases of Vascular System | Diseases of Heart           | Tuberculosis (All Forms)    | Tuberculosis (All Forms)    | Tuberculosis (All Forms)    | Diseases of Vascular System | Diseases of Vascular System | Diseases of Vascular System | Diseases of Vascular System | Diseases of Vascular System |
|       | Death Rate per 100,000 Population | 60.5                       | 46.0                       | 35.8                        | 56.6                        | 59.6                        | 57.9                        | 54.6                        | 52.1                        | 53.1                        | 56.1                        | 54.2                        | 51.8                        |
| No. 4 | Cause of Death                    | Bronchitis                 | Bronchitis                 | Gastro-enteritis & Colitis  | Diseases of Vascular System | Diseases of Vascular System | Diseases of Vascular System | Diseases of Vascular System | Tuberculosis (All Forms)    | Tuberculosis (All Forms)    | Tuberculosis (All Forms)    | Tuberculosis (All Forms)    | Tuberculosis (All Forms)    |
|       | Death Rate per 100,000 Population | 57.2                       | 43.1                       | 35.0                        | 31.8                        | 43.8                        | 49.7                        | 52.5                        | 50.0                        | 46.0                        | 43.8                        | 39.1                        | 35.9                        |
| No. 5 | Cause of Death                    | Beri-beri                  | Beri-beri                  | Diseases of Heart           | Malignant Neoplasms         | Diarrhoea                   | Malignant Neoplasms         | Malignant Neoplasms         | Malignant Neoplasms         | Malignant Neoplasms         | Malignant Neoplasms         | Malignant Neoplasms         | Malignant Neoplasms         |
|       | Death Rate per 100,000 Population | 54.4                       | 32.8                       | 34.0                        | 29.4                        | 33.2                        | 33.2                        | 32.6                        | 35.5                        | 36.1                        | 36.5                        | 35.7                        | 35.2                        |

Source : *Philippine Health Statistics, 1960-1991*, Health Intelligence Service



[Singapore]

## 3 - 2 Trends in the Leading Causes of Death (Contd.)

| Year  |                                   | 1950                      | 1955              | 1960              | 1970                     | 1980                     | 1985                     | 1987                     | 1988                     | 1989 <sup>a)</sup>       | 1990 <sup>a)</sup>       | 1991 <sup>a)</sup>       | 1992 <sup>a)</sup>       |
|-------|-----------------------------------|---------------------------|-------------------|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Order |                                   |                           |                   |                   |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| No. 1 | Cause of Death                    | Tuberculosis              | Pneumonia         | Cancer            | Cancer                   | Diseases of Heart        | Diseases of Heart        | Cancer                   | Diseases of Heart        | Diseases of Heart        | Diseases of Heart        | Cancer                   | Cancer                   |
|       | Death Rate per 100,000 Population | 145                       | 79                | 62                | 77                       | 111                      | 118                      | 120                      | 121                      | 121                      | 117                      | 116                      | 117                      |
| No. 2 | Cause of Death                    | Infantile Convulsions     | Tuberculosis      | Pneumonia         | Diseases of Heart        | Cancer                   | Cancer                   | Diseases of Heart        | Cancer                   | Cancer                   | Cancer                   | Diseases of Heart        | Diseases of Heart        |
|       | Death Rate per 100,000 Population | 133                       | 76                | 56                | 76                       | 106                      | 113                      | 119                      | 121                      | 117                      | 115                      | 107                      | 115                      |
| No. 3 | Cause of Death                    | Pneumonia                 | Diseases of Heart | Diseases of Heart | Cerebro-vascular Disease | Cerebro-vascular Disease | Cerebro-vascular Disease | Cerebro-vascular Disease | Cerebro-vascular Disease | Cerebro-vascular Disease | Cerebro-vascular Disease | Cerebro-vascular Disease | Cerebro-vascular Disease |
|       | Death Rate per 100,000 Population | 131                       | 56                | 49                | 50                       | 60                       | 55                       | 51                       | 60                       | 56                       | 58                       | 59                       | 57                       |
| No. 4 | Cause of Death                    | Gastro-enteritis          | Gastro-enteritis  | Tuberculosis      | Accidents                | Pneumonia                | Pneumonia                | Pneumonia                | Pneumonia                | Pneumonia                | Pneumonia                | Pneumonia                | Pneumonia                |
|       | Death Rate per 100,000 Population | 108                       | 54                | 39                | 41                       | 47                       | 50                       | 38                       | 39                       | 40                       | 41                       | 44                       | 46                       |
| No. 5 | Cause of Death                    | Diseases of Early Infancy | Cancer            | Gastro-enteritis  | Pneumonia                | Accidents                | Accidents                | Accidents                | Accidents                | Accidents                | Accidents                | Accidents                | Accidents                |
|       | Death Rate per 100,000 Population | 79                        | 50                | 33                | 41                       | 37                       | 42                       | 36                       | 36                       | 32                       | 31                       | 31                       | 31                       |

Source : National Registration Department

Note : a) Rates refer to Singapore residents only

[Thailand]

## 3-2 Trends in the Leading Causes of Death (Contd.)

| Year  |                                   | 1930                       | 1940                       | 1950                       | 1960                       | 1970                       | 1980                       | 1985                       | 1987                                                                         | 1988 | 1989                                                                          | 1990                | 1991 | 1992                                       |
|-------|-----------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------|---------------------|------|--------------------------------------------|
| Order |                                   |                            |                            |                            |                            |                            |                            |                            |                                                                              |      |                                                                               |                     |      |                                            |
| No. 1 | Cause of Death                    | Malaria                    | Malaria                    | Malaria                    | Gastro-enteritis           | Accidents                  | Accidents                  | Diseases of Heart          | Diseases of Pulmonary Circulation and Other Forms of Heart Diseases          |      |                                                                               |                     |      | Diseases of Heart                          |
|       | Death Rate per 100,000 Population | 342.4                      | 277.8                      | 195.0                      | 38.7                       | 27.2                       | 35.9                       | 36.4                       | 40.3                                                                         | 42.1 | 47.5                                                                          | 49.6                | 52.5 | 56.0                                       |
| No. 2 | Cause of Death                    | Gastro-enteritis           | Gastro-enteritis           | T.B. of Respiratory System | T.B. of Respiratory System | T.B. of Respiratory System | Diseases of Heart          | Accidents and Poisoning    | Diseases of Digestive System Other than Oral Cavity, Salivary Gland and Jaws |      | Other Accidents Including Late Effect                                         |                     |      | Accidents and Poisoning                    |
|       | Death Rate per 100,000 Population | 159.8                      | 168.8                      | 65.5                       | 34.7                       | 20.8                       | 31.4                       | 28.9                       | 19.8                                                                         | 18.7 | 21.5                                                                          | 25.3                | 25.8 | 48.5                                       |
| No. 3 | Cause of Death                    | T.B. of Respiratory System | Dysentery                  | Gastro-enteritis           | Pneumonia                  | Diarrhoea                  | Malignant Neoplasms        | Malignant Neoplasms        | Malignant Neoplasms of Other and Unspecified Sites                           |      |                                                                               |                     |      | Malignant Neoplasm, All Forms              |
|       | Death Rate per 100,000 Population | 79.2                       | 110.0                      | 66.1                       | 32.5                       | 17.6                       | 23.6                       | 27.0                       | 17.8                                                                         | 18.7 | 20.2                                                                          | 22.0                | 21.9 | 43.5                                       |
| No. 4 | Cause of Death                    | Dysentery                  | T.B. of Respiratory System | Pneumonia                  | Malaria                    | Diseases of Heart          | T.B. of Respiratory System | T.B. of Respiratory System | Other Accident Including Late Effect                                         |      | Diseases of Digestive System Other than Oral Cavity, Salivary Glands and Jaws |                     |      | Hypertension and Cerebro-vascular Diseases |
|       | Death Rate per 100,000 Population | 74.3                       | 80.9                       | 39.4                       | 30.2                       | 15.3                       | 14.3                       | 10.3                       | 16.4                                                                         | 18.7 | 19.1                                                                          | 18.4                | 18.5 | 16.9                                       |
| No. 5 | Cause of Death                    | Pneumonia                  | Pneumonia                  | Dysentery                  | Diseases of Heart          | Pneumonia                  | Pneumonia                  | Pneumonia                  | Diseases of Respiratory System Other than the Upper Respiratory Tract        |      |                                                                               | Transport Accidents |      | Suicide, Homicide and Other Injury         |
|       | Death Rate per 100,000 Population | 22.0                       | 48.7                       | 32.8                       | 19.0                       | 14.8                       | 10.0                       | 7.4                        | 12.6                                                                         | 12.6 | 13.8                                                                          | 15.2                | 18.3 | 13.3                                       |

Source : Ministry of Public Health

### 3 – 3 Deaths and Death Rates by Causes (ICD-9)

|                             | Basic Tabulation List |     |                      |       | 01 – 07                           |      | 010     |      | 011                            |      | 012, 014                             |      |
|-----------------------------|-----------------------|-----|----------------------|-------|-----------------------------------|------|---------|------|--------------------------------|------|--------------------------------------|------|
|                             | Year                  | Sex | All Causes           |       | Infectious and Parasitic Diseases |      | Cholera |      | Typhoid and Paratyphoid Fevers |      | Dysentery (Amoebiasis and Bacillary) |      |
|                             |                       |     | Number               | Rate  | Number                            | Rate | Number  | Rate | Number                         | Rate | Number                               | Rate |
| BRUNEI <sup>(1)</sup>       | 1992                  | T   | 887                  | 331.2 | 31                                | 11.6 | —       | —    | —                              | —    | —                                    | —    |
|                             |                       | M   | 534                  | 377.9 | 22                                | 15.6 | —       | —    | —                              | —    | —                                    | —    |
|                             |                       | F   | 352                  | 278.3 | 9                                 | 7.1  | —       | —    | —                              | —    | —                                    | —    |
| INDONESIA <sup>(2) a)</sup> | 1992                  | T   | 1,241                |       |                                   |      |         |      | 22                             |      |                                      |      |
|                             |                       | M   | 734                  |       |                                   |      |         |      | 7                              |      |                                      |      |
|                             |                       | F   | 507                  |       |                                   |      |         |      | 15                             |      |                                      |      |
| JAPAN <sup>(3)</sup>        | 1992                  | T   | 856,643              | 693.8 | 13,396                            | 10.8 | —       | —    | —                              | —    | 3                                    | 0.0  |
|                             |                       | M   | 465,544              | 768.3 |                                   |      | —       | —    | —                              | —    | 3                                    | 0.0  |
|                             |                       | F   | 391,099              | 622.0 |                                   |      | —       | —    | —                              | —    | —                                    | —    |
| MALAYSIA <sup>(4) a)</sup>  | 1991                  | T   | 28,257               | 550.2 | 1,570                             | 11.1 | 2       | 0.0  | 9                              | 0.1  | 1                                    | 0.0  |
| Peninsular Malaysia         |                       | T   | 3,849                | 214.9 |                                   |      |         |      |                                |      |                                      |      |
| Sabah                       |                       | T   | 3,869                | 234.7 |                                   |      |         |      |                                |      |                                      |      |
| Sarawak                     |                       | T   |                      |       |                                   |      |         |      |                                |      |                                      |      |
| PHILIPPINES <sup>(5)</sup>  | 1991                  | T   | 298,063              | 467.7 | 41,274                            | 64.8 | 97      | 0.1  | 1,080                          | 1.7  | 443                                  | 0.7  |
|                             |                       | M   | 177,821              | 555.2 | 25,526                            | 79.7 | 56      | 0.2  | 645                            | 2.0  | 258                                  | 0.8  |
|                             |                       | F   | 120,242              | 379.3 | 15,748                            | 49.7 | 41      | 0.1  | 435                            | 1.4  | 185                                  | 0.6  |
| SINGAPORE <sup>(6) b)</sup> | 1992                  | T   | 14,337 <sup>c)</sup> | 471.9 | 355                               | 11.3 | 1       | 0.0  | —                              | —    | —                                    | —    |
|                             |                       | M   | 8,145                | 525.0 | 199                               | 12.8 | —       | —    | —                              | —    | —                                    | —    |
|                             |                       | F   | 6,188                | 420.2 | 156                               | 10.6 | 1       | 0.1  | —                              | —    | —                                    | —    |
| THAILAND <sup>(7)</sup>     | 1992                  | T   | 275,313              | 479.8 | 12,263                            | 21.4 | 10      | 0.0  | 108                            | 0.2  | 24                                   | 0.0  |
|                             |                       | M   | 162,546              | 565.6 | 7,495                             | 26.1 | 8       | 0.0  | 63                             | 0.2  | 18                                   | 0.1  |
|                             |                       | F   | 112,767              | 393.8 | 4,768                             | 16.7 | 2       | 0.0  | 45                             | 0.2  | 6                                    | 0.0  |

Source : (1) Ministry of Health  
 (2) Directorate General of Medical Care, Ministry of Health  
 Based on 10-day sample of discharges from hospital for each quarter  
 (3) *Vital Statistics Japan*, Ministry of Health and Welfare  
 (4) *Vital Statistics Peninsular Malaysia, Sabah & Sarawak*, Department of Statistics  
 (5) *Philippine Health Statistics*, Department of Health  
 (6) *Report on Registration of Birth and Deaths*, National Registration Department  
 (7) Ministry of Public Health (official data)

Note : a) Medical certified deaths only  
 b) Rates refer to Singapore residents only  
 c) Includes unknown sex

3 – 3 Deaths and Death Rates by Causes (ICD-9) (Contd.)

|                                                     | Year | Sex | 013, 015, 016, 019                   |      | 020 – 021                          |      | 022 – 025, 029              |      | 033        |      | 034            |      |
|-----------------------------------------------------|------|-----|--------------------------------------|------|------------------------------------|------|-----------------------------|------|------------|------|----------------|------|
|                                                     |      |     | Other Intestinal Infectious Diseases |      | Tuberculosis of Respiratory System |      | Tuberculosis of Other Forms |      | Diphtheria |      | Whooping Cough |      |
|                                                     |      |     | Number                               | Rate | Number                             | Rate | Number                      | Rate | Number     | Rate | Number         | Rate |
| BRUNEI                                              | 1992 | T   | —                                    |      | 10                                 | 3.7  | —                           |      | —          |      | —              |      |
|                                                     |      | M   | —                                    |      | 8                                  | 5.7  | —                           |      | —          |      | —              |      |
|                                                     |      | F   | —                                    |      | 2                                  | 1.6  | —                           |      | —          |      | —              |      |
| INDONESIA                                           | 1992 | T   | 25                                   |      | 67                                 |      | 1                           |      |            |      | —              |      |
|                                                     |      | M   | 18                                   |      | 45                                 |      | —                           |      |            |      | —              |      |
|                                                     |      | F   | 7                                    |      | 22                                 |      | 1                           |      |            |      | —              |      |
| JAPAN                                               | 1992 | T   | 758                                  | 0.6  | 3,133                              | 2.5  | 214                         | 0.2  | —          |      | 1              | 0.0  |
|                                                     |      | M   | 324                                  | 0.5  | 2,394                              | 4.0  | 120                         | 0.2  | —          |      | 1              | 0.0  |
|                                                     |      | F   | 434                                  | 0.7  | 739                                | 1.2  | 94                          | 0.1  | —          |      | —              |      |
| MALAYSIA<br>Peninsular Malaysia<br>Sabah<br>Sarawak | 1991 | T   | 75                                   | 0.5  | 264                                | 1.9  | 38                          | 0.3  | 1          | 0.0  | 2              | 0.0  |
|                                                     |      | T   |                                      |      |                                    |      |                             |      |            |      |                |      |
|                                                     |      | T   |                                      |      |                                    |      |                             |      |            |      |                |      |
| PHILIPPINES                                         | 1991 | T   | 3,877                                | 6.1  | 22,299                             | 35.0 | 515                         | 0.8  | 62         | 0.1  | 9              | 0.0  |
|                                                     |      | M   | 2,276                                | 7.1  | 14,383                             | 44.9 | 299                         | 0.9  | 29         | 0.1  | 6              | 0.0  |
|                                                     |      | F   | 1,601                                | 5.0  | 7,916                              | 25.0 | 216                         | 0.7  | 33         | 0.1  | 3              | 0.0  |
| SINGAPORE                                           | 1992 | T   | 20                                   | 0.6  | 96                                 | 3.2  | 5                           | 0.1  | —          |      | —              |      |
|                                                     |      | M   | 7                                    | 0.4  | 65                                 | 4.4  | 5                           | 0.2  | —          |      | —              |      |
|                                                     |      | F   | 13                                   | 0.9  | 31                                 | 2.0  | —                           |      | —          |      | —              |      |
| THAILAND                                            | 1992 | T   | 1,242                                | 2.2  | 3,494                              | 6.1  | 101                         | 0.2  | 14         | 0.0  | 2              | 0.0  |
|                                                     |      | M   | 677                                  | 2.4  | 2,390                              | 8.3  | 72                          | 0.3  | 9          | 0.0  | 2              | 0.0  |
|                                                     |      | F   | 565                                  | 2.0  | 1,104                              | 3.9  | 29                          | 0.1  | 5          | 0.0  | —              |      |

(rate per 100,000 population)

| 036                     |      | 037     |      | 038        |      | 030 - 032, 035, 039      |      | 040                 |      | 042     |      | 046             |      | 047    |      |
|-------------------------|------|---------|------|------------|------|--------------------------|------|---------------------|------|---------|------|-----------------|------|--------|------|
| Meningococcal Infection |      | Tetanus |      | Septicemia |      | Other Bacterial Diseases |      | Acute Poliomyelitis |      | Measles |      | Viral Hepatitis |      | Rabies |      |
| Number                  | Rate | Number  | Rate | Number     | Rate | Number                   | Rate | Number              | Rate | Number  | Rate | Number          | Rate | Number | Rate |
| —                       |      | —       |      | 21         | 7.8  | —                        |      | —                   |      | —       |      | —               |      | —      |      |
| —                       |      | —       |      | 14         | 9.9  | —                        |      | —                   |      | —       |      | —               |      | —      |      |
| —                       |      | —       |      | 7          | 5.5  | —                        |      | —                   |      | —       |      | —               |      | —      |      |
| —                       |      | 23      |      | 18         |      | 2                        |      | —                   |      | —       |      | 85              |      | —      |      |
| —                       |      | 19      |      | 11         |      | 1                        |      | —                   |      | —       |      | 42              |      | —      |      |
| —                       |      | 4       |      | 7          |      | 1                        |      | —                   |      | —       |      | 43              |      | —      |      |
| 1                       | 0.0  | 17      | 0.0  | 4,037      | 3.3  | 397                      | 0.3  | —                   |      | 14      | 0.0  | 1,928           | 1.6  | —      |      |
| 1                       | 0.0  | 11      | 0.0  | 1,883      | 3.1  | 204                      | 0.3  | —                   |      | 11      | 0.0  | 1,134           | 1.9  | —      |      |
| —                       |      | 6       | 0.0  | 2,154      | 3.4  | 193                      | 0.3  | —                   |      | 3       | 0.0  | 794             | 1.3  | —      |      |
| 4                       | 0.0  | 9       | 0.1  | 937        | 6.6  | 17                       | 0.1  | —                   |      | 3       | 0.0  | 18              | 0.1  | 1      | 0.0  |
| 163                     | 0.2  | 1,022   | 1.6  | 5,992      | 9.4  | 81                       | 0.1  | 14                  | 0.0  | 2,228   | 3.5  | 772             | 1.2  | 465    | 0.7  |
| 82                      | 0.3  | 741     | 2.3  | 3,352      | 10.5 | 48                       | 0.1  | 11                  | 0.0  | 1,161   | 3.6  | 497             | 1.6  | 308    | 1.0  |
| 81                      | 0.3  | 281     | 0.9  | 2,640      | 8.3  | 33                       | 0.1  | 3                   | 0.0  | 1,067   | 3.4  | 275             | 0.9  | 157    | 0.5  |
| 1                       | 0.0  | —       |      | 139        | 4.7  | 4                        | 0.1  | —                   |      | —       |      | 36              | 1.1  | —      |      |
| 1                       | 0.1  | —       |      | 58         | 3.6  | 3                        | 0.2  | —                   |      | —       |      | 21              | 1.3  | —      |      |
| —                       |      | —       |      | 81         | 5.8  | 1                        | 0.1  | —                   |      | —       |      | 15              | 0.9  | —      |      |
| 2                       | 0.0  | 170     | 0.3  | 4,360      | 7.6  | 22                       | 0.0  | 12                  | 0.0  | 22      | 0.0  | —               |      | 107    | 0.2  |
| —                       |      | 109     | 0.4  | 2,369      | 8.2  | 12                       | 0.0  | 5                   | 0.0  | 13      | 0.0  | —               |      | 71     | 0.2  |
| 2                       | 0.0  | 61      | 0.2  | 1,991      | 7.0  | 10                       | 0.0  | 7                   | 0.0  | 9       | 0.0  | —               |      | 36     | 0.1  |

### 3 – 3 Deaths and Death Rates by Causes (ICD-9) (Contd.)

|                                                     | Year | Sex | 279.5 <sup>a)</sup>  |      | 065.4 <sup>a)</sup>      |      | 061 <sup>a)</sup> |      | 044, 045                             |      | 041, 043, 048, 049   |      | 052     |      |
|-----------------------------------------------------|------|-----|----------------------|------|--------------------------|------|-------------------|------|--------------------------------------|------|----------------------|------|---------|------|
|                                                     |      |     | AIDS (HIV)           |      | Dengue Hemorrhagic Fever |      | Dengue            |      | Other Arthropod-borne Viral Diseases |      | Other Viral Diseases |      | Malaria |      |
|                                                     |      |     | Number               | Rate | Number                   | Rate | Number            | Rate | Number                               | Rate | Number               | Rate | Number  | Rate |
| BRUNEI                                              | 1992 | T   | —                    |      | —                        |      | —                 |      | —                                    |      | —                    |      | —       |      |
|                                                     |      | M   | —                    |      | —                        |      | —                 |      | —                                    |      | —                    |      | —       |      |
|                                                     |      | F   | —                    |      | —                        |      | —                 |      | —                                    |      | —                    |      | —       |      |
| INDONESIA                                           | 1992 | T   | 144 <sup>b)</sup>    |      |                          |      |                   |      |                                      |      | 9                    |      | 11      |      |
|                                                     |      | M   | 122                  |      |                          |      |                   |      |                                      |      | 4                    |      | 6       |      |
|                                                     |      | F   | 20                   |      |                          |      |                   |      |                                      |      | 5                    |      | 5       |      |
| JAPAN                                               | 1992 | T   | 61 <sup>(8) c)</sup> | 0.0  | —                        |      | —                 |      | 1                                    | 0.0  | 350                  | 0.3  | —       |      |
|                                                     |      | M   |                      |      | —                        |      | —                 |      | 1                                    | 0.0  | 172                  | 0.3  | —       |      |
|                                                     |      | F   |                      |      | —                        |      | —                 |      | —                                    |      | 178                  | 0.3  | —       |      |
| MALAYSIA<br>Peninsular Malaysia<br>Sabah<br>Sarawak | 1991 | T   | —                    |      | —                        |      | 26                | 0.2  | 1                                    | 0.0  | 48                   | 0.3  | 27      | 0.2  |
|                                                     |      | T   |                      |      |                          |      |                   |      |                                      |      |                      |      |         |      |
|                                                     |      | T   |                      |      |                          |      |                   |      |                                      |      |                      |      |         |      |
| PHILIPPINES                                         | 1991 | T   | 9                    | 0.0  | 401                      | 0.6  | —                 |      | 60                                   | 0.1  | 116                  | 0.2  | 924     | 1.5  |
|                                                     |      | M   | 7                    | 0.0  | 213                      | 0.7  | —                 |      | 37                                   | 0.1  | 82                   | 0.3  | 628     | 2.0  |
|                                                     |      | F   | 2                    | 0.0  | 188                      | 0.6  | —                 |      | 23                                   | 0.1  | 34                   | 0.1  | 296     | 0.9  |
| SINGAPORE                                           | 1992 | T   | 13                   | 0.5  | 8                        | 0.2  | —                 |      | —                                    |      | 13                   | 0.4  | 1       | 0.0  |
|                                                     |      | M   | 13                   | 0.9  | 4                        | 0.3  | —                 |      | —                                    |      | 9                    | 0.5  | 1       | 0.0  |
|                                                     |      | F   | —                    |      | 4                        | 0.1  | —                 |      | —                                    |      | 4                    | 0.3  | —       |      |
| THAILAND                                            | 1992 | T   | 248                  | 0.4  | 259                      | 0.4  | 1                 | 0.0  | 2                                    | 0.0  | 50                   | 0.1  | 1,051   | 1.8  |
|                                                     |      | M   | 224                  | 0.8  | 129                      | 0.4  | —                 |      | 2                                    | 0.0  | 30                   | 0.1  | 726     | 2.5  |
|                                                     |      | F   | 24                   | 0.1  | 130                      | 0.5  | 1                 | 0.0  | —                                    |      | 20                   | 0.1  | 325     | 1.1  |

Source: (8) Committee of AIDS Surveillance, Ministry of Health and Welfare

Note : a) Four-digit Subcategories  
b) Includes unknown sex  
c) Figures excluding hemophiliacs

(rate per 100,000 population)

| 06                | Rest of 01 – 07                         |      | 08 – 14             |       | 091                           |      | 093                         |      | 094                                                          |      | 095                                              |      | 101                                              |      |
|-------------------|-----------------------------------------|------|---------------------|-------|-------------------------------|------|-----------------------------|------|--------------------------------------------------------------|------|--------------------------------------------------|------|--------------------------------------------------|------|
| Venereal Diseases | Other Infectious and Parasitic Diseases |      | Malignant Neoplasms |       | Malignant Neoplasm of Stomach |      | Malignant Neoplasm of Colon |      | Malignant Neoplasm of Rectum, Rectosigmoid Junction and Anus |      | Malignant Neoplasm of Liver Specified as Primary |      | Malignant Neoplasm of Trachea, Bronchus and Lung |      |
| Number Rate       | Number                                  | Rate | Number              | Rate  | Number                        | Rate | Number                      | Rate | Number                                                       | Rate | Number                                           | Rate | Number                                           | Rate |
| —                 | —                                       |      | 100                 | 37.3  | 10                            | 3.7  | —                           |      | 3                                                            | 1.1  | 7                                                | 2.6  | 25                                               | 9.3  |
| —                 | —                                       |      | 53                  | 37.5  | 6                             | 4.2  | —                           |      | 3                                                            | 2.1  | 6                                                | 4.2  | 16                                               | 11.3 |
| —                 | —                                       |      | 47                  | 37.2  | 4                             | 3.2  | —                           |      | —                                                            |      | 1                                                | 0.8  | 9                                                | 7.1  |
| —                 | 1                                       |      | 65                  |       | 3                             |      | 2                           |      | 2                                                            |      | 12                                               |      | 9                                                |      |
| —                 | 1                                       |      | 33                  |       | 3                             |      | 1                           |      | —                                                            |      | 10                                               |      | 5                                                |      |
| —                 | —                                       |      | 32                  |       | 0                             |      | 1                           |      | 2                                                            |      | 2                                                |      | 4                                                |      |
| 26 0.0            | 2,455                                   | 2.0  | 231,917             | 187.8 | 48,041                        | 38.9 | 17,382                      | 14.1 | 10,090                                                       | 8.2  | 25,771                                           | 20.9 | 40,163                                           | 32.5 |
| 20 0.0            | 1,597                                   | 2.6  | 139,674             | 230.5 | 30,507                        | 50.3 | 8,804                       | 14.5 | 6,157                                                        | 10.2 | 18,907                                           | 31.2 | 29,223                                           | 48.2 |
| 6 0.0             | 858                                     | 1.4  | 92,243              | 146.7 | 17,534                        | 27.9 | 8,578                       | 13.6 | 3,933                                                        | 6.3  | 6,864                                            | 10.9 | 10,940                                           | 17.4 |
| 3 0.0             | 78                                      | 0.6  | 3,277               | 23.2  | 203                           | 1.4  | 149                         | 1.1  | 99                                                           | 0.7  | 259                                              | 1.8  | 657                                              | 4.7  |
| 2 0.0             | 643                                     | 1.0  | 22,307              | 35.0  | 1,319                         | 2.1  | 428                         | 0.7  | 460                                                          | 0.7  | —                                                |      | 3,683                                            | 5.8  |
| 1 0.0             | 406                                     | 1.3  | 12,001              | 37.5  | 757                           | 2.4  | 229                         | 0.7  | 250                                                          | 0.8  | —                                                |      | 2,680                                            | 8.4  |
| 1 0.0             | 237                                     | 0.7  | 10,306              | 32.5  | 562                           | 1.8  | 199                         | 0.6  | 210                                                          | 0.7  | —                                                |      | 1,003                                            | 3.2  |
| 2 0.1             | 16                                      | 0.5  | 3,456 <sup>b)</sup> | 116.1 | 346                           | 11.8 | 323                         | 11.0 | 133                                                          | 4.5  | 110                                              | 3.6  | 814 <sup>b)</sup>                                | 27.4 |
| 1 0.1             | 11                                      | 0.6  | 2,022               | 135.1 | 229                           | 15.4 | 141                         | 9.3  | 80                                                           | 5.3  | 91                                               | 5.8  | 584                                              | 39.1 |
| 1 0.1             | 5                                       | 0.4  | 1,433               | 98.1  | 117                           | 8.2  | 182                         | 12.8 | 53                                                           | 3.7  | 19                                               | 1.3  | 229                                              | 15.8 |
| 11 0.0            | 951                                     | 1.7  | 24,959              | 43.5  | 349                           | 0.6  | 815                         | 1.4  | 25                                                           | 0.0  | 4,513                                            | 7.9  | 1,926                                            | 3.4  |
| 7 0.0             | 559                                     | 1.9  | 14,723              | 51.2  | 233                           | 0.8  | 489                         | 1.7  | 18                                                           | 0.0  | 3,108                                            | 10.8 | 1,369                                            | 4.8  |
| 4 0.0             | 392                                     | 1.4  | 10,236              | 35.7  | 116                           | 0.4  | 326                         | 1.1  | 7                                                            | 0.0  | 1,405                                            | 4.9  | 557                                              | 1.9  |

## 3 – 3 Deaths and Death Rates by Causes (ICD-9) (Contd.)

|                                                     | Year | Sex | 113                                 |      | 120                                |      | 122                                                 |      | Rest of (08 – 13)                 |      | 141      |      | 140, 149                                                     |      |
|-----------------------------------------------------|------|-----|-------------------------------------|------|------------------------------------|------|-----------------------------------------------------|------|-----------------------------------|------|----------|------|--------------------------------------------------------------|------|
|                                                     |      |     | Malignant Neoplasm of Female Breast |      | Malignant Neoplasm of Cervix Uteri |      | Malignant Neoplasm of Uterus, Other and Unspecified |      | Malignant Neoplasm of Other Sites |      | Leukemia |      | Other Malignant Neoplasm of Lymphatic and Hemopoietic Tissue |      |
|                                                     |      |     | Number                              | Rate | Number                             | Rate | Number                                              | Rate | Number                            | Rate | Number   | Rate | Number                                                       | Rate |
| BRUNEI                                              | 1992 | T   | 4                                   | 1.5  | 8                                  | 3.0  | —                                                   |      | 32                                | 11.9 | 6        | 2.2  | 5                                                            | 1.9  |
|                                                     |      | M   | ..                                  |      | ..                                 |      | ..                                                  |      | 16                                | 11.3 | 4        | 2.8  | 2                                                            | 1.4  |
|                                                     |      | F   | 4                                   | 3.2  | 8                                  | 6.3  | —                                                   |      | 16                                | 12.6 | 2        | 1.6  | 3                                                            | 2.4  |
| INDONESIA                                           | 1992 | T   | 5                                   |      | 2                                  |      | —                                                   |      | 15                                |      | 7        |      | 1                                                            |      |
|                                                     |      | M   | ..                                  |      | ..                                 |      | ..                                                  |      | 6                                 |      | 4        |      | —                                                            |      |
|                                                     |      | F   | 5                                   |      | 2                                  |      | —                                                   |      | 9                                 |      | 3        |      | 1                                                            |      |
| JAPAN                                               | 1992 | T   | 6,451                               | 5.2  | 1,960                              | 1.6  | 2,687                                               | 2.2  | 65,801                            | 53.3 | 5,716    | 4.6  | 7,855                                                        | 6.4  |
|                                                     |      | M   | ..                                  |      | ..                                 |      | ..                                                  |      | 38,193                            | 63.0 | 3,360    | 5.5  | 4,523                                                        | 7.5  |
|                                                     |      | F   | 6,451                               | 10.3 | 1,960                              | 3.1  | 2,687                                               | 4.3  | 27,608                            | 43.9 | 2,356    | 3.7  | 3,332                                                        | 5.3  |
| MALAYSIA<br>Peninsular Malaysia<br>Sabah<br>Sarawak | 1991 | T   | 226                                 | 1.6  | 119                                | 0.8  | 26                                                  | 0.2  | 1,130                             | 8.0  | 260      | 1.8  | 149                                                          | 1.1  |
|                                                     |      | T   |                                     |      |                                    |      |                                                     |      |                                   |      |          |      |                                                              |      |
|                                                     |      | T   |                                     |      |                                    |      |                                                     |      |                                   |      |          |      |                                                              |      |
| PHILIPPINES                                         | 1991 | T   | 1,593                               | 2.5  | 364                                | 0.6  | 931                                                 | 1.5  | 11,667                            | 18.3 | 1,465    | 2.3  | 397                                                          | 0.6  |
|                                                     |      | M   | ..                                  |      | ..                                 |      | ..                                                  |      | 7,118                             | 22.2 | 752      | 2.3  | 215                                                          | 0.7  |
|                                                     |      | F   | 1,593                               | 5.0  | 364                                | 1.1  | 931                                                 | 2.9  | 4,549                             | 14.3 | 713      | 2.2  | 182                                                          | 0.6  |
| SINGAPORE                                           | 1992 | T   | 193                                 | 6.4  | 87                                 | 2.8  | 27                                                  | 0.9  | 1,217                             | 41.5 | 99       | 3.1  | 107                                                          | 3.4  |
|                                                     |      | M   | ..                                  |      | ..                                 |      | ..                                                  |      | 767                               | 51.9 | 67       | 4.3  | 63                                                           | 4.0  |
|                                                     |      | F   | 193                                 | 13.1 | 87                                 | 5.7  | 27                                                  | 1.8  | 450                               | 30.9 | 32       | 1.9  | 44                                                           | 2.9  |
| THAILAND                                            | 1992 | T   | 326                                 | 0.6  | 171                                | 0.3  | 505                                                 | 0.9  | 15,381                            | 26.8 | 771      | 1.3  | 177                                                          | 0.3  |
|                                                     |      | M   | ..                                  |      | ..                                 |      | ..                                                  |      | 8,974                             | 31.2 | 417      | 1.5  | 115                                                          | 0.4  |
|                                                     |      | F   | 326                                 | 1.1  | 171                                | 0.6  | 505                                                 | 1.8  | 6,407                             | 22.4 | 354      | 1.2  | 62                                                           | 0.2  |



(rate per 100,000 population)

| 15 – 17                                                              | 181               |           | 180, 182, 183, 189                     |           | 19                       |           | 200       |           | 209                                              |           | 21               |           | 220        |           |
|----------------------------------------------------------------------|-------------------|-----------|----------------------------------------|-----------|--------------------------|-----------|-----------|-----------|--------------------------------------------------|-----------|------------------|-----------|------------|-----------|
| Benign Neoplasm, Carcinoma in Situ, Other and Unspecified Neoplasmas | Diabetes Mellitus |           | Other Endocrine and Metabolic Diseases |           | Nutritional Deficiencies |           | Anemias   |           | Other Diseases of Blood and Blood-forming Organs |           | Mental Disorders |           | Meningitis |           |
| Number Rate                                                          | Number            | Rate      | Number                                 | Rate      | Number                   | Rate      | Number    | Rate      | Number                                           | Rate      | Number           | Rate      | Number     | Rate      |
| 5 1.9                                                                | 14 5.2            | 2 0.7     | 3 1.1                                  | 3 1.1     | 3 1.1                    | 2 0.7     | 1 0.4     | 1 0.4     | 1 0.4                                            | 1 0.4     | 1 0.4            | 1 0.4     | 1 0.4      | 1 0.4     |
| 3 2.1                                                                | 6 4.2             | —         | 3 2.1                                  | 1 0.7     | 2 1.4                    | —         | —         | —         | —                                                | —         | —                | —         | —          | —         |
| 2 1.6                                                                | 8 6.3             | 2 1.6     | —                                      | 2 1.6     | —                        | —         | —         | —         | —                                                | —         | —                | —         | —          | —         |
| 12                                                                   | 22                | 3         | —                                      | 4         | —                        | —         | —         | —         | —                                                | —         | —                | —         | —          | —         |
| 9                                                                    | 11                | 1         | —                                      | 3         | —                        | —         | —         | —         | —                                                | —         | —                | —         | —          | —         |
| 3                                                                    | 11                | 2         | —                                      | 1         | —                        | —         | —         | —         | —                                                | —         | —                | —         | —          | —         |
| 7,108 5.8                                                            | 9,823 8.0         | 2,367 1.9 | 593 6.5                                | 1,523 1.2 | 2,639 2.1                | 3,003 2.4 | 436 0.4   | 436 0.4   | 436 0.4                                          | 436 0.4   | 436 0.4          | 436 0.4   | 436 0.4    | 436 0.4   |
| 4,028 6.6                                                            | 4,758 7.9         | 339 0.6   | 631 1.0                                | 631 1.0   | 1,446 2.4                | 1,269 2.1 | 259 0.4   | 259 0.4   | 259 0.4                                          | 259 0.4   | 259 0.4          | 259 0.4   | 259 0.4    | 259 0.4   |
| 3,080 4.9                                                            | 5,065 8.1         | 254 0.4   | 892 1.4                                | 892 1.4   | 1,193 1.9                | 1,734 2.8 | 177 0.3   | 177 0.3   | 177 0.3                                          | 177 0.3   | 177 0.3          | 177 0.3   | 177 0.3    | 177 0.3   |
| 164 1.2                                                              | 699 4.9           | 111 0.8   | 27 0.2                                 | 83 0.6    | 79 0.6                   | 51 0.4    | 126 0.9   | 126 0.9   | 126 0.9                                          | 126 0.9   | 126 0.9          | 126 0.9   | 126 0.9    | 126 0.9   |
| 111 0.2                                                              | 3,676 5.8         | 2,836 4.4 | 3,513 5.5                              | 2,223 3.5 | 363 0.6                  | 287 0.4   | 2,128 3.3 | 2,128 3.3 | 2,128 3.3                                        | 2,128 3.3 | 2,128 3.3        | 2,128 3.3 | 2,128 3.3  | 2,128 3.3 |
| 69 0.2                                                               | 1,705 5.3         | 1,574 4.9 | 1,892 5.9                              | 1,147 3.6 | 183 0.6                  | 230 0.7   | 1,223 3.8 | 1,223 3.8 | 1,223 3.8                                        | 1,223 3.8 | 1,223 3.8        | 1,223 3.8 | 1,223 3.8  | 1,223 3.8 |
| 42 0.1                                                               | 1,971 6.2         | 1,262 4.0 | 1,621 5.1                              | 1,076 3.4 | 180 0.6                  | 57 0.2    | 905 2.9   | 905 2.9   | 905 2.9                                          | 905 2.9   | 905 2.9          | 905 2.9   | 905 2.9    | 905 2.9   |
| 41 1.4                                                               | 238 8.2           | 17 0.5    | 1 0.0                                  | 20 0.6    | 13 0.5                   | 2 0.1     | 13 0.4    | 13 0.4    | 13 0.4                                           | 13 0.4    | 13 0.4           | 13 0.4    | 13 0.4     | 13 0.4    |
| 22 1.5                                                               | 97 6.6            | 8 0.5     | 1 0.1                                  | 6 0.4     | 4 0.3                    | 1 0.1     | 7 0.4     | 7 0.4     | 7 0.4                                            | 7 0.4     | 7 0.4            | 7 0.4     | 7 0.4      | 7 0.4     |
| 19 1.3                                                               | 141 9.8           | 9 0.4     | —                                      | 14 0.9    | 9 0.6                    | 1 0.1     | 6 0.4     | 6 0.4     | 6 0.4                                            | 6 0.4     | 6 0.4            | 6 0.4     | 6 0.4      | 6 0.4     |
| 2 0.0                                                                | 3,568 6.2         | 406 0.7   | 152 0.3                                | 213 0.4   | 96 0.2                   | 696 1.3   | 357 0.6   | 357 0.6   | 357 0.6                                          | 357 0.6   | 357 0.6          | 357 0.6   | 357 0.6    | 357 0.6   |
| 2 0.0                                                                | 1,449 5.0         | 257 0.9   | 85 0.3                                 | 97 0.3    | 57 0.2                   | 608 2.1   | 236 0.8   | 236 0.8   | 236 0.8                                          | 236 0.8   | 236 0.8          | 236 0.8   | 236 0.8    | 236 0.8   |
| —                                                                    | 2,119 7.4         | 149 0.5   | 67 0.2                                 | 116 0.4   | 39 0.1                   | 88 0.3    | 121 0.4   | 121 0.4   | 121 0.4                                          | 121 0.4   | 121 0.4          | 121 0.4   | 121 0.4    | 121 0.4   |

3 - 3 Deaths and Death Rates by Causes (ICD-9) (Contd.)

|                                            | Year | Sex | 221 - 225<br>229, 23, 24                                |      | 25 - 30                           |       | 25                                                 |      | 26                      |      | 270                               |      | 279                                 |      |
|--------------------------------------------|------|-----|---------------------------------------------------------|------|-----------------------------------|-------|----------------------------------------------------|------|-------------------------|------|-----------------------------------|------|-------------------------------------|------|
|                                            |      |     | Other Diseases of<br>Nervous System<br>and Sense Organs |      | Diseases of<br>Circulatory System |       | Rheumatic Fever<br>and Rheumatic Heart<br>Diseases |      | Hypertensive<br>Disease |      | Acute<br>Myocardial<br>Infarction |      | Other<br>Ischemic Heart<br>Diseases |      |
|                                            |      |     | Number                                                  | Rate | Number                            | Rate  | Number                                             | Rate | Number                  | Rate | Number                            | Rate | Number                              | Rate |
| BRUNEI                                     | 1992 | T   | 2                                                       | 0.7  | 231                               | 86.3  | 1                                                  | 0.4  | 28                      | 10.5 | 72                                | 26.9 | 25                                  | 9.3  |
|                                            |      | M   | —                                                       | —    | 140                               | 99.1  | 1                                                  | 0.7  | 18                      | 12.7 | 45                                | 31.8 | 22                                  | 15.6 |
|                                            |      | F   | 2                                                       | 1.6  | 91                                | 71.9  | —                                                  | —    | 10                      | 7.9  | 27                                | 21.3 | 3                                   | 2.4  |
| INDONESIA                                  | 1992 | T   | 51                                                      | —    | —                                 | —     | 3                                                  | —    | 17                      | —    | 27                                | —    | 5                                   | —    |
|                                            |      | M   | 29                                                      | —    | —                                 | —     | 1                                                  | —    | 12                      | —    | 22                                | —    | 2                                   | —    |
|                                            |      | F   | 22                                                      | —    | —                                 | —     | 2                                                  | —    | 5                       | —    | 5                                 | —    | 3                                   | —    |
| JAPAN                                      | 1992 | T   | 6,364                                                   | 5.2  | 310,405                           | 251.4 | 1,326                                              | 1.1  | 8,688                   | 7.0  | 31,355                            | 25.4 | 19,769                              | 16.0 |
|                                            |      | M   | 3,480                                                   | 5.7  | 149,693                           | 247.0 | 401                                                | 0.7  | 3,174                   | 5.2  | 17,372                            | 28.7 | 9,615                               | 15.9 |
|                                            |      | F   | 2,884                                                   | 4.6  | 160,712                           | 255.6 | 925                                                | 1.5  | 5,514                   | 8.8  | 13,983                            | 22.2 | 10,154                              | 16.1 |
| MALAYSIA<br>Peninsular<br>Sabah<br>Sarawak | 1991 | T   | 316                                                     | 2.2  | 8,540                             | 60.4  | 137                                                | 1.0  | 116                     | 0.8  | 2,778                             | 19.7 | 623                                 | 4.4  |
|                                            |      | T   | —                                                       | —    | —                                 | —     | —                                                  | —    | —                       | —    | —                                 | —    | —                                   | —    |
|                                            |      | T   | —                                                       | —    | —                                 | —     | —                                                  | —    | —                       | —    | —                                 | —    | —                                   | —    |
| PHILIPPINES                                | 1991 | T   | 2,123                                                   | 3.3  | 79,362                            | 124.6 | 2,020                                              | 3.2  | 16,579                  | 26.0 | 14,354                            | 22.5 | 5,501                               | 8.6  |
|                                            |      | M   | 1,232                                                   | 3.8  | 45,561                            | 142.3 | 958                                                | 3.0  | 9,598                   | 30.0 | 9,409                             | 29.4 | 2,701                               | 8.4  |
|                                            |      | F   | 891                                                     | 2.9  | 33,801                            | 106.6 | 1,062                                              | 3.3  | 6,981                   | 22.0 | 4,945                             | 15.6 | 2,800                               | 8.8  |
| SINGAPORE                                  | 1992 | T   | 114                                                     | 3.8  | 5,270                             | 176.7 | 39                                                 | 1.2  | 286                     | 9.4  | 1,717                             | 57.6 | 993                                 | 34.2 |
|                                            |      | M   | 69                                                      | 4.5  | 2,856                             | 188.7 | 17                                                 | 1.1  | 136                     | 8.6  | 1,039                             | 68.8 | 562                                 | 38.0 |
|                                            |      | F   | 45                                                      | 3.2  | 2,414                             | 165.5 | 22                                                 | 1.3  | 150                     | 10.2 | 678                               | 46.3 | 431                                 | 30.4 |
| THAILAND                                   | 1992 | T   | 5,468                                                   | 9.5  | 45,425                            | 79.2  | 269                                                | 0.5  | 2,933                   | 5.1  | 360                               | 0.6  | 737                                 | 1.3  |
|                                            |      | M   | 3,400                                                   | 11.8 | 28,190                            | 98.1  | 140                                                | 0.5  | 1,728                   | 6.0  | 223                               | 0.8  | 453                                 | 1.6  |
|                                            |      | F   | 2,068                                                   | 7.2  | 17,235                            | 60.2  | 129                                                | 0.5  | 1,205                   | 4.2  | 137                               | 0.5  | 284                                 | 1.0  |

(rate per 100,000 population)

| 28                   |       | 29                      |      | 300             |      | 301 – 305, 309                      |      | 310 – 312                         |      | 320                                |      | 321       |      | 322       |      |
|----------------------|-------|-------------------------|------|-----------------|------|-------------------------------------|------|-----------------------------------|------|------------------------------------|------|-----------|------|-----------|------|
| Other Heart Diseases |       | Cerebrovascular Disease |      | Atherosclerosis |      | Other Disease of Circulatory System |      | Acute Upper Respiratory Infection |      | Acute Bronchitis and Bronchiolitis |      | Pneumonia |      | Influenza |      |
| Number               | Rate  | Number                  | Rate | Number          | Rate | Number                              | Rate | Number                            | Rate | Number                             | Rate | Number    | Rate | Number    | Rate |
| 48                   | 17.9  | 51                      | 19.0 | 1               | 0.4  | 5                                   | 1.9  | 1                                 | 0.4  | —                                  | —    | 33        | 12.3 | —         | —    |
| 25                   | 17.7  | 26                      | 18.4 | 1               | 0.7  | 2                                   | 1.4  | —                                 | —    | —                                  | —    | 13        | 9.2  | —         | —    |
| 23                   | 18.2  | 25                      | 19.8 | —               | —    | 3                                   | 2.4  | 1                                 | 0.8  | —                                  | —    | 20        | 15.8 | —         | —    |
| —                    | —     | 153                     | —    | —               | —    | 1                                   | —    | 4                                 | —    | 6                                  | —    | 82        | —    | —         | —    |
| —                    | —     | 94                      | —    | —               | —    | 1                                   | —    | —                                 | —    | 2                                  | —    | 45        | —    | —         | —    |
| —                    | —     | 59                      | —    | —               | —    | —                                   | —    | 4                                 | —    | 4                                  | —    | 37        | —    | —         | —    |
| 123,155              | 99.7  | 118,058                 | 95.6 | 1,821           | 1.5  | 6,233                               | 5.0  | 828                               | 0.7  | 1,418                              | 1.1  | 74,274    | 60.2 | 177       | 0.1  |
| 59,013               | 97.4  | 55,431                  | 91.5 | 815             | 1.3  | 3,872                               | 6.4  | 350                               | 0.6  | 705                                | 1.2  | 42,328    | 69.9 | 80        | 0.1  |
| 64,142               | 102.0 | 62,627                  | 99.6 | 1,006           | 1.6  | 2,361                               | 3.8  | 478                               | 0.8  | 713                                | 1.1  | 31,946    | 50.8 | 97        | 0.2  |
| 2,254                | 16.0  | 2,402                   | 17.0 | 6               | 0.1  | 173                                 | 1.2  | 2                                 | 0.0  | 6                                  | 0.0  | 707       | 5.0  | —         | —    |
| 21,319               | 33.5  | 16,779                  | 26.3 | 1,941           | 3.0  | 869                                 | 1.4  | 108                               | 0.2  | 562                                | 0.9  | 36,705    | 57.6 | 497       | 0.8  |
| 11,726               | 36.6  | 9,715                   | 30.3 | 928             | 2.9  | 526                                 | 1.6  | 57                                | 0.2  | 320                                | 1.0  | 19,938    | 62.3 | 268       | 0.8  |
| 9,593                | 30.3  | 7,064                   | 22.3 | 1,013           | 3.2  | 343                                 | 1.1  | 51                                | 0.2  | 242                                | 0.8  | 16,767    | 52.9 | 229       | 0.7  |
| 423                  | 13.5  | 1,697                   | 57.1 | 4               | 0.1  | 111                                 | 3.7  | —                                 | —    | 1                                  | 0.0  | 1,420     | 46.2 | 3         | 0.1  |
| 236                  | 14.3  | 797                     | 53.3 | —               | —    | 69                                  | 4.5  | —                                 | —    | 1                                  | 0.1  | 722       | 45.2 | 1         | 0.1  |
| 187                  | 12.5  | 900                     | 61.5 | 4               | 0.3  | 42                                  | 2.9  | —                                 | —    | —                                  | —    | 698       | 47.4 | 2         | 0.1  |
| 30,770               | 53.6  | 6,776                   | 11.8 | 3               | 0.0  | 3,577                               | 6.2  | 138                               | 0.2  | 2                                  | 0.0  | 4,130     | 7.2  | 137       | 0.2  |
| 18,932               | 65.9  | 4,316                   | 15.0 | 2               | 0.0  | 2,396                               | 8.3  | 90                                | 0.3  | 2                                  | 0.0  | 2,647     | 9.2  | 79        | 0.3  |
| 11,838               | 41.3  | 2,460                   | 8.6  | 1               | 0.0  | 1,181                               | 4.1  | 48                                | 0.2  | —                                  | —    | 1,483     | 5.2  | 58        | 0.2  |

## 3 – 3 Deaths and Death Rates by Causes (ICD-9) (Contd.)

|                                                     | Year | Sex | 323                                                             |      | 313 – 315, 319<br>324 – 327, 329        |      | 341                              |      | 347                                       |      | 33, 340, 342 – 346<br>348, 349        |      | 350                                               |      |
|-----------------------------------------------------|------|-----|-----------------------------------------------------------------|------|-----------------------------------------|------|----------------------------------|------|-------------------------------------------|------|---------------------------------------|------|---------------------------------------------------|------|
|                                                     |      |     | Bronchitis, Chronic<br>and Unspecified,<br>Emphysema and Asthma |      | Other Diseases of<br>Respiratory System |      | Ulcer of Stomach<br>and Duodenum |      | Chronic Liver<br>Disease and<br>Cirrhosis |      | Other Diseases of<br>Digestive System |      | Nephritis, Nephrotic<br>Syndrome and<br>Nephrosis |      |
|                                                     |      |     | Number                                                          | Rate | Number                                  | Rate | Number                           | Rate | Number                                    | Rate | Number                                | Rate | Number                                            | Rate |
| BRUNEI                                              | 1992 | T   | 14                                                              | 5.2  | 35                                      | 13.1 | 2                                | 0.7  | —                                         | —    | 18                                    | 6.7  | 12                                                | 4.5  |
|                                                     |      | M   | 11                                                              | 7.8  | 23                                      | 16.3 | 2                                | 1.4  | —                                         | —    | 13                                    | 9.2  | 7                                                 | 5.0  |
|                                                     |      | F   | 3                                                               | 2.4  | 12                                      | 9.5  | —                                | —    | —                                         | —    | 5                                     | 4.0  | 5                                                 | 4.0  |
| INDONESIA                                           | 1992 | T   | 21                                                              |      | 40                                      |      | 5                                |      | 48                                        |      | 50                                    |      | 39                                                |      |
|                                                     |      | M   | 9                                                               |      | 18                                      |      | 5                                |      | 40                                        |      | 35                                    |      | 22                                                |      |
|                                                     |      | F   | 12                                                              |      | 22                                      |      | —                                |      | 8                                         |      | 15                                    |      | 17                                                |      |
| JAPAN                                               | 1992 | T   | 15,174                                                          | 12.3 | 15,563                                  | 12.6 | 3,581                            | 2.9  | 17,083                                    | 13.8 | 18,587                                | 15.1 | 18,299                                            | 14.8 |
|                                                     |      | M   | 9,780                                                           | 16.1 | 9,821                                   | 16.2 | 1,917                            | 3.2  | 11,545                                    | 19.1 | 9,389                                 | 15.5 | 8,739                                             | 14.4 |
|                                                     |      | F   | 5,394                                                           | 8.6  | 5,742                                   | 9.1  | 1,664                            | 2.6  | 5,538                                     | 8.8  | 9,198                                 | 14.6 | 9,560                                             | 15.2 |
| MALAYSIA<br>Peninsular Malaysia<br>Sabah<br>Sarawak | 1991 | T   | 303                                                             | 2.1  | 1,269                                   | 9.0  | 90                               | 0.6  | 272                                       | 1.9  | 804                                   | 5.7  | 933                                               | 6.6  |
|                                                     |      | T   |                                                                 |      |                                         |      |                                  |      |                                           |      |                                       |      |                                                   |      |
|                                                     |      | T   |                                                                 |      |                                         |      |                                  |      |                                           |      |                                       |      |                                                   |      |
| PHILIPPINES                                         | 1991 | T   | 7,613                                                           | 12.0 | 6,725                                   | 10.6 | 5,283                            | 8.3  | 2,832                                     | 4.4  | 4,905                                 | 7.7  | 5,530                                             | 8.7  |
|                                                     |      | M   | 4,958                                                           | 15.5 | 3,529                                   | 11.0 | 3,621                            | 11.3 | 2,295                                     | 7.2  | 3,491                                 | 10.9 | 3,168                                             | 9.9  |
|                                                     |      | F   | 2,655                                                           | 8.4  | 3,196                                   | 10.1 | 1,662                            | 5.2  | 537                                       | 1.7  | 1,414                                 | 4.5  | 2,362                                             | 7.5  |
| SINGAPORE                                           | 1992 | T   | 220                                                             | 7.4  | 878                                     | 29.7 | 74                               | 2.3  | 106                                       | 3.4  | 173                                   | 5.7  | 204                                               | 7.0  |
|                                                     |      | M   | 129                                                             | 8.6  | 631                                     | 42.2 | 29                               | 1.9  | 78                                        | 5.0  | 91                                    | 6.0  | 85                                                | 5.8  |
|                                                     |      | F   | 91                                                              | 6.2  | 247                                     | 16.9 | 45                               | 2.8  | 28                                        | 1.9  | 81                                    | 5.4  | 119                                               | 8.3  |
| THAILAND                                            | 1992 | T   | 1,167                                                           | 2.0  | 2,824                                   | 4.9  | 557                              | 1.0  | 5,395                                     | 9.4  | 4,276                                 | 7.5  | 5,556                                             | 9.7  |
|                                                     |      | M   | 808                                                             | 2.8  | 1,980                                   | 6.9  | 375                              | 1.3  | 3,933                                     | 13.7 | 2,826                                 | 9.8  | 3,026                                             | 10.5 |
|                                                     |      | F   | 359                                                             | 1.3  | 844                                     | 2.9  | 182                              | 0.6  | 1,462                                     | 5.1  | 1,450                                 | 5.1  | 2,530                                             | 8.8  |

(rate per 100,000 population)

| 351 – 353, 359,<br>36, 37                     | 38       |      | 39                               |      | 40, 41                       |      | 42                                             |      | 43                                                               |      | 44                      |      | 45                                                           |      |
|-----------------------------------------------|----------|------|----------------------------------|------|------------------------------|------|------------------------------------------------|------|------------------------------------------------------------------|------|-------------------------|------|--------------------------------------------------------------|------|
| Other Diseases of<br>Genito-urinary<br>System | Abortion |      | Other Direct<br>Obstetric Causes |      | Indirect<br>Obstetric Causes |      | Diseases of Skin<br>and Subcutaneous<br>Tissue |      | Diseases of Musculo-<br>skeletal System and<br>Connective Tissue |      | Congenital<br>Anomalies |      | Certain Conditions<br>Originating in the<br>Perinatal Period |      |
| Number Rate                                   | Number   | Rate | Number                           | Rate | Number                       | Rate | Number                                         | Rate | Number                                                           | Rate | Number                  | Rate | Number                                                       | Rate |
| 3 1.1                                         | —        |      | —                                |      | —                            |      | —                                              |      | 5 1.9                                                            |      | 25 9.7                  |      | 22 8.2                                                       |      |
| 2 1.4                                         | ••       |      | ••                               |      | ••                           |      | —                                              |      | 1 0.7                                                            |      | 12 8.5                  |      | 13 9.2                                                       |      |
| 1 0.8                                         | —        |      | —                                |      | —                            |      | —                                              |      | 4 3.2                                                            |      | 13 10.3                 |      | 9 7.1                                                        |      |
| 4                                             | 3        |      | 40                               |      | 4                            |      | 4                                              |      | 2                                                                |      | 3                       |      |                                                              |      |
| 2                                             | ••       |      | ••                               |      | ••                           |      | 3                                              |      | 1                                                                |      | 2                       |      |                                                              |      |
| 2                                             | 3        |      | 40                               |      | 4                            |      | 1                                              |      | 1                                                                |      | 1                       |      |                                                              |      |
| 2,317 1.9                                     | 2 0.0    |      | 93 0.1                           |      | 16 0.0                       |      | 720 0.6                                        |      | 3,361 2.7                                                        |      | 3,534 2.9               |      | 1,564 1.3                                                    |      |
| 914 1.5                                       | ••       |      | ••                               |      | ••                           |      | 275 0.5                                        |      | 875 1.4                                                          |      | 1,885 3.1               |      | 874 1.4                                                      |      |
| 1,403 2.2                                     | 2 0.0    |      | 93 0.1                           |      | 16 0.0                       |      | 445 0.7                                        |      | 2,486 4.0                                                        |      | 1,649 2.6               |      | 690 1.1                                                      |      |
| 118 0.8                                       | 8 0.1    |      | 51 0.4                           |      | —                            |      | 91 0.6                                         |      | 91 0.6                                                           |      | 897 6.3                 |      | 1,791 12.7                                                   |      |
| 928 1.5                                       | 114 0.2  |      | 1,030 1.6                        |      | —                            |      | 290 0.5                                        |      | 416 0.7                                                          |      | 2,642 4.1               |      | 13,795 21.7                                                  |      |
| 546 1.7                                       | ••       |      | ••                               |      | ••                           |      | 155 0.5                                        |      | 256 0.8                                                          |      | 1,496 4.7               |      | 8,187 25.6                                                   |      |
| 382 1.2                                       | 114 0.4  |      | 1,030 3.2                        |      | —                            |      | 135 0.4                                        |      | 160 0.5                                                          |      | 1,146 3.6               |      | 5,608 17.7                                                   |      |
| 158 5.4                                       | 1 0.0    |      | 1 0.0                            |      | —                            |      | 33 1.1                                         |      | 71 2.3                                                           |      | 163 <sup>a)</sup> 5.4   |      | 82 2.9                                                       |      |
| 45 2.9                                        | ••       |      | ••                               |      | ••                           |      | 16 1.1                                         |      | 16 1.0                                                           |      | 96 6.0                  |      | 39 2.6                                                       |      |
| 113 7.9                                       | 1 0.1    |      | 1 0.1                            |      | —                            |      | 17 1.1                                         |      | 55 3.7                                                           |      | 66 4.3                  |      | 43 2.7                                                       |      |
| 373 0.7                                       | 28 0.0   |      | 108 0.2                          |      | 1 0.0                        |      | 122 0.2                                        |      | 177 0.3                                                          |      | 1,486 2.6               |      | 1,569 2.7                                                    |      |
| 223 0.8                                       | ••       |      | ••                               |      | ••                           |      | 50 0.2                                         |      | 98 0.3                                                           |      | 819 2.8                 |      | 929 3.2                                                      |      |
| 150 0.5                                       | 28 0.1   |      | 108 0.4                          |      | 1 0.0                        |      | 72 0.3                                         |      | 79 0.3                                                           |      | 667 2.3                 |      | 640 2.2                                                      |      |

Note : a) Includes unknown sex

3-3 Deaths and Death Rates by Causes (ICD-9) (Contd.)

|                                                        | Year | Sex | 465                                         |       | 460-464, 466, 467, 469                                  |      | E47-E56                          |       | E47                    |      | E48                     |      | E50                 |      |
|--------------------------------------------------------|------|-----|---------------------------------------------|-------|---------------------------------------------------------|------|----------------------------------|-------|------------------------|------|-------------------------|------|---------------------|------|
|                                                        |      |     | Senility without<br>Mention of<br>Psychosis |       | Signs, Symptoms<br>and Other Ill-<br>defined Conditions |      | Accidents and<br>Adverse Effects |       | Transport<br>Accidents |      | Accidental<br>Poisoning |      | Accidental<br>Falls |      |
|                                                        |      |     | Number                                      | Rate  | Number                                                  | Rate | Number                           | Rate  | Number                 | Rate | Number                  | Rate | Number              | Rate |
| BRUNEI                                                 | 1992 | T   | 113                                         | 44.2  | 126                                                     | 47.1 | 82                               | 30.6  | 37                     | 13.8 | 3                       | 1.1  | —                   | —    |
|                                                        |      | M   | 55                                          | 38.9  | 78                                                      | 55.2 | 71                               | 50.2  | 31                     | 21.9 | 2                       | 1.4  | —                   | —    |
|                                                        |      | F   | 58                                          | 45.8  | 48                                                      | 37.9 | 11                               | 8.7   | 6                      | 4.7  | 1                       | 0.8  | —                   | —    |
| INDONESIA                                              | 1992 | T   |                                             |       | 71                                                      |      | 91                               |       | 43                     |      | 2                       |      | 14                  |      |
|                                                        |      | M   |                                             |       | 43                                                      |      | 71                               |       | 34                     |      | 1                       |      | 11                  |      |
|                                                        |      | F   |                                             |       | 28                                                      |      | 20                               |       | 9                      |      | 1                       |      | 3                   |      |
| JAPAN                                                  | 1992 | T   | 23,361                                      | 18.9  | 8,165                                                   | 6.6  | 58,952                           | 47.7  | 15,828                 | 12.8 | 526                     | 0.4  | 4,598               | 3.7  |
|                                                        |      | M   | 7,613                                       | 12.6  | 4,567                                                   | 7.5  | 39,288                           | 64.8  | 11,435                 | 18.9 | 341                     | 0.6  | 2,941               | 4.9  |
|                                                        |      | F   | 15,748                                      | 25.1  | 3,598                                                   | 5.7  | 19,664                           | 31.3  | 4,393                  | 7.0  | 185                     | 0.3  | 1,657               | 2.6  |
| MALAYSIA<br>Peninsular<br>Malaysia<br>Sabah<br>Sarawak | 1991 | T   | 1,211                                       | 8.6   | 734                                                     | 5.2  | 4,309                            | 30.5  | 1,558                  | 11.0 | 6                       | 0.0  | 547                 | 3.9  |
|                                                        |      | T   |                                             |       |                                                         |      |                                  |       |                        |      |                         |      |                     |      |
|                                                        |      | T   |                                             |       |                                                         |      |                                  |       |                        |      |                         |      |                     |      |
| PHILIPPINES                                            | 1991 | T   | 10,324                                      | 16.2  | 10,956                                                  | 17.2 | 26,605                           | 41.8  | 2,888                  | 4.5  | 215                     | 0.3  | 497                 | 0.8  |
|                                                        |      | M   | 4,385                                       | 13.7  | 7,100                                                   | 22.2 | 21,708                           | 67.8  | 2,078                  | 6.5  | 168                     | 0.5  | 361                 | 1.1  |
|                                                        |      | F   | 5,939                                       | 18.7  | 3,856                                                   | 12.2 | 4,897                            | 15.4  | 810                    | 2.6  | 47                      | 0.1  | 136                 | 0.4  |
| SINGAPORE                                              | 1992 | T   | 5                                           | 0.2   | 77                                                      | 2.4  | 1,127 <sup>a)</sup>              | 30.9  | 252                    | 7.2  | 12                      | 0.3  | 90                  | 2.6  |
|                                                        |      | M   | 1                                           | 0.1   | 47                                                      | 2.7  | 826                              | 43.3  | 200                    | 11.4 | 8                       | 0.4  | 61                  | 3.3  |
|                                                        |      | F   | 4                                           | 0.3   | 30                                                      | 1.8  | 300                              | 18.4  | 52                     | 2.9  | 4                       | 0.2  | 29                  | 1.8  |
| THAILAND                                               | 1992 | T   | 76,795                                      | 133.8 | 40,324                                                  | 70.3 | 36,543                           | 63.7  | 11,532                 | 20.1 | 290                     | 0.5  | 320                 | 0.6  |
|                                                        |      | M   | 35,081                                      | 122.1 | 24,190                                                  | 84.2 | 28,791                           | 100.2 | 9,418                  | 32.8 | 170                     | 0.6  | 257                 | 0.9  |
|                                                        |      | F   | 41,714                                      | 145.7 | 16,134                                                  | 56.3 | 7,752                            | 27.1  | 2,114                  | 7.4  | 120                     | 0.4  | 63                  | 0.2  |

Note: a) Includes unknown sex

(rate per 100,000 population)

| E51                                    |      | E521                                     |      | E49, E520, E522,<br>E529                         |      | E53                                                                 |      | E54                                     |      | E55                                                |      | E56            |      |
|----------------------------------------|------|------------------------------------------|------|--------------------------------------------------|------|---------------------------------------------------------------------|------|-----------------------------------------|------|----------------------------------------------------|------|----------------|------|
| Accidents Caused<br>by Fire and Flames |      | Accidental<br>Drowning and<br>Submersion |      | All Other Accidents<br>Including Late<br>Effects |      | Drugs, Medicaments<br>Causing Adverse Effects<br>in Therapeutic Use |      | Suicide and<br>Self-inflicted<br>Injury |      | Homicide & Injury<br>Inflicted by<br>Other Persons |      | Other Violence |      |
| Number                                 | Rate | Number                                   | Rate | Number                                           | Rate | Number                                                              | Rate | Number                                  | Rate | Number                                             | Rate | Number         | Rate |
| —                                      |      | 15                                       | 5.6  | —                                                |      | —                                                                   |      | 1                                       | 0.4  | —                                                  |      | 23             | 8.6  |
| —                                      |      | 15                                       | 10.6 | —                                                |      | —                                                                   |      | 1                                       | 0.7  | —                                                  |      | 19             | 13.4 |
| —                                      |      | —                                        |      | —                                                |      | —                                                                   |      | —                                       |      | —                                                  |      | 4              | 3.2  |
| 3                                      |      | —                                        |      | 22                                               |      | —                                                                   |      | —                                       |      | 4                                                  |      | —              |      |
| 2                                      |      | —                                        |      | 18                                               |      | —                                                                   |      | —                                       |      | 3                                                  |      | —              |      |
| 1                                      |      | —                                        |      | 4                                                |      | —                                                                   |      | —                                       |      | 1                                                  |      | —              |      |
| 1,287                                  | 1.0  | 3,269                                    | 2.6  | 9,040                                            | 7.3  | 129                                                                 | 0.1  | 20,893                                  | 16.9 | 748                                                | 0.6  | 2,634          | 1.9  |
| 778                                    | 1.3  | 2,007                                    | 3.3  | 6,038                                            | 10.0 | 66                                                                  | 0.1  | 13,516                                  | 22.3 | 442                                                | 0.7  | 1,724          | 2.8  |
| 5.9                                    | 0.8  | 1,262                                    | 2.0  | 3,002                                            | 4.8  | 63                                                                  | 0.1  | 7,377                                   | 11.7 | 306                                                | 0.5  | 910            | 1.4  |
| 70                                     | 0.5  | 5                                        | 0.0  | 141                                              | 1.0  | 3                                                                   | 0.0  | 23                                      | 0.2  | 32                                                 | 0.2  | 1,871          | 13.2 |
| 411                                    | 0.6  | 2,391                                    | 3.8  | 3,917                                            | 6.2  | 642                                                                 | 1.0  | 415                                     | 0.7  | 93                                                 | 0.1  | 15,136         | 23.8 |
| 239                                    | 0.7  | 1,629                                    | 5.1  | 2,823                                            | 8.8  | 561                                                                 | 1.8  | 277                                     | 0.9  | 89                                                 | 0.3  | 13,483         | 42.1 |
| 172                                    | 0.5  | 762                                      | 2.4  | 1,094                                            | 3.5  | 81                                                                  | 0.3  | 138                                     | 0.4  | 4                                                  | 0.0  | 1,653          | 5.2  |
| 7                                      | 0.2  | 18                                       | 0.4  | 92                                               | 2.0  | —                                                                   |      | 298                                     | 9.8  | 42                                                 | 1.2  | 316            | 7.2  |
| 4                                      | 0.1  | 12                                       | 0.6  | 83                                               | 3.4  | —                                                                   |      | 168                                     | 11.2 | 33                                                 | 1.8  | 257            | 11.0 |
| 3                                      | 0.2  | 6                                        | 0.3  | 9                                                | 0.6  | —                                                                   |      | 130                                     | 8.4  | 9                                                  | 0.5  | 58             | 3.4  |
| 211                                    | 0.4  | 3,292                                    | 5.7  | 12,163                                           | 21.2 | 3                                                                   | 0.0  | 3,602                                   | 6.3  | 4,953                                              | 8.6  | 177            | 0.3  |
| 141                                    | 0.5  | 2,280                                    | 7.9  | 9,751                                            | 33.9 | 3                                                                   | 0.0  | 2,397                                   | 8.3  | 4,249                                              | 14.8 | 125            | 0.4  |
| 70                                     | 0.2  | 1,012                                    | 3.5  | 2,412                                            | 8.4  | —                                                                   |      | 1,205                                   | 4.2  | 704                                                | 2.4  | 52             | 0.2  |

## **4. Child and Maternal Health**



4 - 1 Late Fetal, Infant, Neonatal, Post-neonatal and Perinatal Mortality (per 1,000 live-births)

|                                                                    | Year | Late Fetal Mortality |      | Infant Mortality |                    | Neonatal Mortality |      | Post-neonatal Mortality |      | Perinatal Mortality |      |
|--------------------------------------------------------------------|------|----------------------|------|------------------|--------------------|--------------------|------|-------------------------|------|---------------------|------|
|                                                                    |      | Number               | Rate | Number           | Rate               | Number             | Rate | Number                  | Rate | Number              | Rate |
| BRUNEI <sup>(1)</sup>                                              | 1992 | 40                   | 5.5  | <sup>a)</sup> 70 | 9.6                | <sup>a)</sup> 49   | 6.7  | 21                      | 2.9  | <sup>a)</sup> 72    | 9.8  |
| INDONESIA <sup>(2)</sup>                                           | 1992 |                      |      |                  | <sup>b)</sup> 60.0 |                    |      |                         |      |                     |      |
| JAPAN <sup>(3)</sup>                                               | 1992 | 4,191                | 3.5  | 5,477            | 4.5                | 2,905              | 2.4  | 2,572                   | 2.1  | 6,321               | 5.2  |
| MALAYSIA <sup>(4)</sup><br>Peninsular Malaysia<br>Sabah<br>Sarawak | 1992 | 3,151                | 6.0  | 6,402            | 12.2               | 4,147              | 7.9  | 2,255                   | 4.3  | 6,351               | 12.0 |
|                                                                    |      | 2,827                | 6.8  | 4,790            | 11.6               | 2,972              | 7.2  | 1,818                   | 4.4  | 5,067               | 12.2 |
|                                                                    |      | 197                  | 3.2  | 1,162            | 18.7               | 883                | 14.2 | 279                     | 4.5  | 934                 | 15.0 |
|                                                                    |      | 127                  | 2.6  | 450              | 9.4                | 292                | 6.1  | 158                     | 3.3  | 350                 | 7.3  |
| PHILIPPINES <sup>(5)</sup>                                         | 1991 | 4,445                | 2.7  | 34,332           | 20.9               | 17,068             | 10.4 | 17,264                  | 10.5 | 17,677              | 10.8 |
| SINGAPORE <sup>(6)</sup>                                           | 1992 | 171                  | 3.4  | 245              | 5.0                | 146                | 3.0  | 99                      | 2.0  | 281                 | 5.7  |
| THAILAND <sup>(7) c)</sup>                                         | 1992 | 701                  | 0.7  | 7,256            | 7.5                | 3,259              | 3.4  | 3,997                   | 4.1  | 2,817               | 2.9  |

Source : (1) Birth & Death Registry and Economic Planning Unit  
(2) Central Bureau of Statistics  
(3) *Vital Statistics Japan*, Ministry of Health & Welfare  
(4) *Vital Statistics Peninsular Malaysia*, Sabah and Sarawak, Department of Statistics  
(5) *Philippine Health Statistics*, Health Intelligence Service, Department of Health  
(6) *Report on Registration of Births and Deaths*, National Registration Department  
(7) Health Statistics Division, Ministry of Public Health

Note : a) Including one, intersex  
b) Calculated by Central Bureau of Statistics based on National Census 1990  
c) While the vital registration system of the whole country was revised for improvement in 1984, the registration of stillbirth has no longer been emphasized since then. The stillbirth data are therefore incomplete and not valid enough to be presented in the vital statistics.

# 4-2 Infant Mortality by Age and Sex

|                            | Year | Sex | Number |          |       |       |        |         | Rate (per 1,000 live-births) |       |     |      |        |         |
|----------------------------|------|-----|--------|----------|-------|-------|--------|---------|------------------------------|-------|-----|------|--------|---------|
|                            |      |     | Total  | 1 day    | 2-6   | 7-27  | 28-365 | Unknown | Total                        | 1 day | 2-6 | 7-27 | 28-365 | Unknown |
| BRUNEI <sup>(1)</sup>      | 1992 | T   | 70     | 16       | 16    | 17    | 21     | —       | 9.6                          | 2.2   | 2.2 | 2.3  | 2.9    | —       |
| INDONESIA <sup>(2)</sup>   | 1992 | T   |        |          |       |       |        |         | a)<br>60.0                   |       |     |      |        |         |
| JAPAN <sup>(3)</sup>       | 1992 | T   | 5,477  | 1,159    | 971   | 775   | 2,572  | —       | 4.5                          | 1.0   | 0.8 | 0.6  | 2.1    | —       |
|                            |      | M   | 3,103  | 620      | 579   | 432   | 1,472  | —       | 5.0                          | 1.0   | 0.9 | 0.7  | 2.4    | —       |
|                            |      | F   | 2,374  | 539      | 392   | 343   | 1,100  | —       | 4.1                          | 0.9   | 0.7 | 0.6  | 1.9    | —       |
| MALAYSIA <sup>(4)</sup>    | 1992 | T   | 6,402  | 3,200    |       | 947   | 2,255  | —       | 12.2                         | 6.1   |     | 1.8  | 4.3    | —       |
|                            |      | T   | 4,790  | 2,240    |       | 732   | 1,818  | —       | 11.6                         | 5.4   |     | 1.8  | 4.4    | —       |
|                            |      | M   | 2,769  | 1,322    |       | 413   | 1,034  | —       | 13.0                         | 6.2   |     | 1.9  | 4.8    | —       |
|                            |      | F   | 2,021  | 918      |       | 319   | 784    | —       | 10.1                         | 4.6   |     | 1.6  | 3.9    | —       |
|                            |      | T   | 1,162  | 737      |       | 146   | 279    | —       | 18.7                         | 11.9  |     | 2.3  | 4.5    | —       |
|                            |      | M   | 645    | 427      |       | 73    | 145    | —       | 20.0                         | 13.2  |     | 2.3  | 4.5    | —       |
|                            |      | F   | 517    | 310      |       | 73    | 134    | —       | 17.3                         | 10.4  |     | 2.4  | 4.5    | —       |
|                            |      | T   | 450    | 223      |       | 69    | 158    | —       | 9.4                          | 4.6   |     | 1.4  | 3.3    | —       |
|                            |      | M   | 259    | 118      |       | 49    | 92     | —       | 10.3                         | 4.7   |     | 1.9  | 3.7    | —       |
|                            |      | F   | 191    | 105      |       | 20    | 66     | —       | 8.3                          | 4.6   |     | 0.8  | 2.9    | —       |
| PHILIPPINES <sup>(5)</sup> | 1991 | T   | 34,332 | 13,232   |       | 3,836 | 17,264 | —       | 20.9                         | 8.1   |     | 2.3  | 10.5   | —       |
| SINGAPORE <sup>(6)</sup>   | 1992 | T   | 245    | 71       | 39    | 36    | 99     | —       | 5.0                          | 1.4   | 0.8 | 0.7  | 2.0    | —       |
|                            |      | M   | 137    | 38       | 20    | 21    | 58     | —       | 5.4                          | 1.5   | 0.8 | 0.8  | 2.3    | —       |
|                            |      | F   | 107    | 32       | 19    | 15    | 41     | —       | 4.5                          | 1.3   | 0.8 | 0.6  | 1.7    | —       |
| THAILAND <sup>(7)</sup>    | 1992 | T   | 7,256  | b) 1,040 | 1,076 | 1,143 | 3,844  | 153     | 7.5                          | 1.1   | 1.1 | 1.2  | 4.0    | 0.2     |
|                            |      | M   | 4,182  | 590      | 654   | 664   | 2,192  | 82      | 8.5                          | 1.2   | 1.3 | 1.3  | 4.4    | 0.2     |
|                            |      | F   | 3,074  | 450      | 422   | 479   | 1,652  | 71      | 6.5                          | 1.0   | 0.9 | 1.0  | 3.5    | 0.2     |

Source : (1) Birth & Death Registry and Economic Planning Unit  
 (2) Central Bureau of Statistics  
 (3) *Vital Statistics Japan*, Ministry of Health & Welfare  
 (4) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak*, Department of Statistics  
 (5) Health Intelligence Service, Department of Health

(6) *Report on Registration of Births and Deaths*, National Registration Department  
 (7) Health Statistics Division, Ministry of Public Health

Note : a) Calculated by Central Bureau of Statistics based on National Census 1990  
 b) Including under 1 day

## 4 - 3 Maternal Mortality Rates

(per 100,000 live-births)

|                            | 1970  | 1975  | 1980 | 1985 | 1986 | 1987  | 1988 | 1989  | 1990 | 1991 | 1992 |
|----------------------------|-------|-------|------|------|------|-------|------|-------|------|------|------|
| BRUNEI <sup>(1)</sup>      |       |       | 70   |      |      | 10    |      |       |      |      | 0    |
| INDONESIA                  |       |       |      |      |      |       |      |       |      | 425  | 420  |
| JAPAN <sup>(2)</sup>       | 50.0  | 28.7  | 20.5 | 15.8 | 13.5 | 12.0  | 9.6  | 10.8  | 8.6  | 9.0  | 9.2  |
| MALAYSIA <sup>(3)</sup>    |       |       |      |      |      |       |      |       |      |      |      |
| Peninsular Malaysia        | 148   | 83    | 63   | 37   | 30   | 28    | 26   | 20    | 20   | 20   | 20   |
| Sabah                      | 11    | 72    | 107  | 19   | 10   | 14    | 19   | 25    | 19   | 33   | 10   |
| Sarawak                    | 90    | 20    | 50   | 10   | 12   | 1     | 15   | 12    | 7    | 1    | 20   |
| PHILIPPINES <sup>(4)</sup> | 190   | 140   | 110  | 90   | 90   | 105.3 | 110  | 100.9 | 80.1 | 69.6 |      |
| SINGAPORE <sup>(5)</sup>   | 32.7  | 30.0  | 4.9  | 4.7  | 13.0 | 6.9   | 11.3 | 4.2   | 2.0  | 4.1  | 4.0  |
| THAILAND <sup>(6)</sup>    | 226.1 | 171.7 | 98.5 | 42   | 34.7 | 37.2  | 27.2 | 22.8  | 24.8 | 19.4 | 14.2 |

- Source : (1) Birth & Death Registry and Economic Planning Unit  
 (2) *Vital Statistics Japan*, Ministry of Health & Welfare  
 (3) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak*, (Respective years),  
 Department of Statistics  
 (4) *Philippine Health Statistics*, Intelligence Health Service, Department of Health  
 (5) *Report on the Registration of Births and Deaths*, National Registration  
 Department  
 (6) Health Statistics Division, Ministry of Public Health

## 4 – 4 Family Planning Methods Used

(%)

|                            | Year | Reversible         |      |           |        | Irreversible                                 |  | Natural <sup>a)</sup> | Others <sup>b)</sup> |
|----------------------------|------|--------------------|------|-----------|--------|----------------------------------------------|--|-----------------------|----------------------|
|                            |      | Oral Contraceptive | IUD  | Injection | Condom | Sterilization<br>(Tubal ligation, Vasectomy) |  |                       |                      |
| BRUNEI                     |      |                    |      |           |        |                                              |  |                       |                      |
| INDONESIA <sup>(1)</sup>   | 1992 | 34.1               | 24.0 | 26.9      | 8.6    | 6.5                                          |  |                       |                      |
| JAPAN <sup>(2) c)</sup>    | 1990 | 5.7                |      | —         | 73.9   | 9.8                                          |  | 15.3                  | 9.0                  |
| MALAYSIA                   | 1992 | 85.4               | 2.3  | 0.6       | 11.5   | 0.3                                          |  | 0.0                   |                      |
| PHILIPPINES <sup>(3)</sup> | 1992 | 56.3               | 13.5 | —         | 12.3   | <sup>d)</sup> 10.1 <sup>e)</sup> 0.1         |  | 1.9                   | 5.8                  |
| SINGAPORE                  | 1992 | 10.7               | 10.1 | 1.0       | 33.4   | 23.6                                         |  | 14.5                  | 6.7                  |
| THAILAND <sup>(4)</sup>    | 1992 | 40.2               | 5.8  | 33.4      | 8.8    | <sup>d)</sup> 7.7 <sup>e)</sup> 0.4          |  | —                     | 3.6                  |

Source : (1) Central Bureau of Statistics  
 (2) Institute of Population Problems  
 (3) Family Planning, Department of Health only  
 (4) Department of Health, Ministry of Public Health

Note : a) Basic body temperature, cervical mucous, rhythm method  
 b) Diaphragm, etc.  
 c) Plural choice  
 d) Tubal ligation  
 e) Vasectomy

## **5. Morbidity from Infectious Diseases**

# 5 – A List of Notifiable Infectious Diseases

| ICD-9 Categories                                 | Brunei<br>1992 | Indonesia<br>1992 | Japan<br>1992   | Malaysia<br>1991 | Philippines<br>1991 | Singapore<br>1992 | Thailand<br>1992 |
|--------------------------------------------------|----------------|-------------------|-----------------|------------------|---------------------|-------------------|------------------|
| 001 Cholera                                      | V              | V                 | V               | V                | V                   | V                 | V                |
| 002 Typhoid and Paratyphoid Fevers               | V              | V                 | V               | V                | V                   | V                 |                  |
| 003 Other Salmonella Infections                  | V              |                   |                 | V                | V                   |                   |                  |
| 004 Shigella                                     |                |                   | V               | V                |                     |                   |                  |
| 008 Intestinal Infections due to Other Organisms |                |                   | V <sup>a)</sup> |                  |                     |                   |                  |
| 010 – 018 Tuberculosis                           | V              | V                 | V               | V                | V                   | V                 |                  |
| 020 Plague                                       | V              | V                 | V               | V                |                     | V                 | V                |
| 022 Anthrax                                      |                |                   | V               |                  |                     |                   | V                |
| 030 Leprosy                                      | V              | V                 | V               | V                | V                   | V                 |                  |
| 032 Diphtheria                                   | V              | V                 | V               | V                | V                   | V                 | V                |
| 033 Whooping Cough                               | V              | V                 | V               | V                | V                   |                   |                  |
| 034 Streptococcal Sore Throat and Scarlet Fever  |                |                   | V <sup>b)</sup> |                  |                     |                   |                  |
| 036 Meningococcal Infection                      | V              |                   | V               |                  |                     |                   | V                |
| 037 Tetanus                                      | V              | V                 | V               | V                | V                   |                   | V <sup>c)</sup>  |
| 045 Acute Poliomyelitis                          | V              | V                 | V               | V                | V                   | V                 | V                |
| 050 Smallpox                                     |                |                   |                 |                  |                     |                   | V                |
| 052 Chickenpox                                   | V              |                   |                 |                  | V                   | V                 |                  |
| 055 Measles                                      | V              | V                 | V               | V                | V                   | V                 |                  |
| 060 Yellow Fever                                 | V              |                   | V               | V                |                     | V                 | V                |
| 061 Dengue                                       |                | V <sup>d)</sup>   |                 | V                | V                   | V                 |                  |
| 062 Mosquito-borne Viral Encephalitis            | V              |                   | V               | V                |                     | V                 | V                |
| 070 Viral Hepatitis                              | V              | V                 |                 | V                | V                   | V                 |                  |
| 071 Rabies                                       |                | V                 | V               | V                |                     |                   | V                |

Note :  
a) Infectious diarrhoea only  
b) Scarlet fever only  
c) Tetanus Neonatorum  
d) Hemorrhagic fever only

# 5 – A List of Notifiable Infectious Diseases (Contd.)

| ICD-9 Categories                        | Brunei<br>1992 | Indonesia<br>1992 | Japan<br>1992   | Malaysia<br>1991 | Philippines<br>1991 | Singapore<br>1992 | Thailand<br>1992 |
|-----------------------------------------|----------------|-------------------|-----------------|------------------|---------------------|-------------------|------------------|
| 072 Mumps                               | V              |                   |                 |                  |                     | V                 |                  |
| 081 Other Typhus                        | V              |                   |                 | V                |                     |                   | V                |
| 084 Malaria                             | V              | V                 | V               | V                | V                   | V                 |                  |
| 087 Relapsing Fever                     |                |                   | V               |                  |                     |                   | V                |
| 090 Congenital Syphilis                 | V              | V                 | V               | V                | V                   | V                 |                  |
| 098 Gonococcal Infections               | V              | V                 | V               | V                | V                   | V                 |                  |
| 099 Other Venereal Diseases             | V              |                   | V <sup>a)</sup> | V <sup>b)</sup>  |                     | V <sup>c)</sup>   |                  |
| 100 Leptospirosis                       | V              |                   |                 |                  |                     |                   |                  |
| 102 Yaws                                |                |                   |                 |                  |                     |                   | V                |
| 120 Schistosomiasis [Bilharziasis]      |                | V                 |                 |                  | V                   |                   |                  |
| 124 Trichinosis                         |                |                   |                 |                  |                     |                   | V                |
| 125 Filarial Infection and Dracontiasis | V              |                   | V <sup>d)</sup> | V                |                     |                   |                  |
| 279.5 AIDS                              | V              | V                 | V               |                  | V                   |                   | V                |
| 487 Influenza                           |                | V                 | V               |                  | V                   |                   |                  |

Note :  
a) Chancroid + lymphogranuloma inguinale  
b) Chancroid  
c) All STDs  
d) Filariasis only

## 5 – B Infectious Diseases Specified by Immunization Programme

|                                   | Brunei<br>1992 | Indonesia<br>1992 | Japan<br>1992   | Malaysia<br>1992 | Philippines<br>1991 | Singapore<br>1992 | Thailand<br>1992 |
|-----------------------------------|----------------|-------------------|-----------------|------------------|---------------------|-------------------|------------------|
| Cholera                           | V              | V                 |                 |                  | V                   |                   | V                |
| Diphtheria                        | V              | V                 | V               | V                | V                   | V                 | V                |
| Measles                           | V              | V                 | V               | V                | V                   | V                 | V <sup>a)</sup>  |
| Mosquito-borne Viral Encephalitis |                |                   | V               |                  |                     |                   | V <sup>a)</sup>  |
| Mumps                             |                |                   |                 |                  |                     | V                 |                  |
| Poliomyelitis                     | V              | V                 | V               | V                | V                   | V                 | V                |
| Rubella                           | V              |                   | V <sup>b)</sup> | V <sup>b)</sup>  |                     | V                 | V <sup>b)</sup>  |
| Tetanus                           | V              | V                 |                 | V                | V                   | V                 | V                |
| Tuberculosis (BCG)                | V              | V                 | V               | V                | V                   | V                 | V                |
| Typhoid and Paratyphoid Fever     | V              | V                 |                 |                  | V                   |                   | V                |
| Whooping Cough                    | V              | V                 | V               | V                | V                   | V                 | V                |
| Yellow Fever                      | V              |                   |                 | V <sup>c)</sup>  |                     |                   |                  |

Note : a) In restricted areas  
b) Women only  
c) Required under Institute for Medical Research



### 5 – 1 Morbidity Statistics (ICD-9)

|                              | ICD<br>Categories | 001     | 002                                    | 004, 006                                   | 003, 005                         | 010 – 018                    | 030     |
|------------------------------|-------------------|---------|----------------------------------------|--------------------------------------------|----------------------------------|------------------------------|---------|
|                              | Year              | Cholera | Typhoid<br>and<br>Paratyphoid<br>Fever | Amebiasis<br>and<br>Bacillary<br>Dysentery | Food<br>Poisoning<br>(Bacterial) | Tuberculosis<br>of All Forms | Leprosy |
| BRUNEI <sup>(1)</sup>        | 1992              | —       | 9                                      | 7                                          | 30                               | 183                          | 3       |
| INDONESIA <sup>(2)</sup>     | 1992              | 4,628   | 300,364                                | 669,078                                    | 3,911                            | 675,490                      | 25,385  |
| JAPAN <sup>(3) (4) (5)</sup> | 1992              | 48      | 100                                    | 1,124                                      | 24,924                           | 48,956                       | 15      |
| MALAYSIA <sup>(6)</sup>      |                   |         |                                        |                                            |                                  |                              |         |
| Peninsular Malaysia          | 1992              | 699     | 1,764                                  | 372                                        | 963                              | 11,420                       | 293     |
| Sabah                        |                   | 67      | 1,311                                  | 152                                        | 823                              | 6,336                        | 184     |
| Sarawak                      |                   | 632     | 369                                    | 95                                         | 99                               | 3,363                        | 83      |
|                              |                   | —       | 84                                     | 125                                        | 41                               | 1,721                        | 26      |
| PHILIPPINES <sup>(7)</sup>   | 1991              | 9,735   | 12,834                                 | 8,972                                      | —                                | 117,713                      | 1,880   |
| SINGAPORE <sup>(8)</sup>     | 1992              | 17      | 162                                    | 35                                         | 361                              | 1,747                        | 41      |
| THAILAND <sup>(9)</sup>      | 1992              | —       | 7,348                                  | 79,312                                     | 63,005                           | 20,386                       | 606     |

Source : (1) Disease Control Unit, Health Department  
(2) Directorate General of CDC, Ministry of Health  
(3) *Statistics on Communicable Diseases*, Ministry of Health and Welfare  
(4) *Statistics of Food Poisoning*, Ministry of Health and Welfare  
(5) *Annual Report of Surveillance of Tuberculosis and Infectious Diseases*,  
Ministry of Health & Welfare  
(6) Health Division, Ministry of Health

(7) *Philippine Health Statistics*, Health Intelligence Service,  
Department of Health  
(8) Ministry of the Environment and Ministry of Health  
(9) *Annual Epidemiological Surveillance Report 1992*,  
Ministry of Public Health

| 032        | 052        | 070                                             | 071    | 084       | 487                   | 033               | 036                        | 037     | 055     |
|------------|------------|-------------------------------------------------|--------|-----------|-----------------------|-------------------|----------------------------|---------|---------|
| Diphtheria | Chickenpox | Viral<br>Hepatitis<br>(A,B,Non · A,<br>Non · B) | Rabies | Malaria   | Influenza<br>(Grippe) | Whooping<br>Cough | Meningococcal<br>Infection | Tetanus | Measles |
| —          | 1,265      | 21                                              |        | 23        |                       | —                 |                            | —       | 64      |
| 1,335      | —          | 76,577                                          | 3,251  | 1,647,359 | 1,868,227             | 30,759            | —                          | 6,896   | 106,277 |
| 4          | 183,129    | 5,211 <sup>a)</sup>                             | —      | 51        | 6,053                 | 391               | 11                         | 47      | 2,250   |
| 4          | —          | 1,097                                           | 1      | 36,853    | —                     | 25                | —                          | 42      | 378     |
| 1          | —          | 909                                             | 1      | 9,330     | —                     | 25                | —                          | 11      | 359     |
| 3          | —          | 118                                             | —      | 2,609     | —                     | —                 | —                          | 31      | 9       |
| —          | —          | 70                                              | —      | 1,429     | —                     | —                 | —                          | —       | 10      |
| 997        | 42,211     | 11,650                                          | 99     | 48,437    | 466,074               | 4,439             | 172                        | 1,702   | 35,418  |
| 1          | 29,976     | 596                                             | —      | 221       |                       | 14                |                            |         | 606     |
| 40         | 38,391     | 18,442 <sup>b)</sup>                            | 113    | 77,727    | 49,794                | 414               | 38                         | 588     | 8,704   |

Note : a) Cases treated in large hospitals only  
b) Including unspecified

### 5 – 1 Morbidity Statistics (ICD-9) (Contd.)

|                              |      | 056     | 072    | 279.5                | 045                         | 047 – 049<br>062 – 064                     | 060, 061,<br>065                   | 125        | 120                  | 090 – 097 | 098                      | 099                           |
|------------------------------|------|---------|--------|----------------------|-----------------------------|--------------------------------------------|------------------------------------|------------|----------------------|-----------|--------------------------|-------------------------------|
|                              |      | Rubella | Mumps  | AIDS<br>(HIV)        | Acute<br>Polio-<br>myelitis | Viral<br>Meningitis<br>and<br>Encephalitis | Viral<br>Hemor-<br>rhagic<br>Fever | Filariasis | Schisto-<br>somiasis | Syphilis  | Gonococcal<br>Infections | Other<br>Venereal<br>Diseases |
| BRUNEI <sup>(1)</sup>        | 1992 | 8       | 33     |                      | —                           | 13                                         |                                    | 21         |                      | 15        | 85                       | 12                            |
| INDONESIA <sup>(2)</sup>     | 1992 | —       | —      | 28                   | 4,986                       | —                                          | 17,620                             | 4,280      | —                    | 6,767     | 43,621                   | —                             |
| JAPAN <sup>(3) (4) (5)</sup> | 1992 | 49,651  | 79,147 | 51<br>(HIV 493)      | —                           | —                                          | —                                  | —          | 5                    | 1,055     | 3,465                    | 13                            |
| MALAYSIA <sup>(6)</sup>      |      | —       | —      | 40                   | 3                           | 15                                         | —                                  | —          | —                    | 1,882     | 1,715                    | a)<br>48                      |
| Peninsular Malaysia          | 1992 | —       | —      | —                    | 2                           | 14                                         | —                                  | —          | —                    | 1,285     | 773                      | 48                            |
| Sabah                        |      | —       | —      | —                    | —                           | —                                          | —                                  | —          | —                    | 97        | 475                      | —                             |
| Sarawak                      |      | —       | —      | —                    | 1                           | 1                                          | —                                  | —          | —                    | 500       | 467                      | —                             |
| PHILIPPINES <sup>(7)</sup>   | 1991 | —       | —      | 13<br>(HIV 66)       | 1,622                       |                                            | 10,820                             | 965        | 25,705               | 235       | 4,063                    | —                             |
| SINGAPORE <sup>(8)</sup>     | 1992 | 381     | 1,981  | 18                   | —                           | 10                                         | 2,878                              |            |                      | 842       | 3,433                    | 3,730                         |
| THAILAND <sup>(9)</sup>      | 1992 | 1,540   | 15,332 | 1,341<br>(ARC 1,166) | 10                          | 2,739                                      | 41,125                             | 432        | —                    | 9,261     | 22,829                   | 28,455                        |

Note : a) Chancroid

## **6. Nutrition**

# 6 – 1 Per Capita Food Intake

|                            | Year | Energy (kcal / day) |                     |                   | Protein (g / day) |                    |                 | Fat (g / day) |                    |                 |
|----------------------------|------|---------------------|---------------------|-------------------|-------------------|--------------------|-----------------|---------------|--------------------|-----------------|
|                            |      | Total               | Vegetable Products  | Animal Products   | Total             | Vegetable Products | Animal Products | Total         | Vegetable Products | Animal Products |
| BRUNEI                     |      |                     |                     |                   |                   |                    |                 |               |                    |                 |
| INDONESIA <sup>(1)</sup>   | 1991 | 2,752               | 2,449               | 303               | 61.3              | 53.4               | 7.9             | 234           | —                  | —               |
|                            | 1992 | 2,991               | 2,607               | 384               | 67.7              | 58.4               | 9.3             | 305           | —                  | —               |
| JAPAN <sup>(2)</sup>       | 1992 | 2,058               | 1,574               | 484               | 80.1              | 37.6               | 42.5            | 58.4          | 29.9               | 28.5            |
| MALAYSIA <sup>(3)</sup>    | 1977 | <sup>a)</sup> 2,549 | <sup>a)</sup> 2,195 | <sup>a)</sup> 354 | 57.6              | 35.7               | 21.9            | 45.5          | 29.2               | 16.3            |
| PHILIPPINES <sup>(4)</sup> | 1987 | 1,753               | 1,541               | 212               | 49.7              | 31.1               | 18.6            | 30            | 19                 | 11              |
| SINGAPORE <sup>(5)</sup>   | 1983 | 2,922               | 2,266               | 657               | 71.8              | 39.0               | 32.8            | 70.1          | 21.6               | 48.5            |
| THAILAND <sup>(6)</sup>    | 1986 | 1,766               | 1,412               | 354               | 50.8              | 27.9               | 22.9            | 42.6          | 13.4               | 29.2            |

- Source : (1) *Welfare Indonesia*, Central Bureau of Statistics  
 (2) *National Nutrition Survey*, Health Promotion and Nutrition Division, Ministry of Health and Welfare  
 (3) *Food Balance Sheets 1975-77, Average and Per Capita Food Supplies 1961-65, Average 1967 to 1977*, FAO, 1980  
 (4) Actual Food Consumption Survey (Food Weighing Technique), Food and Nutrition Research Institute, Department of Science & Technology 1987  
 (5) *Food Supplies Analyses*, FAO, Rome 1984  
 (6) Nutrition Division, Ministry of Public Health

Note : a) For 1982

6 – 1 Per Capita Food Intake (Contd.)

|             | Year | Calcium<br>(mg / day) | Iron<br>(mg / day) | Vitamin A<br>(mg / day) | Vitamin B <sub>1</sub><br>(mg / day) | Vitamin B <sub>2</sub><br>(mg / day) | Vitamin C<br>(mg / day) | Carbohydrate<br>(g / day) |
|-------------|------|-----------------------|--------------------|-------------------------|--------------------------------------|--------------------------------------|-------------------------|---------------------------|
| BRUNEI      |      |                       |                    |                         |                                      |                                      |                         |                           |
| INDONESIA   | 1987 | 215                   | 10.0               | <sup>a)</sup><br>1,096  | 1.18                                 |                                      | 142                     |                           |
| JAPAN       | 1992 | 539                   | 11.3               | <sup>a)</sup><br>2,649  | 1.25                                 | 1.36                                 | 122                     | 289                       |
| MALAYSIA    | 1977 | 330                   | 13.5               | 135                     | 0.87                                 | 0.79                                 | 44                      |                           |
| PHILIPPINES | 1987 | 420                   | 10.7               | <sup>b)</sup><br>390    | 0.68                                 | 0.56                                 | 54                      | 313                       |
| SINGAPORE   | 1983 | 656                   | 21.8               | 269                     | 1.59                                 | 1.38                                 | 76                      |                           |
| THAILAND    | 1986 | 301                   | 11.8               | <sup>a)</sup><br>4,679  | 0.89                                 | 0.73                                 | 96                      |                           |

Note : a) Unit = IU

b) Unit = Retinol Equivalent, mcg.

## 6 – 2 Mean Length of Infants from Birth to One Year

(cm)

|                            | Population or Place | Year | Sex | Age   |       |       |       |       |        |
|----------------------------|---------------------|------|-----|-------|-------|-------|-------|-------|--------|
|                            |                     |      |     | Birth | 4 wks | 3 mos | 6 mos | 9 mos | 12 mos |
| BRUNEI                     |                     |      |     |       |       |       |       |       |        |
| INDONESIA <sup>(1)</sup>   | Bogor               | 1978 | M   | 49.7  | 53.8  | 60.4  | 66.6  | 70.3  | 73.3   |
|                            |                     |      | F   | 49.1  | 52.9  | 58.9  | 64.5  | 68.5  | 71.9   |
| JAPAN <sup>(2)</sup>       | National            | 1990 | M   | 49.6  | 56.7  | 63.2  | 68.5  | 72.0  | 75.4   |
|                            |                     |      | F   | 48.9  | 55.6  | 61.5  | 66.8  | 70.6  | 74.2   |
| MALAYSIA                   |                     |      |     |       |       |       |       |       |        |
| PHILIPPINES <sup>(3)</sup> | National            | 1987 | M   | 49.9  | 53.7  | 59.7  | 65.9  | 69.4  | 81.3   |
|                            |                     |      | F   | 48.7  | 52.2  | 58.1  | 64.2  | 68.0  | 74.6   |
| SINGAPORE <sup>(4)</sup>   | Malays              | 1972 | M   |       |       | 60.2  | 65.3  |       | 73.6   |
|                            |                     |      | F   |       |       | 59.5  | 64.0  |       | 71.5   |
|                            | Chinese             | 1972 | M   |       |       | 61.8  | 66.5  | 71.0  | 74.5   |
|                            |                     |      | F   |       |       | 60.0  | 65.0  | 69.5  | 73.0   |
| THAILAND <sup>(5)</sup>    | Bangkok             | 1976 | M   | 50.5  | 56.1  | 62.0  | 67.8  | 71.9  | 73.5   |
|                            |                     |      | F   | 49.9  | 55.0  | 60.3  | 65.9  | 69.6  | 72.2   |

Source : (1) *Indonesian Nutrition*, Vol. X, No. 1, 1985

(2) Ministry of Health and Welfare

(3) Food and Nutrition Research Institute

(4) Ministry of Health

(5) *Worldwide Variation in Human Growth*, Cambridge University Press, 1976

6 – 3 Mean Weight of Infants from Birth to One Year

(kg)

|                            | Population or Place | Year | Sex | Age    |       |       |       |       |        |
|----------------------------|---------------------|------|-----|--------|-------|-------|-------|-------|--------|
|                            |                     |      |     | Birth  | 4 wks | 3 mos | 6 mos | 9 mos | 12 mos |
| BRUNEI                     |                     |      |     |        |       |       |       |       |        |
| INDONESIA <sup>(1)</sup>   | Bogor               | 1978 | M   | 3.2    | 4.2   | 5.9   | 7.5   | 8.4   | 8.9    |
|                            |                     |      | F   | 3.0    | 3.9   | 5.5   | 6.9   | 7.7   | 8.5    |
| JAPAN <sup>(2)</sup>       | National            | 1990 | M   | 3.2    | 5.1   | 6.9   | 8.1   | 9.0   | 9.6    |
|                            |                     |      | F   | 3.1    | 4.7   | 6.3   | 7.5   | 8.4   | 9.0    |
| MALAYSIA <sup>(3)</sup>    | Peninsular Malaysia | 1990 | T   | 3.2    |       |       |       |       |        |
| PHILIPPINES <sup>(4)</sup> | National            | 1987 | M   | 3.2    | 4.2   | 5.8   | 7.2   | 7.9   | 9.3    |
|                            |                     |      | F   | 3.0    | 3.9   | 5.3   | 6.7   | 7.4   | 9.0    |
| SINGAPORE <sup>(5)</sup>   | Malays              | 1972 | M   | a) 3.2 |       | 6.0   | 7.2   | 8.1   | 8.8    |
|                            |                     |      | F   |        |       | 5.5   | 6.3   | 7.4   | 8.0    |
|                            | Chinese             | 1972 | M   |        |       | 6.5   | 8.1   | 8.9   | 9.2    |
|                            |                     |      | F   | a) 3.1 |       | 6.5   | 8.0   | 8.8   | 8.9    |
| THAILAND <sup>(6)</sup>    | Bangkok             | 1976 | M   | 3.1    | 4.7   | 6.4   | 7.7   | 8.6   | 9.1    |
|                            |                     |      | F   | 3.0    | 4.5   | 5.6   | 7.3   | 8.0   | 8.5    |

Source : (1) *Indonesian Nutrition*, Vol. X. No 1, 1985

(2) Ministry of Health and Welfare

(3) Ministry of Health

(4) Food and Nutrition Research Institute

(5) Ministry of Health

(6) *Worldwide Variation in Human Growth*, Cambridge University Press, 1976

Note : a) For 1992, whole national population



6 – 4 Mean Chest Circumference of Infants from Birth to One Year

(cm)

|                            | Population or Place | Year | Sex | Age   |       |       |       |       |        |
|----------------------------|---------------------|------|-----|-------|-------|-------|-------|-------|--------|
|                            |                     |      |     | Birth | 4 wks | 3 mos | 6 mos | 9 mos | 12 mos |
| BRUNEI                     |                     |      |     |       |       |       |       |       |        |
| INDONESIA <sup>(1)</sup>   | Bogor               | 1976 | T   |       | 36.3  | 40.4  | 43.1  | 44.5  | 45.4   |
| JAPAN <sup>(2)</sup>       | National            | 1990 | M   | 32.2  | 38.6  | 42.2  | 44.2  | 45.6  | 46.5   |
|                            |                     |      | F   | 32.0  | 37.6  | 41.0  | 43.1  | 44.5  | 45.4   |
| MALAYSIA                   |                     |      |     |       |       |       |       |       |        |
| PHILIPPINES <sup>(3)</sup> | National            | 1987 | M   | 34.5  | 37.8  | 41.7  | 43.5  | 44.1  | 46.1   |
|                            |                     |      | F   | 34.3  | 36.8  | 40.0  | 42.1  | 43.2  | 45.0   |
| SINGAPORE                  |                     |      |     |       |       |       |       |       |        |
| THAILAND <sup>(4)</sup>    | Bangkok             | 1976 | M   | 32.0  | 37.9  | 41.0  | 43.4  | 44.7  | 45.8   |
|                            |                     |      | F   | 31.9  | 37.5  | 40.1  | 42.7  | 43.5  | 44.1   |

Source : (1) *Barita Ilmu Pengetahuan dan Teknologi*, LIPI, 1980  
 (2) Ministry of Health and Welfare  
 (3) Food and Nutrition Research Institute  
 (4) *Worldwide Variation in Human Growth*, Cambridge University Press, 1976

6 – 5 Mean Height by Age (1–18 years)

|                            | Population or Place                                     | Year               | Sex | Age                    |                        |                        |                         |                         |       |       |
|----------------------------|---------------------------------------------------------|--------------------|-----|------------------------|------------------------|------------------------|-------------------------|-------------------------|-------|-------|
|                            |                                                         |                    |     | 1                      | 2                      | 3                      | 4                       | 5                       | 6     | 7     |
| BRUNEI                     |                                                         |                    |     |                        |                        |                        |                         |                         |       |       |
| INDONESIA <sup>(1)</sup>   | West Sumatra,<br>Central Java and<br>West Nusa Tenggara | 1989 <sup>a)</sup> | M   |                        |                        |                        |                         | 106.9                   | 109.6 | 112.1 |
|                            |                                                         | 1993 <sup>b)</sup> | F   |                        |                        |                        |                         | 106.3                   | 109.1 | 111.0 |
| JAPAN <sup>(2)</sup>       | National                                                | 1992               | M   | 80.7                   | 89.6                   | 97.9                   | 103.9                   | 109.5                   | 116.2 | 122.1 |
|                            |                                                         |                    | F   | 79.4                   | 88.3                   | 96.0                   | 102.9                   | 110.1                   | 115.8 | 121.7 |
| MALAYSIA <sup>(3)</sup>    | National                                                | 1960               | M   |                        |                        |                        |                         |                         |       | 109.7 |
|                            |                                                         |                    | F   |                        |                        |                        |                         |                         | 105.4 | 109.7 |
| PHILIPPINES <sup>(4)</sup> | National                                                | 1987               | M   | 75.7                   | 84.6                   | 91.0                   | 97.9                    | 102.9                   | 108.4 | 114.2 |
|                            |                                                         |                    | F   | 75.0                   | 83.0                   | 90.9                   | 96.9                    | 102.6                   | 108.1 | 113.9 |
| SINGAPORE <sup>(5)</sup>   | National                                                | 1992               | M   |                        |                        |                        |                         |                         | 120.0 | 125.6 |
|                            |                                                         |                    | F   |                        |                        |                        |                         |                         | 119.0 | 124.6 |
| THAILAND <sup>(6)</sup>    | Bangkok <sup>c)</sup>                                   | 1984               | M   | <sup>(3)</sup><br>73.5 | <sup>(3)</sup><br>83.8 | <sup>(3)</sup><br>93.5 | <sup>(3)</sup><br>100.5 | <sup>(3)</sup><br>105.0 | 113.5 | 116.9 |
|                            | Ubonratchathani <sup>d)</sup>                           | 1992               | F   | 72.2                   | 84.0                   | 93.0                   | 99.0                    | 103.5                   | 115.7 | 116.2 |

Source: (1) *Report on Height and Growth of Young Man in the Area of Malnutrition in 1988/89*, Ministry of Population and Environment and Centre for Nutrition Research and Development, 1989 for a) and Centre for Nutrition Research and Development for b)

(2) *National Nutrition Survey*, Health Service Bureau, Ministry of Health and Welfare

(3) *Worldwide Variation in Human Growth*, Cambridge University Press, 1976

(4) Food and Nutrition Research Institute

(5) School Health Service (SHS), Ministry of Health

(6) *Ubon Child Growth Study*, Fuji Technology Press, 1992

Note: a) 14–18 years of age

b) 5–12 years of age

c) 1–5 years of age

d) 6–18 years of age

(cm)

| Age            |                |                |                |                |                |                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 8              | 9              | 10             | 11             | 12             | 13             | 14             | 15             | 16             | 17             | 18             |
|                |                |                |                |                |                |                |                |                |                |                |
| 114.9<br>114.8 | 117.9<br>117.6 | 121.9<br>120.0 | 125.7<br>122.4 | 128.9<br>130.0 |                | 151.3<br>148.9 | 155.2<br>149.7 | 159.7<br>150.9 | 161.3<br>151.6 | 162.9<br>151.7 |
| 127.7<br>126.5 | 132.0<br>131.3 | 138.7<br>140.2 | 145.2<br>147.5 | 150.3<br>151.9 | 157.2<br>154.3 | 164.0<br>156.6 | 167.4<br>157.5 | 169.7<br>158.3 | 170.5<br>157.0 | 171.1<br>159.1 |
| 111.8<br>112.8 | 114.3<br>117.9 | 121.9<br>123.4 | 129.3<br>131.8 | 133.4<br>137.2 | 138.4          | 141.4          |                |                |                |                |
| 118.4<br>118.8 | 123.0<br>123.4 | 126.8<br>128.9 | 131.7<br>135.2 | 137.8<br>140.8 | 144.7<br>144.8 | 149.5<br>147.6 | 155.1<br>149.8 | 159.2<br>150.4 | 161.2<br>150.6 | 163.0<br>151.3 |
| 130.8<br>130.8 |                |                | 148.6<br>149.7 |                |                |                | 169.7<br>158.9 |                |                |                |
| 123.1<br>121.1 | 127.0<br>127.2 | 130.9<br>133.9 | 137.5<br>139.5 | 141.8<br>148.1 | 148.9<br>147.7 | 155.1<br>149.4 | 158.3<br>150.9 | 162.4<br>154.5 | 163.1<br>153.6 | 163.1<br>153.6 |

6 – 6 Mean Weight by Age (1–18 years)

|                            | Population or Place           | Year | Sex    | Age                   |                        |                        |                        |                        |              |              |
|----------------------------|-------------------------------|------|--------|-----------------------|------------------------|------------------------|------------------------|------------------------|--------------|--------------|
|                            |                               |      |        | 1                     | 2                      | 3                      | 4                      | 5                      | 6            | 7            |
| BRUNEI                     |                               |      |        |                       |                        |                        |                        |                        |              |              |
| INDONESIA <sup>(1)</sup>   | National                      | 1977 | M<br>F |                       | 10.4<br>10.1           | 12.1<br>11.6           | 13.8<br>13.2           | 15.5<br>14.5           | 15.7<br>15.7 | 18.2<br>17.0 |
| JAPAN <sup>(2)</sup>       | National                      | 1992 | M<br>F | 10.9<br>10.3          | 13.0<br>12.2           | 15.2<br>14.4           | 17.0<br>16.6           | 18.7<br>18.7           | 20.8<br>21.1 | 24.5<br>23.9 |
| MALAYSIA <sup>(3)</sup>    | National                      | 1960 | M<br>F |                       |                        |                        |                        |                        | 16.4         | 17.8<br>18.6 |
| PHILIPPINES <sup>(4)</sup> | National                      | 1987 | M<br>F | 9.3<br>9.0            | 11.3<br>10.7           | 12.7<br>12.4           | 14.4<br>13.8           | 15.5<br>15.2           | 17.3<br>16.7 | 19.1<br>18.8 |
| SINGAPORE <sup>(5)</sup>   | National                      | 1992 | M<br>F |                       |                        |                        |                        |                        | 22.9<br>21.8 | 25.7<br>24.6 |
| THAILAND <sup>(6)</sup>    | Bangkok <sup>a)</sup>         | 1984 | M      | <sup>(3)</sup><br>9.1 | <sup>(3)</sup><br>11.0 | <sup>(3)</sup><br>13.4 | <sup>(3)</sup><br>15.1 | <sup>(3)</sup><br>16.8 | 18.8         | 20.4         |
|                            | Ubonratchathani <sup>b)</sup> | 1992 | F      | 8.5                   | 10.9                   | 13.0                   | 14.5                   | 16.1                   | 18.0         | 19.5         |

Source : (1) Ohsawa's Laboratory, Otsuma Women's University  
 (2) *National Nutrition Survey*, Health Service Bureau, Ministry of Health and Welfare  
 (3) *Worldwide Variation in Human Growth*, Cambridge University Press, 1976  
 (4) Food and Nutrition Research Institute  
 (5) School Health Service, Ministry of Health  
 (6) *Ubon Child Growth Study*, Fuji Technology Press, 1992

Note : a) 1–5 years of age  
 b) 6–18 years of age

(kg)

| Age          |              |              |              |              |              |              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 8            | 9            | 10           | 11           | 12           | 13           | 14           | 15           | 16           | 17           | 18           |
|              |              |              |              |              |              |              |              |              |              |              |
| 19.9<br>19.2 | 21.3<br>21.0 | 23.3<br>23.4 | 25.7<br>26.3 | 27.3<br>30.3 | 31.8<br>33.4 | 37.1<br>37.6 | 40.9<br>40.4 | 44.7<br>43.2 | 46.9<br>44.6 | 48.7<br>45.9 |
| 27.3<br>25.8 | 29.7<br>28.6 | 34.0<br>35.2 | 39.8<br>39.7 | 41.4<br>43.1 | 47.4<br>46.1 | 53.4<br>51.0 | 56.4<br>51.4 | 61.0<br>53.1 | 61.6<br>52.0 | 63.5<br>52.8 |
| 19.5<br>18.7 | 20.7<br>21.8 | 24.2<br>24.0 | 27<br>28.5   | 29.5<br>30.0 | 32.5         | 35.5         |              |              |              |              |
| 20.6<br>20.8 | 22.6<br>22.9 | 24.3<br>25.7 | 26.9<br>29.3 | 30.6<br>33.3 | 35.2<br>36.8 | 38.8<br>40.4 | 43.1<br>43.3 | 47.3<br>45.3 | 49.5<br>46.0 | 51.9<br>46.3 |
| 28.9<br>27.7 |              |              | 41.5<br>41.0 |              |              |              | 58.8<br>50.5 |              |              |              |
| 23.4<br>21.6 | 24.8<br>24.0 | 25.9<br>29.4 | 30.3<br>31.6 | 31.1<br>38.4 | 37.9<br>38.4 | 44.9<br>40.7 | 46.7<br>45.0 | 51.0<br>47.8 | 51.8<br>47.4 | 53.0<br>49.1 |

## **7. Environmental Health and Socio-economic Situation**

## 7 - 1 Housing Conditions

(%)

|                            | Year |                     | Percentage of Households in Occupied Dwelling Units with Piped Water | Percentage of Households in Occupied Dwelling Units by Type of Toilet |                       |       |      | Lighting    |                     |          |       |          |
|----------------------------|------|---------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------|-------|------|-------------|---------------------|----------|-------|----------|
|                            |      |                     |                                                                      | Flush / Water                                                         | Pit or Moulded Bucket | Other | None | Electricity | Pressure / Gas Lamp | Oil Lamp | Other | Kerosene |
| BRUNEI                     | 1981 | Total               | 90.1                                                                 | 54.6                                                                  | 2.8                   | 38.6  | 4.1  | 85.7        | 2.7                 | 10.9     | 0.7   | —        |
| INDONESIA <sup>(1)</sup>   | 1993 | Total               | 14.7                                                                 | 24.7                                                                  | 23.0                  |       |      |             |                     |          |       |          |
|                            |      | Urban               | 53.6                                                                 | 19.5                                                                  | 19.4                  |       | 24.7 |             |                     |          |       |          |
|                            |      | Rural               | 5.4                                                                  | 11.0                                                                  | 24.8                  |       |      |             |                     |          |       |          |
| JAPAN <sup>(2)</sup>       | 1988 | Total               | 94.0 <sup>a)</sup>                                                   | 67.2                                                                  | 32.8                  | —     | —    |             |                     |          |       |          |
| MALAYSIA <sup>(3)</sup>    | 1980 | Total               | 65.0                                                                 | 56.4                                                                  | 22.7                  | 4.4   | 16.5 | 64.4        | 8.4                 | 26.5     | 0.7   | —        |
|                            |      | Peninsular Malaysia | 68.0                                                                 | 60.7                                                                  | 21.7                  | 3.6   | 14.7 | 68.4        | 7.3                 | 23.6     | 0.7   | —        |
|                            |      | Sabah               | 50.3                                                                 | 32.1                                                                  | 32.9                  | 8.1   | 26.9 | 45.0        | 15.7                | 28.7     | 0.6   | —        |
|                            |      | Sarawak             | 47.8                                                                 | 56.4                                                                  | 22.7                  | 4.4   | 16.5 | 41.6        | 13.2                | 44.5     | 0.7   | —        |
|                            |      |                     |                                                                      |                                                                       |                       |       |      |             |                     |          |       |          |
| PHILIPPINES <sup>(4)</sup> | 1990 | Total               | 73.0                                                                 | 67.6 <sup>b)</sup>                                                    | 14.4                  | 2.0   | 16.0 | 55.1        | 1.7 <sup>c)</sup>   | 0.1      | 0.5   | 49.6     |
|                            |      | Urban               | 89.4                                                                 | 83.6 <sup>b)</sup>                                                    | 6.0                   | 1.9   | 8.5  | 79.2        | 1.2 <sup>c)</sup>   | 0.1      | 0.2   | 19.3     |
|                            |      | Rural               | 57.2                                                                 | 52.2 <sup>b)</sup>                                                    | 22.4                  | 2.1   | 23.3 | 31.9        | 2.1 <sup>c)</sup>   | 0.2      | 0.7   | 65.1     |
| SINGAPORE <sup>(5)</sup>   | 1992 | Total               | 99.5                                                                 | 100.0                                                                 |                       | —     |      | 96.1        |                     | 3.9      |       |          |
| THAILAND <sup>(6)</sup>    | 1990 | Total               | 29.7                                                                 | 78.1                                                                  | 2.0                   | 7.9   | 11.9 | 87.3        | 0.4                 | 11.5     | 0.8   | —        |

Source : (1) *Welfare Indicators*, Central Bureau of Statistics  
 (2) *Housing Survey of Japan, Vol. 1. Part 1*, Statistics Bureau, March 1988  
 (3) *Census of Housing, Malaysia 1980 Summary Report*, Department of Statistics, July 1982  
 (4) *Census of Population and Housing*, National Statistics Office  
 (5) Public Utilities Board and Ministry of the Environment

(6) *1990 Population & Housing Census, Whole Kingdom*, National Statistical Office

Note : a) For 1983  
 b) Includes closed pit  
 c) Liquefied petroleum gas

## 7 – 2 Socio-economic Indicators

|                          | Year | Literacy Rates<br>(%)  | Year | Per Capita GNP <sup>a)</sup><br>(in US \$) | Year | Labour Force<br>Participation Rate<br>(%) |
|--------------------------|------|------------------------|------|--------------------------------------------|------|-------------------------------------------|
| BRUNEI                   | 1991 | <sup>b)</sup><br>89.2  | 1992 | 6,767                                      | 1991 | <sup>c)</sup><br>65.6                     |
| INDONESIA                | 1992 | <sup>d)</sup><br>83.0  | 1992 | 720                                        | 1991 | 57.1                                      |
| JAPAN                    | 1992 | <sup>e)</sup><br>99.99 | 1992 | 30,098                                     | 1992 | <sup>(1)</sup><br>64.0                    |
| MALAYSIA <sup>(2)</sup>  | 1980 | Male: 80<br>Female: 64 | 1992 | 2,892                                      | 1992 | 66.7                                      |
| PHILIPPINES              | 1991 | <sup>(3)</sup><br>93.5 | 1991 | <sup>(3)</sup><br>729                      | 1991 | <sup>(4)</sup><br>64.5                    |
| SINGAPORE <sup>(5)</sup> | 1992 | <sup>f)</sup><br>91.1  | 1992 | 14,020                                     | 1992 | <sup>g)</sup><br>65.3                     |
| THAILAND <sup>(6)</sup>  | 1984 | <sup>h)</sup><br>87.7  | 1991 | 1,628                                      | 1998 | 74.4                                      |

Source : (1) *Labour Force Survey*, Statistics Bureau, Management and Coordination Agency

(2) *Economic Report 1993 / 1994*

(3) National Statistics Office

(4) *Philippine Statistical Yearbook*, National Statistical Coordinating Board

(5) *Year Book of Statistics, Singapore 1993*, Department of Statistics

(6) Office of the National Economic and Social Development Board

Note : a) Figures for each country except Indonesia and Malaysia converted into US \$ by SEAMIC / IMFJ, using yearly average exchange rates shown in IMF International Financial Statistics

b) Age 9 years and over

c) Age 15 years and over

d) Age 10 years and over

e) Children enrolled

f) Per 100 resident population aged 10 years and over

g) Per 100 population aged 15 years and over

h) 7 years old



### 7 – 3 Expenditure of the Ministry of Health

|                     | Fiscal Year | Total Health Budget<br>(in US \$) | Health Budget<br>as % of<br>National<br>Budget | Per Capita<br>Health Budget<br>(in US \$) | Health Expenditure (in US \$) |                      |                          |                                                |
|---------------------|-------------|-----------------------------------|------------------------------------------------|-------------------------------------------|-------------------------------|----------------------|--------------------------|------------------------------------------------|
|                     |             |                                   |                                                |                                           | Total                         | Personal<br>Services | Maintenance<br>and Other | Capital Outlay<br>(Development<br>Expenditure) |
| BRUNEI              | 1992        | 78,603,868                        | 4.2                                            | 291.00                                    | 78,603,868                    | 41,211,880           | 27,034,705               | 10,357,283 <sup>a)</sup>                       |
| INDONESIA           | 1991        | 480,167,150                       | 1.9                                            | 1.67                                      |                               |                      |                          |                                                |
| JAPAN <sup>b)</sup> | 1992        | 100,805,582,313                   | 17.7                                           | 816.40                                    |                               |                      |                          |                                                |
| MALAYSIA            | 1992        | 923,560,729                       | 5.8                                            | 48.62                                     | 934,994,430                   | 701,232,058          |                          | 233,762,372                                    |
| PHILIPPINES         | 1992        | 400,930,772                       | 5.3                                            | 6.13                                      | 400,930,772                   | 199,515,955          | 184,649,745              | 16,765,073                                     |
| SINGAPORE           | 1992        | 499,263                           |                                                | 177.16                                    | 472,427                       | 110,632              | 261,160                  | 100,635                                        |
| THAILAND            | 1992        | 970,094,488                       | 5.4                                            | 16.80                                     |                               |                      |                          |                                                |

Source : Ministry of Health in each country

Note : Figures for each country except Philippines converted into US \$ by SEAMIC / IMFJ, using yearly average exchange rates shown in IMF International Financial Statistics

a) Excluding average yearly developmental project expenditure

b) Including budget for social welfare

## **8. Medical Establishments**

## 8 – A Definitions Used in Hospital Statistics (WHO)

|                                           | Definition                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Hospital                               | Any establishment permanently staffed by at least one physician that can offer inpatient accommodation and provide active medical and nursing care. Establishments providing principally custodial care should not be included.                                                                                                                  |
| 2. General Hospital (principal)           | A hospital—other than local or rural hospitals providing medical and nursing care for more than one category of medical discipline (e.g., general medicine, specialized medicine, general surgery, specialized surgery, obstetrics, etc.)                                                                                                        |
| 3. Local or Rural Hospital                | A hospital, usually in rural areas, permanently staffed by one or more physicians, which in respect of their functions is also a general hospital, but provides medical and nursing care of a more limited range than that provided by principal general hospitals.                                                                              |
| 4. Medical and Maternity Centre with Beds | A small unit, also known as rural health centre, bedded dispensary, a rural maternity home, etc., not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.), which offers inpatient accommodation and provides a limited range of medical and nursing care.                                                      |
| 5. Specialized Hospital                   | A hospital providing medical and nursing care primarily for only one discipline. This category does not include the specialized department administratively attached to a principal general hospital and sometimes located in an annex or separate building; their beds (and the related data) are included with the principal general hospital. |
| 6. Government Hospital                    | Any hospital administered by a government authority at any level, whether central, intermediate, or local.                                                                                                                                                                                                                                       |

|                                       | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. Private Non-profit-making Hospital | Any hospital, whether subsidized by the government or not, operated on a non-profit-making basis by a non-government body, such as a religious mission, an industrial enterprise, a trust, or a philanthropic institution.                                                                                                                                                                                                                                    |
| 8. Private Profit-making Hospital     | Any private hospital (or medical establishment with beds) operated on a profit-making basis.                                                                                                                                                                                                                                                                                                                                                                  |
| 9. Bed                                | A hospital bed is one regularly maintained and staffed for the accommodation and fulltime care of a succession of inpatients and is situated in wards or a part of the hospital where continuous medical care for inpatients is provided. The total of such beds constitutes the normally available bed complement of the hospital. Cribs and bassinets maintained for use by healthy newborn infants who do not require special care should not be included. |
| 10. Admission                         | An inpatient admission is the formal admission by a hospital of an inpatient and always involves the allocation of a hospital bed. Healthy babies born in the hospital should not be counted if they do not require special care.                                                                                                                                                                                                                             |
| 11. Discharges (including deaths)     | The number of persons, living or dead, whose stay has terminated and whose departure has been officially recorded.                                                                                                                                                                                                                                                                                                                                            |
| 12. Patient days                      | Total of daily censuses of inpatients in the hospitals during the year. Not included in the daily censuses are healthy babies born in the hospitals if they do not require special care. The day of admission and the day of discharge should be counted together as one day.                                                                                                                                                                                 |

### 8 – B Comparative Table on Medical Establishments

|                                | Brunei<br>(1992) | Indonesia<br>(1992) | Japan<br>(1992) | Malaysia (1992)        |                 |                 | Philippines<br>(1992) | Singapore<br>(1992) | Thailand<br>(1992) |
|--------------------------------|------------------|---------------------|-----------------|------------------------|-----------------|-----------------|-----------------------|---------------------|--------------------|
|                                |                  |                     |                 | Peninsular<br>Malaysia | Sabah           | Sarawak         |                       |                     |                    |
| 1 General Hospital             | V                | V                   | V               | V                      | V               | V               | V                     | V                   | V                  |
| 2 Local or Rural Hospital      |                  | V                   |                 | V <sup>a)</sup>        | V <sup>a)</sup> | V <sup>a)</sup> | V                     | V                   | V                  |
| 3 Medical Center               |                  |                     |                 |                        |                 |                 | V                     |                     |                    |
| 4 Maternity Hospital           |                  | V                   |                 |                        |                 |                 | V                     | V                   | V                  |
| 5 Infectious Diseases Hospital |                  | V                   | V               |                        |                 |                 | V                     | V                   | V                  |
| 6 Chronic Diseases Hospital    |                  |                     |                 |                        |                 |                 |                       | V                   |                    |
| 7 Leprosy Hospital             |                  | V                   | V               | V                      |                 | V               | V                     |                     | V                  |
| 8 Tuberculosis Hospital        |                  | V                   | V               | V                      |                 |                 | V                     |                     | V                  |
| 9 Pediatrics Hospital          |                  |                     |                 |                        |                 |                 | V                     |                     | V                  |
| 10 Ophthalmology Hospital      |                  | V                   |                 |                        |                 |                 |                       | V <sup>b)</sup>     | V                  |
| 11 Orthopedics Hospital        |                  | V                   |                 |                        |                 |                 | V                     |                     |                    |
| 12 Mental Hospital             |                  | V                   | V               | V                      | V               | V               | V                     | V                   | V                  |
| 13 Estab. for Drug Addicts     |                  | V                   |                 |                        |                 |                 | V                     |                     | V                  |
| 14 Other Specialized Hospital  |                  | V                   |                 |                        |                 |                 | V                     | V <sup>c)</sup>     | V                  |

Note : a) District & Divisional Hospitals  
b) Singapore National Eye Centre is an ophthalmology hospital only and provides only ambulatory care.  
c) National Skin Center is a dermatology hospital only and provides only ambulatory care. STD cases requiring inpatient treatment are admitted into an annexe of one of the acute hospitals.

8 – 1 Number of Hospitals

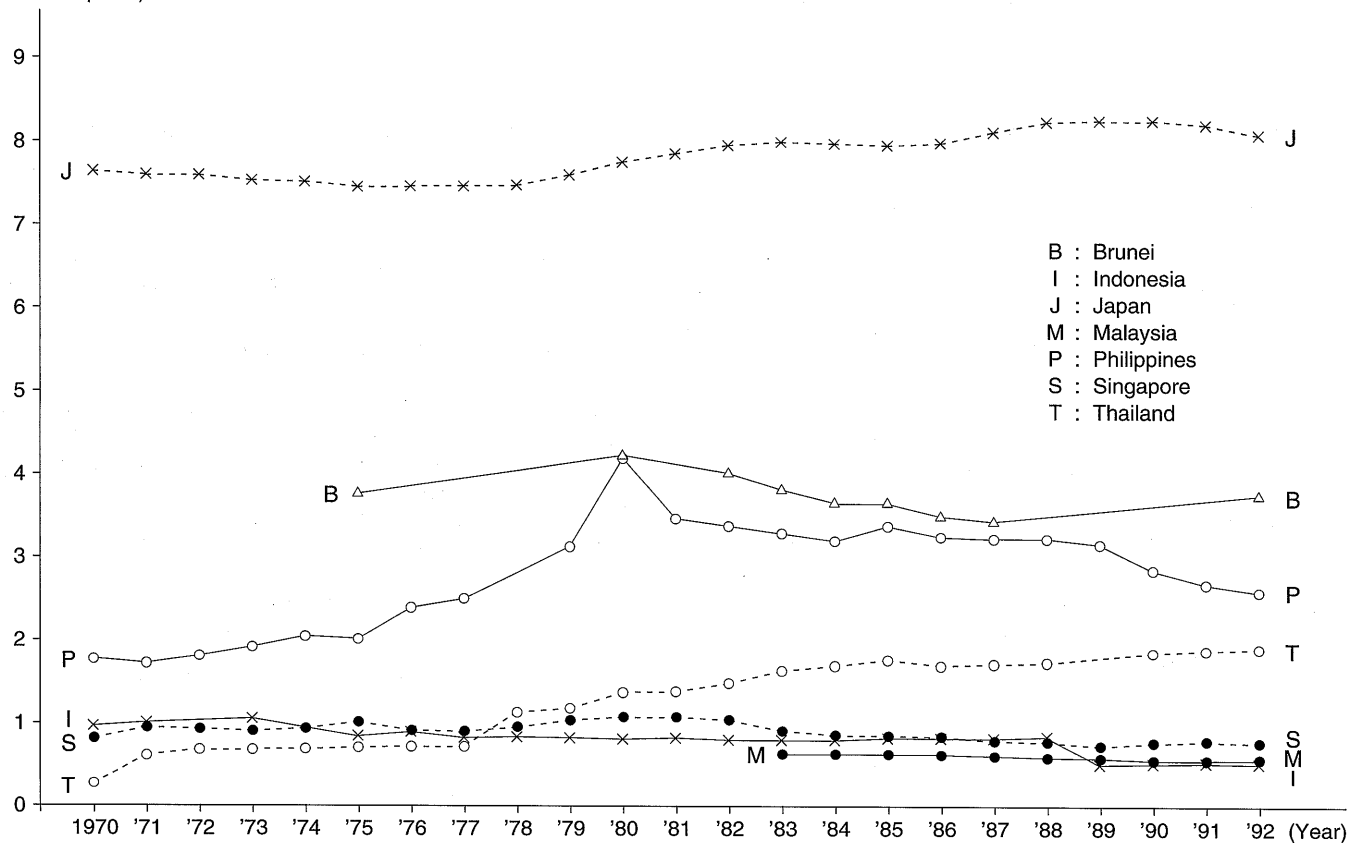
|             |         | 1970  | 1975  | 1980  | 1984  | 1985  | 1986   | 1987  | 1988   | 1989   | 1990   | 1991     | 1992     |
|-------------|---------|-------|-------|-------|-------|-------|--------|-------|--------|--------|--------|----------|----------|
| BRUNEI      | Total   |       | 6     | 8     | 8     | 8     | 8      | 8     |        |        |        |          | 10       |
| INDONESIA   |         | 1,164 | 1,115 | 1,208 | 1,306 | 1,367 | 1,408  | 1,436 | 1,500  | a) 924 | a) 950 | a) 982   | 994      |
| JAPAN       |         | 7,974 | 8,294 | 9,055 | 9,574 | 9,608 | 9,699  | 9,841 | 10,034 | 10,081 | 10,096 | 10,066   | 9,963    |
| MALAYSIA    |         |       |       |       | 98    | 101   | 101    | 102   | 102    | 102    | 102    | 104      | 107      |
| Peninsular  |         | 64    |       |       | 65    | 68    | 68     | 69    | 69     | 69     | 69     | 70       | 72       |
| Malaysia    |         |       |       |       |       |       |        |       |        |        |        |          |          |
| Sabah       |         |       | 15    |       | 16    | 16    | 16     | 16    | 16     | 16     | 16     | 16       | 16       |
| Sarawak     |         | 14    | 14    |       | 17    | 17    | 17     | 17    | 17     | 17     | 17     | 18       | 19       |
| PHILIPPINES | Total   | 650   | 927   | 2,020 | 1,706 | 1,846 | 1,815  | 1,846 | 1,805  | 1,805  | 1,726  | 1,663    | 1,691    |
|             | Public  | 220   | 316   | 413   | 527   | 612   | a) 624 | 617   | 619    | 619    | b) 594 | b) 562   | 582      |
|             | Private | 430   | 611   | 1,607 | 1,179 | 1,229 | 1,191  | 1,229 | 1,186  | 1,186  | 1,132  | 1,101    | 1,109    |
| SINGAPORE   | Total   | 17    | 23    | 26    | 22    | 22    | 22     | 21    | 21     | 20     | 21     | 22       | 22       |
|             | Public  | 11    | 13    | 13    | 11    | 11    | 11     | 10    | 10     | 10     | 11     | 11       | 12       |
|             | Private | 6     | 10    | 13    | 11    | 11    | 11     | 11    | 11     | 10     | 10     | 11       | 10       |
| THAILAND    | Total   | 98    | 281   | 636   | 850   | 910   | 888    | 910   | 941    |        | 1,043  | c) 1,064 | c) 1,097 |

Source : Ministry of Health in each country

Note : a) Excluding maternity hospitals  
b) Licensed only  
c) Only with beds

Fig. 5 Recent Trends in Number of Hospitals (Per 100,000 Population)

(Number of Hospitals)



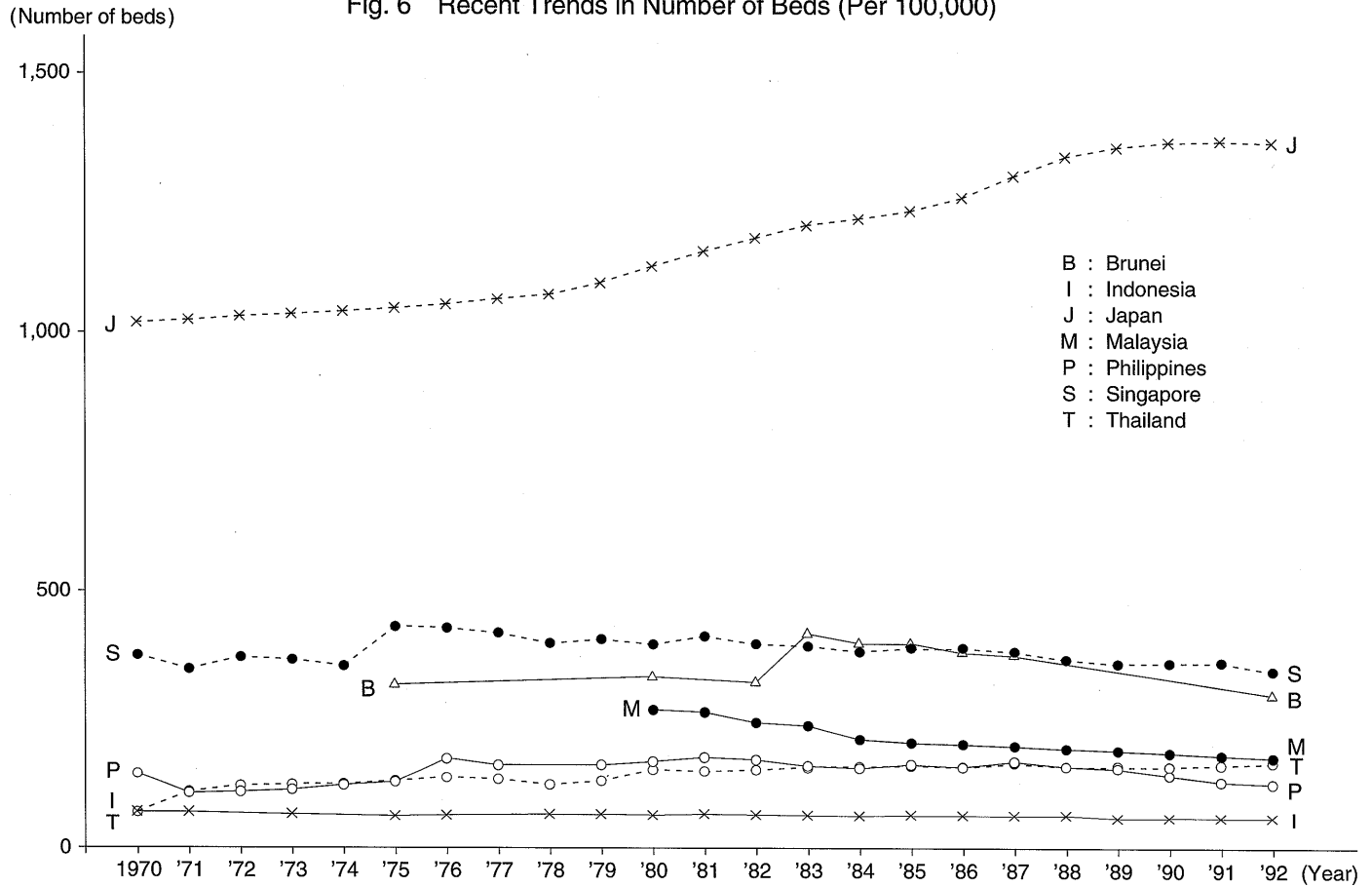
# 8 – 2 Number of Beds

|             |         | 1970      | 1975      | 1980      | 1984                 | 1985                 | 1986                 | 1987      | 1988      | 1989      | 1990      | 1991      | 1992      |
|-------------|---------|-----------|-----------|-----------|----------------------|----------------------|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| BRUNEI      |         |           | 506       | 630       | 876                  | 876                  | 876                  | 876       |           |           |           |           | 797       |
| INDONESIA   |         | 86,022    | 83,696    | 98,543    | 104,966              | 110,361              | 111,300              | 112,328   | 116,847   | 107,112   | 119,387   | 111,127   | 112,779   |
| JAPAN       |         | 1,062,553 | 1,164,098 | 1,319,406 | 1,467,050            | 1,495,328            | 1,533,887            | 1,582,393 | 1,634,309 | 1,661,952 | 1,676,803 | 1,685,589 | 1,686,696 |
| MALAYSIA    |         |           |           |           |                      |                      |                      |           |           |           |           |           |           |
| Peninsular  |         | 27,927    |           | 35,291    | 32,669               | 32,495               | 32,960               | 33,161    | 33,067    | 33,341    | 33,400    | 33,432    | 33,261    |
| Malaysia    |         |           |           | 29,792    | 26,993               | 26,491               | 27,185               | 27,272    | 27,174    | 27,445    | 27,504    | 27,462    | 27,206    |
| Sabah       |         |           | 2,233     | 2,670     | 2,534                | 2,809                | 2,799                | 2,799     | 2,803     | 2,799     | 2,803     | 2,803     | 2,812     |
| Sarawak     |         | 2,000     | 2,358     | 2,829     | 3,142                | 3,195                | 2,976                | 3,090     | 3,090     | 3,097     | 3,093     | 3,167     | 3,243     |
| PHILIPPINES | Total   | 40,289    | 55,323    | 81,976    | 84,142 <sup>a)</sup> | 90,279               | 89,668               | 97,735    | 90,414    | 90,414    | 86,948    | 81,647    | 83,113    |
|             | Public  | 19,725    | 27,075    | 39,625    | 45,187               | 47,861               | 48,045               | 57,470    | 50,703    | 50,703    | 48,602    | 46,338    | 45,971    |
|             | Private | 20,564    | 28,248    | 42,351    | 38,955               | 42,418               | 41,623               | 40,265    | 39,711    | 39,711    | 38,346    | 35,309    | 37,142    |
| SINGAPORE   | Total   | 7,760     | 9,311     | 9,585     | 9,687                | 10,000               | 10,111               | 10,027    | 9,730     | 9,644     | 9,759     | 9,801     | 9,726     |
|             | Public  | 6,891     | 8,211     | 8,078     | 8,085                | 8,329                | 8,274                | 8,191     | 7,893     | 7,852     | 7,922     | 7,892     | 7,833     |
|             | Private | 869       | 1,100     | 1,507     | 1,602                | 1,671                | 1,837                | 1,836     | 1,837     | 1,792     | 1,837     | 1,909     | 1,893     |
| THAILAND    | Total   | 25,619    | 52,652    | 71,718    | 81,070 <sup>b)</sup> | 84,045 <sup>b)</sup> | 84,438 <sup>b)</sup> | 89,633    | 88,009    | 89,982    | 90,740    | 93,852    | 97,856    |

Source : Ministry of Health in each country

Note : a) For 1982  
b) Including private maternity centres

Fig. 6 Recent Trends in Number of Beds (Per 100,000)





### 8-3 Hospitals and Other Medical Establishments with Beds

|                            | Year | 1 General Hospitals |              |                          |                  | 2 Local or Rural Hospitals |        |                          |              | 3 Medical Centres |        |                          |              |
|----------------------------|------|---------------------|--------------|--------------------------|------------------|----------------------------|--------|--------------------------|--------------|-------------------|--------|--------------------------|--------------|
|                            |      | Establishments      | Beds         | Admissions or Discharges | Patient-Days     | Establishments             | Beds   | Admissions or Discharges | Patient-Days | Establishments    | Beds   | Admissions or Discharges | Patient-Days |
| BRUNEI                     | 1992 | 10                  | a)<br>797    | a)<br>30,473             | a)<br>168,373    | ..                         |        |                          |              | ..                |        |                          |              |
| INDONESIA <sup>(1)</sup>   | 1992 | 810                 | 96,025       | 3,210,080                | 18,586,507       | 592                        | 42,683 | 1,404,232                | 7,941,093    | ..                |        |                          |              |
| JAPAN                      | 1992 | 8,877               | 1,411,751    | 10,498,297               | 415,106,962      | ..                         |        |                          |              | ..                |        |                          |              |
| MALAYSIA <sup>(2)</sup>    | 1992 | 16                  | 13,561       | 685,514                  | 3,466,339        | 84                         | 12,605 | 641,358                  | 2,415,241    | ..                |        |                          |              |
| Peninsular Malaysia        |      | 12                  | 11,653       | 576,601                  | 2,924,147        | 56                         | 9,360  | 469,696                  | 1,687,852    |                   |        |                          |              |
| Sabah                      |      | 3                   | 1,172        | 73,461                   | 347,700          | 12                         | 1,338  | 75,220                   | 277,428      |                   |        |                          |              |
| Sarawak                    |      | 1                   | 736          | 35,452                   | 194,492          | 16                         | 1,907  | 96,442                   | 449,961      |                   |        |                          |              |
| PHILIPPINES <sup>(3)</sup> | 1992 | 623                 | 41,403       | 1,379,751                | 6,649,824        | 508                        | 20,320 | 1,006,913                | 4,229,035    | 10                | 10,355 | 139,751                  | 882,110      |
| SINGAPORE                  | 1992 | 12                  | 5,652        | 295,577                  | 1,538,619        | 2                          | 122    | 1,719                    | 13,970       | ..                |        |                          |              |
| THAILAND <sup>(4)</sup>    | 1992 | b)<br>1,019         | b)<br>83,016 | 4,582,580                | b)<br>21,628,224 | 582                        | 14,335 |                          |              | ..                |        |                          |              |

Source : Ministry of Health in each country

(1) Directorate of Medical Care, Ministry of Health

(2) Information and Documentation System Unit

(3) Hospital Operation & Management Services, and Bureau of Licensing & Regulation, Department of Health

(4) Health Statistics Division, Ministry of Public Health

Note : a) Based on 4 government hospitals

b) Including community hospitals and pediatric hospital

| 4 Maternity Hospitals |       |                             |                  | 5 Infectious Diseases Hospitals |      |                             |                  | 6 Chronic Diseases Hospitals |      |                             |                  |
|-----------------------|-------|-----------------------------|------------------|---------------------------------|------|-----------------------------|------------------|------------------------------|------|-----------------------------|------------------|
| Establish-<br>ments   | Beds  | Admissions<br>or Discharges | Patient-<br>Days | Establish-<br>ments             | Beds | Admissions<br>or Discharges | Patient-<br>Days | Establish-<br>ments          | Beds | Admissions<br>or Discharges | Patient-<br>Days |
| ..                    |       |                             |                  | ..                              |      |                             |                  | ..                           |      |                             |                  |
| 52                    | 2,565 | 83,017                      | 342,046          | 1                               | 103  | 3,940                       | 13,091           | ..                           |      |                             |                  |
| ..                    |       |                             |                  | 7                               | 357  | 123                         | 6,326            | ..                           |      |                             |                  |
| ..                    |       |                             |                  | ..                              |      |                             |                  | ..                           |      |                             |                  |
| 1                     | 700   |                             |                  | 3                               | 975  | 26,821                      | 176,108          | ..                           |      |                             |                  |
| 1                     | 514   | 41,184                      | 152,528          | 1                               | 214  | 2,825                       | 23,481           | 1                            | 454  | 128                         | 110,347          |
| 8                     | 1,009 |                             |                  | 1                               | 400  |                             |                  | ..                           |      |                             |                  |

### 8 – 3 Hospitals and Other Medical Establishments with Beds (Contd.)

|                            | Year | 7 Leprosy Hospitals |       |                          |              | 8 Tuberculosis Hospitals |      |                          |              | 9 Pediatrics Hospitals |      |                          |              |
|----------------------------|------|---------------------|-------|--------------------------|--------------|--------------------------|------|--------------------------|--------------|------------------------|------|--------------------------|--------------|
|                            |      | Establish-ments     | Beds  | Admissions or Discharges | Patient-Days | Establish-ments          | Beds | Admissions or Discharges | Patient-Days | Establish-ments        | Beds | Admissions or Discharges | Patient-Days |
| BRUNEI                     | 1992 | ..                  |       |                          |              | ..                       |      |                          |              | ..                     |      |                          |              |
| INDONESIA <sup>(1)</sup>   | 1992 | 23                  | 2,815 | 2,728                    | 640,601      | 10                       | 734  | 8,818                    | 158,205      | ..                     |      |                          |              |
| JAPAN                      | 1992 | 16                  | 9,140 | 129                      | 2,318,405    | 11                       | 917  | 1,199                    | 239,519      | ..                     |      |                          |              |
| MALAYSIA <sup>(2)</sup>    | 1992 | 2                   | 1,098 | 2,388                    | 129,919      | 1                        | 259  | 2,461                    | 21,557       | ..                     |      |                          |              |
| Peninsular Malaysia        |      | 1                   | 836   | 2,366                    | 115,718      | 1                        | 259  | 2,461                    | 21,557       |                        |      |                          |              |
| Sabah Sarawak              |      | —                   | —     | —                        | —            | —                        | —    | —                        | —            |                        |      |                          |              |
|                            |      | 1                   | 262   | 22                       | 14,201       | —                        | —    | —                        | —            |                        |      |                          |              |
| PHILIPPINES <sup>(3)</sup> | 1992 | 8                   | 4,920 | 5,184                    | 284,934      | 1                        | 738  | 7,330                    | 429,420      | 2                      | 450  | 18,559                   | 128,215      |
| SINGAPORE                  | 1992 | ..                  |       |                          |              | ..                       |      |                          |              | ..                     |      |                          |              |
| THAILAND <sup>(4)</sup>    | 1992 | 6                   | 2,670 |                          |              | 1                        | 600  |                          |              | 1                      | 538  |                          |              |

| 10 Ophtalmology Hospitals |      |                             |                  | 11 Orthopedics Hospitals |      |                             |                  | 12 Mental Hospitals |         |                             |                  |
|---------------------------|------|-----------------------------|------------------|--------------------------|------|-----------------------------|------------------|---------------------|---------|-----------------------------|------------------|
| Establish-<br>ments       | Beds | Admissions<br>or Discharges | Patient-<br>Days | Establish-<br>ments      | Beds | Admissions<br>or Discharges | Patient-<br>Days | Establish-<br>ments | Beds    | Admissions<br>or Discharges | Patient-<br>Days |
| ..                        |      |                             |                  | ..                       |      |                             |                  | ..                  |         |                             |                  |
| 9                         | 627  | 8,658                       | 70,619           | 1                        | 200  | 1,592                       | 44,178           | 46                  | 8,115   | 31,885                      | 2,408,300        |
| ..                        |      |                             |                  | ..                       |      |                             |                  | 1,052               | 264,531 | 171,248                     | 93,896,116       |
| ..                        |      |                             |                  | ..                       |      |                             |                  | 4                   | 5,738   | 8,079                       | 1,550,341        |
| ..                        |      |                             |                  | ..                       |      |                             |                  | 2                   | 5,098   | 6,802                       | 1,379,053        |
| ..                        |      |                             |                  | ..                       |      |                             |                  | 1                   | 302     | 654                         | 58,194           |
| ..                        |      |                             |                  | ..                       |      |                             |                  | 1                   | 338     | 623                         | 113,094          |
| ..                        |      |                             |                  | 1                        | 700  | 8,414                       | 196,519          | 1                   | 5,200   |                             |                  |
| a)<br>1                   | ..   | ..                          | ..               | ..                       |      |                             |                  | 3                   | 2,770   | 6,009                       | 909,928          |
| 13                        | 60   |                             |                  | ..                       |      |                             |                  | 14                  | 8,251   |                             |                  |

Note : a) Singapore National Eye Centre provides only ambulatory care

### 8 – 3 Hospitals and Other Medical Establishments with Beds (Contd.)

|                                                                       | Year | 13 Establ. for Drug Addicts |      |                          |              | 14 Other Specialized Hospitals |       |                          |              | 15 Total        |                   |                          |                       |
|-----------------------------------------------------------------------|------|-----------------------------|------|--------------------------|--------------|--------------------------------|-------|--------------------------|--------------|-----------------|-------------------|--------------------------|-----------------------|
|                                                                       |      | Establish-ments             | Beds | Admissions or Discharges | Patient-Days | Establish-ments                | Beds  | Admissions or Discharges | Patient-Days | Establish-ments | Beds              | Admissions or Discharges | Patient-Days          |
| BRUNEI                                                                | 1992 | ..                          |      |                          |              | ..                             |       |                          |              | 10              | <sup>a)</sup> 797 | <sup>a)</sup> 30,473     | <sup>a)</sup> 168,373 |
| INDONESIA <sup>(1)</sup>                                              | 1992 | 1                           | 20   | 237                      | 3,361        | 39                             | 1,550 | 46,665                   | 215,813      | 994             | 112,779           | 3,457,745                | 22,479,903            |
| JAPAN                                                                 | 1992 | ..                          |      |                          |              | ..                             |       |                          |              | 9,963           | 1,686,696         | 10,670,996               | 511,567,328           |
| MALAYSIA <sup>(2)</sup><br>Peninsular<br>Malaysia<br>Sabah<br>Sarawak | 1992 | ..                          |      |                          |              | ..                             |       |                          |              | 107             | 33,261            | 1,339,800                | 7,583,397             |
|                                                                       |      |                             |      |                          |              |                                |       |                          |              | 72              | 27,206            | 1,057,926                | 6,128,327             |
|                                                                       |      |                             |      |                          |              |                                |       |                          |              | 16              | 2,812             | 149,335                  | 683,322               |
| PHILIPPINES                                                           | 1992 | <sup>b)</sup> 25            |      | 2,984                    |              | 3                              | 753   | 12,238                   | 197,551      |                 |                   |                          |                       |
| SINGAPORE                                                             | 1992 | ..                          |      |                          |              | <sup>c)</sup> 1                | ..    | ..                       | ..           | 22              | 9,726             | 347,442                  | 2,748,873             |
| THAILAND <sup>(4)</sup>                                               | 1992 | 3                           | 700  |                          |              | 8                              | 1,323 |                          |              | 1,097           | 97,856            |                          |                       |

Note : a) Based on 4 government hospitals

b) Residential Centers 13 and Drop-in Centers 12, from *Dangerous Drugs Board Annual Report*

c) National Skin Center is a dermatology hospital only and provides only ambulatory care. STD cases requiring inpatient treatment are admitted into an annexe of one of the acute hospitals.

#### 8 – 4 Hospital Utilization by Category of Hospital

|                                                                       | Year | All Hospitals |                    |                           |                                  |                        | General Hospitals |                           |                       |         |                        |                               |
|-----------------------------------------------------------------------|------|---------------|--------------------|---------------------------|----------------------------------|------------------------|-------------------|---------------------------|-----------------------|---------|------------------------|-------------------------------|
|                                                                       |      | Type          | Population per Bed | Bed per 10,000 Population | Admissions per 10,000 Population | Bed Occupancy Rate (%) | Type              | Bed per 10,000 Population | Admissions            |         | Bed Occupancy Rate (%) | Average Length of Stay (Days) |
|                                                                       |      |               |                    |                           |                                  |                        |                   |                           | per 10,000 Population | per Bed |                        |                               |
| BRUNEI                                                                | 1992 | A             | 336                | 298                       | 1,145                            | 58                     | A                 | 298                       | 1,145                 | 39      | 58                     | 5.5                           |
| INDONESIA <sup>(1)</sup>                                              | 1992 |               | 1,942              | 5.1                       | 17,213                           | 53                     |                   | 2.9                       | 96.8                  | 33.9    | 57.8                   | 6.1                           |
| JAPAN                                                                 | 1992 | T             | 73.2               | 136.7                     | 864.2                            | 82.8                   | T                 | 102.4                     | 850.2                 | 7.4     | 80.3                   | 39.5                          |
| MALAYSIA <sup>(2)</sup><br>Peninsular<br>Malaysia<br>Sabah<br>Sarawak | 1992 | A             | 543.5              | 18.4                      | 741.1                            | 62.0                   | A                 | 7.5                       | 379.2                 | 61.9    | 73.9                   | 5.3                           |
|                                                                       |      |               | 531.7              | 18.8                      | 731.9                            | 61.5                   |                   | 8.1                       | 398.6                 | 61.5    | 68.6                   | 5.2                           |
|                                                                       |      |               | 572.2              | 17.5                      | 804.7                            | 57.6                   |                   | 6.3                       | 395.9                 | 57.6    | 81.0                   | 4.8                           |
|                                                                       |      |               | 625.3              | 16.0                      | 753.7                            | 75.0                   |                   | 4.2                       | 201.9                 | 74.9    | 72.2                   | 5.7                           |
| PHILIPPINES <sup>(3)</sup>                                            | 1991 | T             | 810                | 4.1                       | 208.2                            | 78.9                   | T                 | 4.1                       | 208.2                 | 50.3    | 76.2                   | 4.6                           |
| SINGAPORE <sup>a)</sup>                                               | 1992 | T             | 290                | 34.5                      | 1,087.4                          | 80.6                   | T                 | 20.1                      | 925.1                 | 52.3    | 76.6                   | 5.2                           |
| THAILAND <sup>(4)</sup>                                               | 1992 | T             | 585                | 17.1                      | 824.1                            |                        | T                 | 14.5                      | 798.7                 | 55.2    |                        |                               |

Source : Ministry of Health in each country

- (1) Directorate of Medical Care, Ministry of Health
- (2) Information and Documentation System Unit
- (3) Hospital Operation & Management Services
- (4) Health Statistics Division

Note : Type of hospitals

T = Total

A = Government hospital establishments

a) Refer to Singapore residents population only

# 8 – 4 Hospital Utilization by Category of Hospital (Contd.)

|                            | Year | Disitrcit Hospitals |                                 |                          |         |                              |                                     | Tuberculosis Hospitals |                                 |                          |         |                              |                                     |
|----------------------------|------|---------------------|---------------------------------|--------------------------|---------|------------------------------|-------------------------------------|------------------------|---------------------------------|--------------------------|---------|------------------------------|-------------------------------------|
|                            |      | Type                | Bed per<br>10,000<br>Population | Admissions               |         | Bed<br>Occupancy<br>Rate (%) | Average<br>Length of<br>Stay (Days) | Type                   | Bed per<br>10,000<br>Population | Admissions               |         | Bed<br>Occupancy<br>Rate (%) | Average<br>Length of<br>Stay (Days) |
|                            |      |                     |                                 | per 10,000<br>Population | per Bed |                              |                                     |                        |                                 | per 10,000<br>Population | per Bed |                              |                                     |
| BRUNEI                     | 1992 | ..                  |                                 |                          |         |                              |                                     | ..                     |                                 |                          |         |                              |                                     |
| INDONESIA <sup>(1)</sup>   | 1992 |                     | 2.3                             | 75.3                     | 32.9    | 48.8                         | 5.3                                 |                        | 0.0                             | 0.5                      | 12.0    | 59.1                         | 20.0                                |
| JAPAN                      | 1992 | ..                  |                                 |                          |         |                              |                                     | T                      | 3.4                             | 0.1                      | 0.0     | 71.4                         | 192.7                               |
| MALAYSIA <sup>(2)</sup>    | 1992 | A                   | 6.9                             | 354.7                    | 50.9    | 52.9                         | 4.0                                 | A                      | 0.1                             | 1.4                      | 9.5     | 22.7                         | 8.7                                 |
| Peninsular<br>Malaysia     |      |                     | 6.5                             | 324.7                    | 50.2    | 51.5                         | 3.8                                 |                        | 0.1                             | 1.4                      | 9.5     | 22.7                         | 8.7                                 |
| Sabah                      |      |                     | 7.2                             | 405.3                    | 56.2    | 53.4                         | 3.6                                 |                        | —                               | —                        | —       | —                            | —                                   |
| Sarawak                    |      |                     | 10.8                            | 548.5                    | 50.6    | 56.1                         | 4.9                                 |                        | —                               | —                        | —       | —                            | —                                   |
|                            |      |                     |                                 |                          |         |                              |                                     |                        |                                 |                          |         |                              |                                     |
| PHILIPPINES <sup>(3)</sup> | 1991 |                     | 1.0                             | 52.3                     | 50.3    | 70.2                         | 4.0                                 | T                      | 0.1                             | 0.9                      | 11.8    | 93.0                         |                                     |
| SINGAPORE                  | 1992 | ..                  |                                 |                          |         |                              |                                     | ..                     |                                 |                          |         |                              |                                     |
| THAILAND <sup>(4)</sup>    | 1992 | A                   | 2.8                             |                          |         |                              |                                     | T                      | 0.1                             |                          |         |                              |                                     |

| Mental Hospitals |                           |                       |         |                        |                               | Maternity Hospitals |                           |                       |            |                        |                               |
|------------------|---------------------------|-----------------------|---------|------------------------|-------------------------------|---------------------|---------------------------|-----------------------|------------|------------------------|-------------------------------|
| Type             | Bed per 10,000 Population | Admissions            |         | Bed Occupancy Rate (%) | Average Length of Stay (Days) | Type                | Bed per 10,000 Population | Admissions            |            | Bed Occupancy Rate (%) | Average Length of Stay (Days) |
|                  |                           | per 10,000 Population | per Bed |                        |                               |                     |                           | per 10,000 Population | per Bed    |                        |                               |
| ..               |                           |                       |         |                        |                               | ..                  |                           |                       |            |                        |                               |
|                  | 0.4                       | 1.7                   | 3.9     | 81.2                   | 70                            |                     | 0.1                       | 4.5                   | 32.4       | 36.5                   | 4.0                           |
| T                | 29.3                      | 14.0                  | 0.5     | 97.1                   | 543.3                         | ..                  |                           |                       |            |                        |                               |
| A                | 2.0                       | 4.5                   | 1.4     |                        |                               | ..                  |                           |                       |            |                        |                               |
|                  | 3.5                       | 3.5                   | 1.3     |                        |                               |                     |                           |                       |            |                        |                               |
|                  | 1.6                       | 3.5                   | 2.2     |                        |                               |                     |                           |                       |            |                        |                               |
|                  | 1.5                       | 3.5                   | 1.8     |                        |                               |                     |                           |                       |            |                        |                               |
| Special          | 0.5                       | 0.1                   | 0.1     | 60.9                   | 73                            | Special             | 0.1                       | a)<br>3.5             | a)<br>50.3 | a)<br>63.2             | a)<br>3.0                     |
| T                | b)<br>9.8                 | b)<br>18.8            | 2.2     | 89.6                   | 141.1                         | T                   | b)<br>1.8                 | b)<br>128.9           | 80.1       | 81.5                   | 3.7                           |
| T                | 1.4                       |                       |         |                        |                               | T                   | 0.2                       |                       |            |                        |                               |

Note : a) 1st quarter only  
b) Refer to Singapore residents population only



## **9. Human Resources for Health**

## 9 – A Definition of Medical Personnel (WHO)

|                                                                                                             | Definition                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Physicians<br>High (university) level                                                                    | All graduates of a medical school or faculty actually working in your country in any medical field (practice, teaching, administration, research, laboratory, etc).                                                                                                            |
| 2. Medical Assistants<br>Middle level                                                                       | Personnel performing duties ranging from simple curative procedures for common diseases to wider medical care that may include a variety of diagnostic, curative and preventive practices. These personnel have no medical education of university level or equivalent.        |
| 3. Multipurpose Health Auxiliaries<br>Basic level                                                           | Personnel who may have no more than elementary general education and a few months of inservice training and who provide basic health services at the village level.                                                                                                            |
| 4. Dentists / Dental Surgeons<br>(a) High (university) level<br>(b) Middle (non-university) level           | (a) All graduates of a dental school (or faculty of odontology or stomatology) actually working in your country in any dental field.<br>(b) Personnel qualified from a dental school of non-university level and licensed to practice dentistry in your country.               |
| 5. Dental Operating Auxiliaries                                                                             | Personnel performing a limited range of diagnostic, preventive, and curative services in dentistry. These personnel usually do not have complete dental education of university level or equivalent.                                                                           |
| 6. Dental Non-operating Auxiliaries<br>(a) Dental laboratory technicians<br>(b) Dental chairside assistants | Dental non-operating auxiliaries who assist dentists and dental operating auxiliaries in their clinical work but do not carry out any independent intra-oral procedures. These dental personnel usually have technical training either in formal courses or by apprenticeship. |

|                                                                                       | Definition                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7. Pharmacists / Chemists, High (university) level                                    | All graduates of a faculty or school of pharmacy actually working in your country in pharmacies, hospitals, laboratories, industry, etc.                                                                                                                                             |
| 8. Pharmaceutical Assistants<br>Middle level                                          | Personnel assisting in pharmacies, hospitals, or dispensaries to make and dispense medicaments, under the supervision of a pharmacist. These personnel do not have pharmaceutical education of university level or equivalent.                                                       |
| 9. Veterinarians / Veterinary Surgeons<br>High (university) level                     | All graduates of a faculty or school of veterinary medicine actually working in your country in any field of veterinary activity, including teaching and public health.                                                                                                              |
| 10. Animal Health Assistants<br>Middle level                                          | Personnel carrying out limited diagnostic, preventive, and curative veterinary services. These personnel have no veterinary education of university level.                                                                                                                           |
| 11. Professional Midwives, High level<br>(a) Non-nurse midwives<br>(b) Nurse-midwives | All graduates of a midwifery school actually working in your country in any field of midwifery (practice in institutions and community health services, teaching, administration, private practice, etc.)                                                                            |
| 12. Assistant Midwives / Auxiliary Midwives<br>Middle level                           | Personnel carrying out midwifery duties in normal obstetrics, in institutions and other health services, in principle under the supervision of a professional midwife. These personnel do not have the full education and training of a professional midwife.                        |
| 13. Auxiliary Nurse-midwives<br>Middle level                                          | Personnel performing certain nursing duties and midwifery duties in normal obstetrics, in principle under the supervision of a professional nurse or midwife. These personnel have simpler education and training in nursing and midwifery than that the professional nurse-midwife. |

|                                                              | Definition                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14. Professional Nurse<br>High level                         | All graduates of a nursing school working in your country in any nursing field (general nursing, specialized clinical nursing services in mental health, pediatrics, cardiovascular diseases, etc.—public health or occupational health, teaching, administration, research, etc.). These personnel are qualified and authorized to provide the most responsible and competent professional nursing service. |
| 15. Assistant Nurses / Auxiliary Nurses<br>Middle level      | Personnel performing general patient care of a less complex nature in hospitals and other health services, in principle under the supervision of a professional nurse. These personnel do not have the full education and training of a professional nurse.                                                                                                                                                  |
| 16. Nursing and Midwifery Aids<br>Basic level                | Personnel performing specified non-technical tasks in institutions or community health services under nursing supervision. These personnel usually have on-the-job or short training.                                                                                                                                                                                                                        |
| 17. Physiotherapists / Physical therapists                   | Professional personnel treating patients by exercise, physical means, and massage, usually as prescribed by a physician.                                                                                                                                                                                                                                                                                     |
| 18. Medical Laboratory Technicians<br>High level             | Professionals who have graduated from a school for laboratory technicians and work under the responsibility of a scientific or medical specialist. They also participate in the supervision, teaching and training of subordinate technical personnel.                                                                                                                                                       |
| 19. Assistant Medical Laboratory Technicians<br>Middle level | Auxiliary technical laboratory personnel working under the supervision of a professional laboratory technologist or technician. These auxiliary personnel do not have the full training and theoretical knowledge of the professional.                                                                                                                                                                       |

|                                                                            | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20. Medical Physicists<br>High (university) level                          | All graduates of a university or faculty of natural science with qualification in physics and mathematics and special education and training in the field of medical physics.                                                                                                                                                                                                                                                                        |
| 21. Medical Radiological Technicians<br>High level technicians             | Professionals who have graduated from a school for radiological technicians and work under the general responsibility of a specialist or physician in the field of radiology. If possible, indicate the distribution of medical activity:<br>(a) MRT (General)<br>(b) MRT (Diagnosis)<br>(c) MRT (Therapy)                                                                                                                                           |
| 22. Assistant Medical Radiological Technicians<br>Middle level technicians | Auxiliary medical radiological personnel working under the direct supervision of a medical radiological technician or under a specialist or physician. Professionally qualified engineers specialized in the prevention, control, and management of environmental factors that influence man's health adversely, e.g., in the design and operation of facilities for control and the planning and administration of environmental health programmes. |
| 23. Sanitray engineers<br>High (university) level                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 24. Sanitarians<br>High level technicians                                  | Professional personnel other than physicians inspecting the environment, promoting measures to restore or improve sanitary conditions (food inspection, inspection of public premises, etc.) and supervising the implementation of these measures.                                                                                                                                                                                                   |
| 25. Auxiliary Sanitarians<br>Middle level technicians                      | Personnel who perform to a limited extent the functions of a professional sanitarian but do not have the full training and theoretical knowledge of the professional.                                                                                                                                                                                                                                                                                |

|                                                                                                                                                                                                                                                                                                              | Definition                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26. Other Scientific or Professional Personnel<br>examples:<br>Biochemists<br>Biologists<br>Entomologists<br>Psychologists<br>Nutritionists<br>Dietitians<br>Occupational therapists<br>Speech therapists<br>Other special therapists<br>Health educators<br>Health statisticians, Medical record librarians | Scientific (university) or professional personnel working in the health field, but not classifiable under previous items (e.g., excluding physicians). |
| 27. Other Technical Personnel<br>examples:<br>Cardiology technicians<br>Encephalographers<br>Opticians<br>Orthopedic technicians<br>Hearing aid technicians<br>Health statistical technicians<br>Medical records technicians                                                                                 | Technical personnel in the health field not classifiable under previous items.                                                                         |

|                                                                                                                                                                                                            | Definition                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28. Other Health Auxiliaries and Aides<br>examples:<br>Microscopist<br>Laboratory aides<br>Darkroom assistants                                                                                             | Health auxiliaries not classifiable under previous items, who generally have not more than primary general education and an elementary technical training by apprenticeship or in-service training. |
| 29. Practitioners of Traditional Medicine / Midwifery<br><br>examples:<br>Herb doctors<br>Ayurvedic doctors<br>Lay medical practitioners<br>Medicine men<br>Acupuncturists<br>Traditional birth attendants |                                                                                                                                                                                                     |

### 9 – B Comparative Table on Medical Personnel

|                                               | Brunei<br>(1993) | Indonesia<br>(1992) | Japan<br>(1992) | Malaysia (1992)        |       |         | Philippines<br>(1992) | Singapore<br>(1992) | Thailand<br>(1992) |
|-----------------------------------------------|------------------|---------------------|-----------------|------------------------|-------|---------|-----------------------|---------------------|--------------------|
|                                               |                  |                     |                 | Peninsular<br>Malaysia | Sabah | Sarawak |                       |                     |                    |
| 1 Physicians                                  | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 2 Medical assistants                          | V                |                     |                 | V                      | V     | V       |                       |                     | V                  |
| 3 Multipurpose health auxiliaries             |                  |                     |                 |                        |       |         | V                     |                     |                    |
| 4 Dentists / Dental auxiliaries               | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 5 Dental operating auxiliaries                | V                | V                   | V               |                        |       |         | V                     | V                   |                    |
| 6 Dental non-operating auxiliaries            |                  | V                   |                 |                        |       |         |                       | V                   |                    |
| 7 Pharmacists / Chemists                      | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 8 Pharmaceutical assistants                   | V                | V                   |                 | V                      | V     | V       |                       | V                   | V                  |
| 9 Veterinarians / Veterinary surgeons         | V                |                     | V               |                        |       |         | V                     | V                   | V                  |
| 10 Animal health assistants                   |                  |                     |                 |                        |       |         |                       | V                   | V                  |
| 11 Professional midwives                      | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 12 Assistant midwives / Auxiliary midwives    | V                |                     |                 |                        |       |         |                       |                     |                    |
| 13 Auxiliary nurse-midwives                   | V                |                     |                 |                        |       |         |                       |                     | V                  |
| 14 Professional nurses                        | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 15 Assistant nurses / Auxiliary nurses        | V                |                     | V               | V                      | V     | V       |                       | V                   | V                  |
| 16 Nursing and midwifery aids                 |                  | V                   |                 |                        |       |         | V                     |                     |                    |
| 17 Physiotherapists / Physical therapists     | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 18 Medical laboratory technicians             | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 19 Assistant medical laboratory technicians   | V                | V                   | V               | V                      | V     | V       |                       | V                   | V                  |
| 20 Medical physicists                         | V                |                     |                 |                        |       |         | V                     |                     |                    |
| 21 Medical radiological technicians           | V                | V                   | V               |                        |       |         | V                     | V                   | V                  |
| 22 Assistant medical radiological technicians | V                |                     | V               |                        |       |         |                       | V                   |                    |
| 23 Sanitary engineers                         |                  | V                   |                 | V                      | V     | V       | V                     | V                   | V                  |
| 24 Sanitarians                                | V                | V                   |                 |                        |       |         | V                     | V                   | V                  |
| 25 Auxiliary sanitarians                      | V                |                     |                 |                        |       |         |                       | V                   |                    |

9 – B Comparative Table on Medical Personnel (Contd.)

|                                               | Malaysia (1992)  |                     |                 |                        |       |         |                       |                     |                    |
|-----------------------------------------------|------------------|---------------------|-----------------|------------------------|-------|---------|-----------------------|---------------------|--------------------|
|                                               | Brunei<br>(1993) | Indonesia<br>(1992) | Japan<br>(1992) | Peninsular<br>Malaysia | Sabah | Sarawak | Philippines<br>(1992) | Singapore<br>(1992) | Thailand<br>(1992) |
| 26 Other scientific or professional personnel | V                |                     |                 |                        |       |         |                       | V                   | V                  |
| 27 Other technical personnel                  |                  |                     |                 |                        |       |         |                       | V                   |                    |
| 28 Other health auxiliaries and aides         |                  |                     |                 |                        |       |         |                       | V                   | V                  |
| 29 Practitioners of traditional midwifery     |                  |                     |                 |                        |       |         |                       |                     | V                  |
| 30 Dental nurses                              |                  | V                   |                 | V                      | V     | V       |                       | V                   |                    |
| 31 Nurses including nurse-midwives            |                  | V                   |                 |                        |       |         |                       | V                   |                    |
| 32 Orthopedic technicians                     |                  | V                   |                 |                        |       |         |                       |                     |                    |
| 33 Malaria field officers                     |                  |                     |                 |                        |       |         | V                     |                     | V                  |
| 34 Health statistics technicians              | V                |                     |                 | V                      |       |         |                       |                     | V                  |
| 35 Medical statisticians                      | V                |                     |                 | V                      |       |         |                       |                     | V                  |
| 36 Dental hygienists                          |                  | V                   | V               |                        |       |         | V                     |                     | V                  |
| 37 Trained or rural midwives                  |                  |                     |                 |                        |       |         | V                     |                     |                    |
| 38 Traditional birth attendants               |                  |                     |                 |                        |       |         | V                     |                     |                    |
| 39 Laboratory aids                            |                  |                     |                 |                        |       |         | V                     |                     | V                  |
| 40 Sanitary inspectors                        |                  | V                   |                 |                        |       |         | V                     |                     |                    |
| 41 Medical social workers                     | V                |                     | V               |                        |       |         | V                     | V                   | V                  |
| 42 Dental practitioners                       |                  |                     |                 |                        |       |         |                       | V                   |                    |
| 43 Veterinary assistants                      |                  |                     |                 |                        |       |         |                       | V                   | V                  |
| 44 Nurse-midwives                             |                  | V                   |                 |                        |       |         |                       |                     |                    |
| 45 Dental technicians                         |                  | V                   |                 | V                      | V     | V       |                       | V                   |                    |
| 46 Dispensers                                 |                  | V                   |                 |                        |       |         |                       | V                   |                    |
| 47 Assistant nurse-midwives                   |                  | V                   |                 |                        |       |         |                       |                     |                    |
| 48 Nurses                                     |                  | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |
| 49 Occupational therapists                    | V                | V                   | V               | V                      | V     | V       | V                     | V                   | V                  |

|                                | Brunei<br>(1993) | Indonesia<br>(1992) | Japan<br>(1992) | Malaysia (1992)        |       |         | Philippines<br>(1992) | Singapore<br>(1992) | Thailand<br>(1992) |
|--------------------------------|------------------|---------------------|-----------------|------------------------|-------|---------|-----------------------|---------------------|--------------------|
|                                |                  |                     |                 | Peninsular<br>Malaysia | Sabah | Sarawak |                       |                     |                    |
| 50 Dietitians                  | V                | V                   |                 |                        |       |         | V                     | V                   | V                  |
| 51 Radiographers               | V                | V                   |                 | V                      | V     | V       |                       | V                   |                    |
| 52 X-ray assistant technicians | V                |                     |                 |                        |       |         |                       |                     |                    |
| 53 Health inspectors           | V                | V                   |                 | V                      | V     | V       |                       | V                   |                    |
| 54 Assistant health inspectors |                  | V                   |                 | V                      | V     | V       |                       | V                   |                    |
| 55 Biochemists                 | V                |                     |                 |                        |       |         |                       |                     | V                  |
| 56 Health educators            | V                | V                   |                 |                        |       |         | V                     | V                   | V                  |
| 57 Midwives                    |                  | V                   | V               | V                      | V     | V       | V                     | V                   |                    |
| 58 Microscopists               | V                |                     |                 |                        |       |         |                       |                     | V                  |
| 59 Health assistants           | V                |                     |                 |                        |       |         |                       |                     |                    |
| 60 Entomologists               | V                |                     |                 |                        |       |         | V                     |                     | V                  |
| 61 Dental surgery assistants   |                  |                     |                 | V                      | V     | V       |                       |                     |                    |
| 62 Nutritionists               |                  | V                   | V               | V                      | V     | V       | V                     |                     |                    |
| 63 Darkroom assistants         | V                |                     |                 |                        |       |         |                       |                     |                    |

### 9 – 1 Medical and Allied Health Personnel

|                          | Year | 1. Physicians        | 2. Medical Assistants | 3. Multi-purpose Health Auxiliaries | 4. Dentists / Dental Surgeons | 5. Dental Operating Auxiliaries | 6. Dental Non-operating Auxiliaries | 7. Pharmacists / Chemists |
|--------------------------|------|----------------------|-----------------------|-------------------------------------|-------------------------------|---------------------------------|-------------------------------------|---------------------------|
| BRUNEI                   | 1993 | 226                  | 118                   | ..                                  | 31                            | 28                              | ..                                  | 13                        |
| INDONESIA <sup>(1)</sup> | 1992 | 27,652               | ..                    | ..                                  | 6,753                         | 4,392                           |                                     | 5,841                     |
| JAPAN                    | 1992 | 219,704              | ..                    | ..                                  | 77,416                        | 32,629                          | ..                                  | 162,021                   |
| MALAYSIA <sup>(3)</sup>  |      | 7,719                | 3,836                 | ..                                  | 1,562                         | ..                              | ..                                  | 1,351                     |
| Peninsular Malaysia      | 1992 | 7,007                | 2,702                 | ..                                  | 1,424                         | ..                              | ..                                  | 1,221                     |
| Sabah                    |      | 331                  | 553                   | ..                                  | 59                            | ..                              | ..                                  | 42                        |
| Sarawak                  |      | 381                  | 581                   | ..                                  | 79                            | ..                              | ..                                  | 88                        |
| PHILIPPINES              | 1992 | 77,127 <sup>c)</sup> | ..                    | 174,195 <sup>d)</sup>               | 32,093 <sup>c)</sup>          |                                 | ..                                  | 32,126 <sup>c) e)</sup>   |
| SINGAPORE                | 1992 | 3,962                | ..                    | ..                                  | 806                           | 240 <sup>b)</sup>               | 31 <sup>b)</sup>                    | 677 <sup>e)</sup>         |
| THAILAND <sup>(4)</sup>  | 1992 | 13,398               | 302                   | ..                                  | 2,669                         | ..                              | ..                                  | 4,609                     |

Source : Ministry of Health in each country

- (1) Personnel Bureau
- (2) Livestock Industry Bureau, Ministry of Agriculture, Forestry and Fisheries
- (3) *Establishment Book*, Information and Documentation System Unit
- (4) *Health Resources Report*, Health Information Division

- Note :
- a) For 1990
  - b) Government only
  - c) Cumulative total (Professional Regulation Commission)
  - d) Barangay health workers active only as of June, 1994
  - e) Pharmacists only
  - f) Department of Health only, 1990
  - g) Entry used for calculation of population/nursing and midwifery personnel ratios



| 8. Pharmaceutical Assistants       | 9. Veterinarians / Veterinary Surgeons | 10. Animal Health Assistants | 11. Professional Midwives            | 12. Assistant Midwives / Auxiliary Midwives | 13. Auxiliary Nurse-midwives | 14. Professional Nurses                | 15. Assistant Nurses / Auxiliary Nurses | 16. Nursing & Midwifery Aids |
|------------------------------------|----------------------------------------|------------------------------|--------------------------------------|---------------------------------------------|------------------------------|----------------------------------------|-----------------------------------------|------------------------------|
| 15                                 | 5                                      | ..                           | 63                                   | 132                                         | 269                          | 743                                    | 243                                     |                              |
| 5,690                              | ..                                     | ..                           | 34,878                               | ..                                          | ..                           | 65,805                                 | ..                                      | a)<br>38,770                 |
| ..                                 | (2)<br>28,252                          | ..                           | 22,690                               | ..                                          | ..                           | 441,309                                | 354,501                                 | ..                           |
| b)<br>1,696<br>1,374<br>156<br>166 | ..                                     | ..                           | b)<br>5,476<br>3,853<br>521<br>1,102 | ..                                          | ..                           | b)<br>12,789<br>10,874<br>1,039<br>876 | b)<br>9,482<br>7,860<br>1,310<br>312    | ..                           |
| ..                                 | c)<br>3,769                            | ..                           | c)<br>85,172                         | ..                                          | ..                           | c)<br>199,263                          | ..                                      | f)<br>5,178                  |
| 174                                | b)<br>23                               | b)<br>112                    | 530                                  | ..                                          | ..                           | g)<br>7,975                            | g)<br>2,658                             | ..                           |
| 2,234                              | 716                                    | 1,764                        | 19,526                               | ..                                          | 14,365                       | 44,126                                 | 29,193                                  | ..                           |

# 9 – 1 Medical and Allied Health Personnel (Contd.)

|                          | Year | 17. Physio-therapists / Physical Therapists | 18. Medical Laboratory Technicians | 19. Assistant Medical Laboratory Technicians | 20. Medical Physicists | 21. Medical Radiological Technicians | 22. Assistant Medical Radiological Technicians | 23. Sanitary Engineers |
|--------------------------|------|---------------------------------------------|------------------------------------|----------------------------------------------|------------------------|--------------------------------------|------------------------------------------------|------------------------|
| BRUNEI                   | 1993 | 9                                           | 59                                 | 36                                           | 76                     | 4                                    | 14                                             | ..                     |
| INDONESIA <sup>(1)</sup> | 1992 | 692                                         | <sup>a)</sup> 284                  | 4,438                                        | ..                     | 344                                  | ..                                             | 2,268                  |
| JAPAN                    | 1992 | 12,039                                      | 44,032                             | <sup>b)</sup> 1,193                          | ..                     | 36,172                               | <sup>b)</sup> 2,865                            | ..                     |
| MALAYSIA <sup>(2)</sup>  | 1992 | <sup>c)</sup> 182                           | <sup>c)</sup> 1,454                | <sup>c)</sup> 1,277                          | ..                     | ..                                   | ..                                             | <sup>c)</sup> 81       |
| Peninsular Malaysia      |      | 157                                         | 1,142                              | 1,083                                        |                        |                                      |                                                | 73                     |
| Sabah                    |      | 11                                          | 150                                | 53                                           |                        |                                      |                                                | 4                      |
| Sarawak                  |      | 14                                          | 162                                | 141                                          |                        |                                      |                                                | 4                      |
| PHILIPPINES              | 1992 | <sup>d)</sup> 2,621                         | 2,771                              | ..                                           | <sup>e)</sup> 25       | <sup>f)</sup> 927                    | ..                                             | <sup>g)</sup> 156      |
| SINGAPORE                | 1992 | <sup>c)</sup> 5                             | <sup>c)</sup> 108                  | <sup>c)</sup> 31                             | ..                     | <sup>c)</sup> 20                     | <sup>c)</sup> 9                                | <sup>c)</sup> 198      |
| THAILAND <sup>(3)</sup>  | 1992 | 614                                         | 1,455                              | 3,168                                        | ..                     | 276                                  | ..                                             | 47                     |

Source : Ministry of Health in each country  
 (1) Center for Manpower Education  
 (2) *Establishment Book*, Information and Documentation System Unit  
 (3) *Health Resources Report*, Health Statistics Division

Note : a) For 1990  
 b) Hospitals and clinics only  
 c) Government only  
 d) Cumulative (Professional Regulation Commission)  
 e) Health physicist only  
 f) Licensed as of 1990 of Department of Health  
 g) Department of Health only

| 24. Sanitarians | 25. Auxiliary Sanitarians | 26. Other Scientific or Professional Personnel | 27. Other Technical Personnel | 28. Other Health Auxiliaries and Aids | 29. Practitioners of Traditional Medicine / Midwifery | 30. Dental Nurses                | 31. Nurses Including Nurse midwives | 32. Orthopedic Technicians |
|-----------------|---------------------------|------------------------------------------------|-------------------------------|---------------------------------------|-------------------------------------------------------|----------------------------------|-------------------------------------|----------------------------|
| 23              | 18                        |                                                | ..                            | ..                                    | ..                                                    | ..                               | ..                                  | ..                         |
| 2,770           | ..                        | ..                                             | ..                            | ..                                    | ..                                                    | 4,330                            | 72,787                              | a)<br>34                   |
| ..              | ..                        | ..                                             | ..                            | ..                                    | ..                                                    | ..                               | ..                                  | ..                         |
| ..              | ..                        | ..                                             | ..                            | ..                                    | ..                                                    | c)<br>1,087<br>808<br>105<br>174 | ..                                  | ..                         |
| g)<br>2,362     | ..                        | ..                                             | ..                            | ..                                    | ..                                                    | ..                               | ..                                  | ..                         |
| c)<br>254       | c)<br>345                 | c)<br>41                                       | c)<br>14                      | c)<br>19                              | ..                                                    | c)<br>308                        | 10,633                              | ..                         |
| 717             | ..                        | 664                                            | ..                            | 14,180                                | 12,183                                                | ..                               | ..                                  | ..                         |

9 – 1 Medical and Allied Health Personnel (Contd.)

|                          | Year | 33. Malaria<br>Field<br>Officers | 34. Health<br>Statistics<br>Technicians | 35. Medical<br>Statisticians | 36. Dental<br>Hygienists | 37. Trained<br>or Rural<br>Midwives | 38. Traditional<br>Birth<br>Attendants | 39. Laboratory<br>Aids |
|--------------------------|------|----------------------------------|-----------------------------------------|------------------------------|--------------------------|-------------------------------------|----------------------------------------|------------------------|
| BRUNEI                   | 1993 | ..                               | 3                                       | 1                            | ..                       | ..                                  | ..                                     | ..                     |
| INDONESIA <sup>(1)</sup> | 1992 | ..                               | ..                                      | ..                           | 4,392                    | ..                                  | ..                                     | ..                     |
| JAPAN                    | 1992 | ..                               | ..                                      | ..                           | 44,219                   | ..                                  | ..                                     | ..                     |
| MALAYSIA <sup>(2)</sup>  |      |                                  | b)<br>9                                 | b)<br>3                      |                          |                                     |                                        | ..                     |
| Peninsular Malaysia      | 1992 | ..                               | 9                                       | 3                            | ..                       | ..                                  | ..                                     | ..                     |
| Sabah                    |      |                                  | ..                                      | ..                           |                          |                                     |                                        | ..                     |
| Sarawak                  |      |                                  | ..                                      | ..                           |                          |                                     |                                        | ..                     |
| PHILIPPINES              | 1992 | c)<br>707                        | ..                                      | ..                           | d)<br>6                  | d)<br>85,172                        | e)<br>35,543                           | c)<br>749              |
| SINGAPORE                | 1992 | ..                               | ..                                      | ..                           | ..                       | ..                                  | ..                                     | ..                     |
| THAILAND <sup>(3)</sup>  | 1992 | 16,953                           | 290                                     | 902                          | 1,239                    | ..                                  | ..                                     | 826                    |

Source : Ministry of Health in each country  
 (1) Center for Manpower Education  
 (2) *Establishment Book*, Information and Documentation System Unit  
 (3) *Health Resources Report*, Health Statistics Division

Note : a) For 1990  
 b) Government only  
 c) Department of Health only  
 d) Cumulative total (Professional Regulation Commission)  
 e) As of June 1994  
 f) Professional nurses

| 40. Sanitary Inspectors | 41. Medical Social Workers | 42. Dental Practitioners | 43. Veterinary Assistants | 44. Nurse-midwives | 45. Dental Technicians | 46. Dispensers | 47. Assistant Nurse-midwives | 48. Nurses    |
|-------------------------|----------------------------|--------------------------|---------------------------|--------------------|------------------------|----------------|------------------------------|---------------|
| ..                      | 3                          | ..                       | ..                        | ..                 | ..                     | ..             | ..                           | ..            |
| 4,540                   | ..                         | ..                       | ..                        | 51,369             | 24                     | 13,974         | 16,402                       | 81,364        |
| ..                      | a)<br>4,630                | ..                       | ..                        | ..                 | ..                     | ..             | ..                           | 795,810       |
| ..                      | ..                         | ..                       | ..                        | ..                 | 338                    | ..             | ..                           | b)<br>12,789  |
| ..                      | ..                         | ..                       | ..                        | ..                 | 285                    | ..             | ..                           | 10,874        |
| ..                      | ..                         | ..                       | ..                        | ..                 | 24                     | ..             | ..                           | 1,039         |
| ..                      | ..                         | ..                       | ..                        | ..                 | 29                     | ..             | ..                           | 876           |
| c)<br>2,160             | d)<br>7,978                | ..                       | ..                        | ..                 | ..                     | ..             | ..                           | d)<br>199,263 |
| ..                      | b)<br>21                   | 806                      | b)<br>6                   | ..                 | b)<br>31               | b)<br>136      | ..                           | 10,633        |
| ..                      | 749                        | ..                       | 1,764                     | ..                 | ..                     | ..             | ..                           | f)<br>44,126  |

9 – 1 Medical and Allied Health Personnel (Contd.)

|                          | Year | 49. Occupational Therapists | 50. Dietitians         | 51. Radiographers | 52. X-ray Assistant Technicians | 53. Health Inspectors | 54. Assistant Health Inspectors | 55. Bio-chemists |
|--------------------------|------|-----------------------------|------------------------|-------------------|---------------------------------|-----------------------|---------------------------------|------------------|
| BRUNEI                   | 1993 | 8                           | 8                      | 6                 | 18                              | 23                    | ..                              | 14               |
| INDONESIA <sup>(1)</sup> | 1991 | 667                         | 6,754                  | 637               | ..                              | 3,107                 | 6,386                           | ..               |
| JAPAN                    | 1992 | 5,826                       | ..                     | ..                | ..                              | ..                    | ..                              | ..               |
| MALAYSIA <sup>(2)</sup>  |      | b)<br>80                    | ..                     | b)<br>395         | ..                              | b)<br>1,099           | b)<br>2,077                     | ..               |
| Peninsular Malaysia      | 1992 | 71                          | ..                     | 326               | ..                              | 875                   | 1,554                           | ..               |
| Sabah                    |      | 5                           | ..                     | 23                | ..                              | 115                   | 205                             | ..               |
| Sarawak                  |      | 4                           | ..                     | 46                | ..                              | 109                   | 318                             | ..               |
| PHILIPPINES              | 1992 | <sup>(3) c)</sup><br>239    | <sup>o)</sup><br>8,151 | ..                | ..                              | ..                    | ..                              | ..               |
| SINGAPORE                | 1992 | b)<br>4                     | b)<br>7                | b)<br>20          | ..                              | b)<br>254             | b)<br>345                       | ..               |
| THAILAND <sup>(4)</sup>  | 1992 | 226                         | 400                    | ..                | ..                              | ..                    | ..                              | 121              |

Source : Ministry of Health in each country

(1) Center for Manpower Education

(2) *Establishment Book*, Information and Documentation System Unit

(3) Professional Regulation Commission

(4) *Health Resources Report*, Health Statistics Division

Note : a) For 1990

b) Government only

c) Cumulative total (Professional Regulation Commission)

d) Department of Health only

| 56. Health Educators | 57. Midwives | 58. Microscopists | 59. Health Assistants | 60. Entomologists | 61. Dental Surgery Assistants | 62. Nutritionists | 63. Darkroom Assistants |
|----------------------|--------------|-------------------|-----------------------|-------------------|-------------------------------|-------------------|-------------------------|
| 4                    | ..           | 6                 | 18                    | 1                 | ..                            | ..                | 9                       |
| a)<br>78             | 23,448       | ..                | ..                    | ..                | ..                            | 2,198             | ..                      |
| ..                   | 22,690       | ..                | ..                    | ..                | ..                            | 21,643            | ..                      |
| ..                   | b)<br>5,476  | ..                | ..                    | ..                | b)<br>900                     | 15                | ..                      |
| ..                   | 3,853        | ..                | ..                    | ..                | 789                           | 13                | ..                      |
| ..                   | 521          | ..                | ..                    | ..                | 54                            | 1                 | ..                      |
| ..                   | 1,102        | ..                | ..                    | ..                | 57                            | 1                 | ..                      |
| c) d)<br>154         | c)<br>85,172 | ..                | ..                    | c) d)<br>24       | ..                            | c)<br>7,741       | ..                      |
| b)<br>4              | 530          | ..                | ..                    | ..                | ..                            | ..                | ..                      |
| 460                  | ..           | 173               | ..                    | 17                | ..                            | 495               | ..                      |

## 9 – 2 Population / Health Personnel Ratios

|                            | Year | Physicians<br>per 10,000<br>Population | Population<br>per<br>Physician | Dentists<br>per 10,000<br>Population | Population<br>per<br>Dentist | Pharmacists<br>per 10,000<br>Population | Population<br>per<br>Pharmacist | Medical<br>Assistants<br>per 10,000<br>Population | Population<br>per<br>Medical<br>Assistant | Nursing<br>Personnel<br>per 10,000<br>Population | Population<br>per<br>Nursing<br>Personnel | Nursing &<br>Midwifery<br>Personnel<br>per 10,000<br>Population | Population<br>per Nursing<br>& Midwifery<br>Personnel |
|----------------------------|------|----------------------------------------|--------------------------------|--------------------------------------|------------------------------|-----------------------------------------|---------------------------------|---------------------------------------------------|-------------------------------------------|--------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------|
| BRUNEI                     | 1993 | 8                                      | 1,223                          | 1                                    | 8,913                        | 1                                       | 21,254                          | 4                                                 | 2,342                                     | 36                                               | 280                                       | 53                                                              | 191                                                   |
| INDONESIA                  | 1992 | 1.5                                    | 6,728                          | 0.4                                  | 27,549                       | 0.3                                     | 33,275                          | ..                                                | ..                                        | 3.5                                              | 2,827                                     | 5.5                                                             | 1,824                                                 |
| JAPAN                      | 1992 | 17.7                                   | 566                            | 6.2                                  | 1,608                        | 13.0                                    | 768                             | ..                                                | ..                                        | 63.9                                             | 156                                       | 65.8                                                            | 152                                                   |
| MALAYSIA                   | 1992 | 4.1                                    | 2,411                          | 0.8                                  | 11,915                       | 0.7                                     | 13,776                          | 2.1                                               | 4,852                                     | 6.9                                              | 1,455                                     | 9.8                                                             | 1,039                                                 |
| Peninsular<br>Malaysia     |      | 4.6                                    | 2,180                          | 0.9                                  | 10,729                       | 0.8                                     | 12,512                          | 1.8                                               | 5,654                                     | 7.1                                              | 1,405                                     | 9.6                                                             | 1,037                                                 |
| Sabah                      |      | 2.1                                    | 4,788                          | 0.4                                  | 26,864                       | 0.3                                     | 37,737                          | 3.5                                               | 2,866                                     | 6.6                                              | 1,525                                     | 9.8                                                             | 1,016                                                 |
| Sarawak                    |      | 2.2                                    | 4,592                          | 0.5                                  | 22,144                       | 0.5                                     | 19,880                          | 3.3                                               | 3,011                                     | 5.0                                              | 1,997                                     | 11.3                                                            | 884                                                   |
| PHILIPPINES <sup>(1)</sup> | 1992 | 11.8                                   | 848                            | 4.9                                  | 2,038                        | 4.9                                     | 2,036                           | ..                                                | ..                                        | 30.5                                             | 328                                       | 43                                                              | 230                                                   |
| SINGAPORE <sup>a)</sup>    | 1992 | 14.1                                   | 711                            | 2.9                                  | 3,497                        | 2.4                                     | 4,163                           | ..                                                | ..                                        | 37.7                                             | 265                                       | 39.6                                                            | 252                                                   |
| THAILAND                   | 1992 | 2.3                                    | 4,282                          | 0.5                                  | 21,497                       | 0.8                                     | 12,448                          | 0.1                                               | 189,983                                   | 12.8 <sup>b)</sup>                               | 783 <sup>b)</sup>                         | ..                                                              | ..                                                    |

Source : Ministry of Health in each country  
(1) Professional Regulation Commission

Note : a) Refer to residents population only  
b) Rate of professional nurses including assistant nurses



### 9 – 3 Number of Physicians

| Year                       | 1970    | 1975    | 1980    | 1985                  | 1986    | 1987                  | 1988                  | 1989   | 1990    | 1991   | 1992      |
|----------------------------|---------|---------|---------|-----------------------|---------|-----------------------|-----------------------|--------|---------|--------|-----------|
| BRUNEI                     |         |         |         |                       |         | 171                   |                       |        |         | 197    | a)<br>226 |
| INDONESIA <sup>(1)</sup>   | 3,578   | 8,279   | 12,931  | 19,875 <sup>(2)</sup> | 20,176  | 22,053 <sup>(2)</sup> | 23,367 <sup>(3)</sup> | 24,823 | 25,752  | 25,754 | 27,652    |
| JAPAN                      | 118,990 | 132,479 | 156,235 | NA                    | 191,346 | NA                    | 201,658               | NA     | 211,797 | NA     | 219,704   |
| MALAYSIA <sup>(4)</sup>    |         | 2,757   | 3,858   | 4,939                 | 5,394   | 5,794                 | 6,274                 | 6,577  | 7,012   | 7,198  | 7,719     |
| Peninsular Malaysia        | 2,370   | 2,511   | 3,518   | 4,541                 | 4,938   | 5,300                 | 5,737                 | 5,981  | 6,327   | 6,544  | 7,007     |
| Sabah                      |         | 104     | 141     | 174                   | 216     | 225                   | 252                   | 277    | 291     | 298    | 331       |
| Sarawak                    | 80      | 142     | 199     | 224                   | 240     | 269                   | 285                   | 319    | 349     | 356    | 381       |
| PHILIPPINES <sup>(5)</sup> | 31,515  | 37,276  | 50,848  | 58,015                | 61,620  | 63,340                | 65,893                | 68,682 | 72,593  | 74,008 | 77,127    |
| SINGAPORE <sup>(6)</sup>   | 1,363   | 1,622   | 1,976   | 2,631                 | 2,781   | 2,939                 | 3,162                 | 3,397  | 3,573   | 3,779  | 3,962     |
| THAILAND <sup>(7)</sup>    | 5,407   | 5,005   | 6,867   | 8,650                 | 9,464   | 9,580                 | 11,260                | 12,713 | 12,520  | 12,803 | 13,398    |

Source : Ministry of Health in each country

(1) *The Health Situation of Indonesia*, Ministry of Health

(2) Personnel Bureau 1987

(3) Personnel Bureau 1989

(4) Medical Council, Ministry of Health

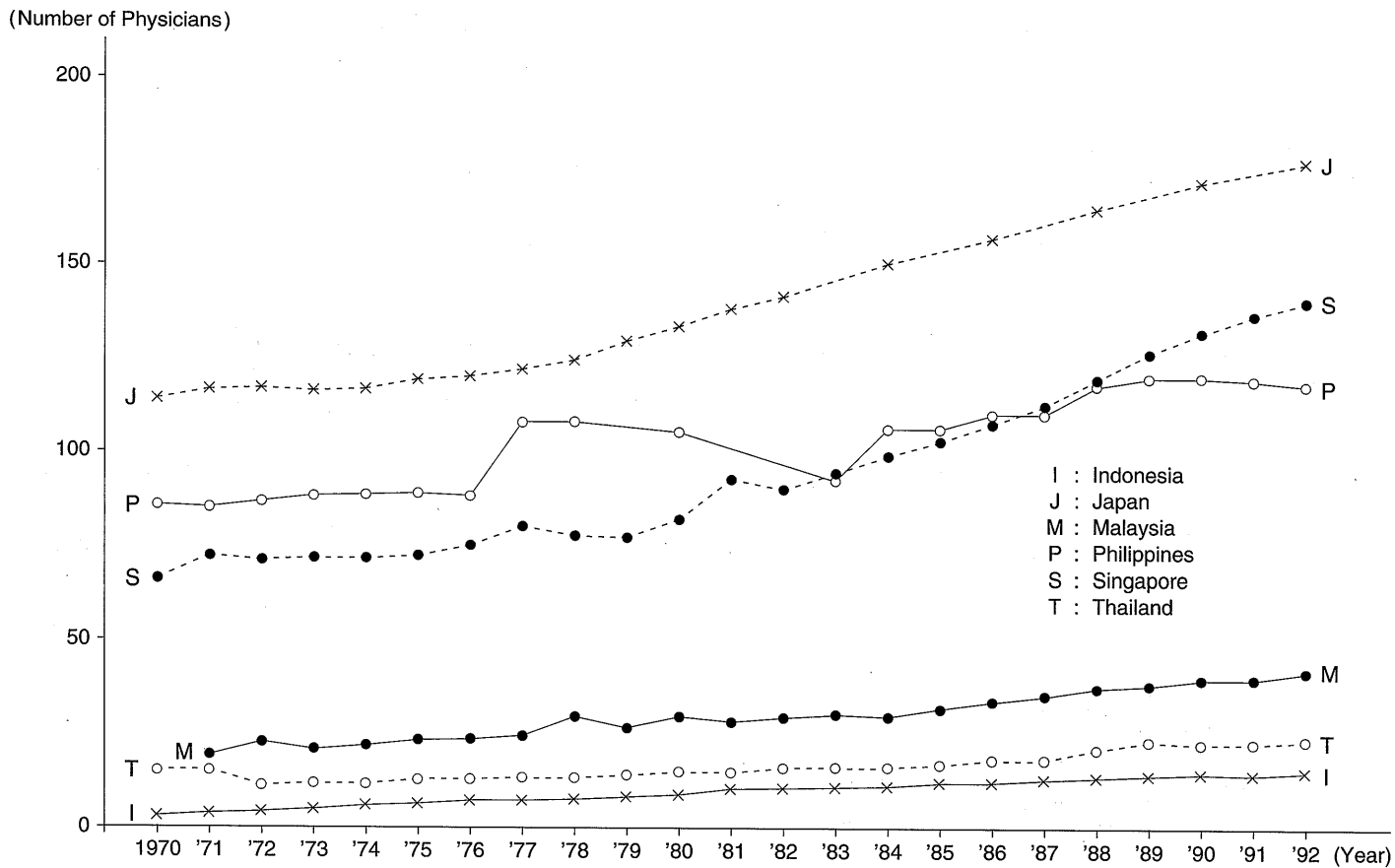
(5) Professional Regulation Commissioner, Registered

(6) *Yearbook of Statistics, Singapore 1993*

(7) Health Statistics Division, Ministry of Public Health

Note : a) For 1993

Fig. 7 Recent Trends in Number of Physicians (Per 100,000)



# 9 – 4 Number of Dentists

| Year                       | 1970   | 1975   | 1980   | 1985                   | 1986                   | 1987                   | 1988   | 1989   | 1990   | 1991   | 1992                |
|----------------------------|--------|--------|--------|------------------------|------------------------|------------------------|--------|--------|--------|--------|---------------------|
| BRUNEI                     |        |        |        |                        |                        | 31                     |        |        |        | 27     | <sup>a)</sup><br>31 |
| INDONESIA <sup>(1)</sup>   | 452    |        | 1,681  | <sup>b)</sup><br>4,237 | <sup>b)</sup><br>4,237 | <sup>b)</sup><br>4,583 | 4,907  | 5,290  | 5,545  | 6,176  | 6,753               |
| JAPAN                      | 37,859 | 43,586 | 53,602 | NA                     | 66,797                 | NA                     | 70,572 | NA     | 74,028 | NA     | 77,416              |
| MALAYSIA <sup>(2) c)</sup> |        | 433    | 691    | 1,041                  | 1,130                  | 1,220                  | 1,288  | 1,401  | 1,471  | 1,501  | 1,562               |
| Peninsular Malaysia        | 15     | 9      | 630    | 949                    | 1,030                  | 1,106                  | 1,183  | 1,289  | 1,343  | 1,359  | 1,424               |
| Sabah                      |        |        | 25     | 36                     | 46                     | 51                     | 47     | 49     | 56     | 63     | 59                  |
| Sarawak                    |        |        | 36     | 56                     | 60                     | 63                     | 58     | 83     | 72     | 79     | 79                  |
| PHILIPPINES <sup>(3)</sup> | 12,174 | 13,096 | 15,158 | 21,148                 | 22,479                 | 23,724                 | 24,814 | 26,937 | 28,204 | 30,354 | 32,093              |
| SINGAPORE <sup>(4)</sup>   | 398    | 419    | 485    | 604                    | 632                    | 654                    | 688    | 740    | 776    | 784    | 806                 |
| THAILAND                   | 683    | 652    | 1,169  | 1,451                  | 1,395                  | 1,468                  | 1,670  | 2,107  | 2,285  | 2,408  | 2,669               |

Source : Ministry of Health in each country

- (1) *The Health Situation of Indonesia*, Ministry of Health
- (2) Dental Council
- (3) Professional Regulation Commissioner, Registered (cumulative)
- (4) Ministry of Health

Note : a) For 1993

b) Personnel Bureau, June, 1987

c) As of December 31

9 – 5 Number of Pharmacists

| Year                       | 1970   | 1975   | 1980              | 1985                 | 1986    | 1987                 | 1988                 | 1989   | 1990    | 1991   | 1992     |
|----------------------------|--------|--------|-------------------|----------------------|---------|----------------------|----------------------|--------|---------|--------|----------|
| BRUNEI                     |        |        |                   |                      |         | 9                    |                      |        |         | 10     | a)<br>13 |
| INDONESIA <sup>(1)</sup>   | 1,486  | 1,847  | 3,013             | 4,268 <sup>(2)</sup> | 4,513   | 4,814 <sup>(2)</sup> | 5,085 <sup>(2)</sup> | 5,207  | 5,399   | 5,345  | 5,592    |
| JAPAN                      | 79,393 | 94,362 | 116,056           | NA                   | 135,990 | NA                   | 143,429              | NA     | 150,627 | NA     | 162,021  |
| MALAYSIA                   |        | 258    | 488               | 843 <sup>(3)</sup>   | 963     | 1,050 <sup>(3)</sup> | 1,084                | 1,170  | 1,239   | 1,214  | 1,351    |
| Peninsular Malaysia        |        |        |                   | 732                  | 828     | 929                  | 956                  | 1,018  | 1,125   | 1,079  | 1,221    |
| Sabah                      |        |        | 17 <sup>(4)</sup> | 64                   | 84      | 64                   | 70                   | 80     | 45      | 50     | 42       |
| Sarawak                    |        |        |                   | 47                   | 51      | 57                   | 58                   | 72     | 69      | 85     | 88       |
| PHILIPPINES <sup>(5)</sup> | 19,076 | 20,838 | 23,225            | 26,440               | 25,088  | 27,493               | 27,732               | 28,764 | 29,612  | 30,971 | 32,126   |
| SINGAPORE <sup>(6)</sup>   | 245    | 288    | 368               | 436                  | 454     | 487                  | 526                  | 557    | 587     | 629    | 677      |
| THAILAND <sup>(7)</sup>    | 1,407  | 1,913  | 2,650             | 3,376                | 2,990   | 3,622                | 3,681                | 3,825  | 4,163   | 4,333  | 4,609    |

Source : Ministry of Health in each country

Note : a) For 1993

(1) *The Health Situation of Indonesia*, Ministry of Health

(2) Directorate General, Food & Drugs Control, Ministry of Health

(3) Pharmacy Board, Ministry of Health

(4) *Annual Report, Medical Department, Sabah, 1982*

(5) Professional Regulation Commissioner, Registered (cumulative)

(6) *Yearbook of Statistics, Singapore 1993*

(7) Health Statistics Division, Ministry of Public Health

9 – 6 Number of Midwives

| Year                       | 1970   | 1975   | 1980                    | 1985   | 1986                    | 1987                       | 1988                  | 1989                  | 1990   | 1991   | 1992      |
|----------------------------|--------|--------|-------------------------|--------|-------------------------|----------------------------|-----------------------|-----------------------|--------|--------|-----------|
| BRUNEI                     |        |        |                         |        |                         | 185                        |                       |                       |        | 407    | a)<br>464 |
| INDONESIA <sup>(1)</sup>   | 3,752  | 10,720 | 16,472                  |        | 22,500                  |                            | 15,393 <sup>(2)</sup> | 18,439 <sup>(3)</sup> | 22,405 | 29,869 | 36,187    |
| JAPAN                      | 28,087 | 26,742 | 25,867                  | NA     | 24,056                  | NA                         | 23,320                | NA                    | 22,918 | NA     | 22,690    |
| MALAYSIA <sup>(4)</sup>    |        |        |                         |        |                         | <sup>(5) b)</sup><br>5,256 | 5,389                 | 5,509                 | 5,492  | 5,543  | 5,476     |
| Peninsular Malaysia        |        | 3,767  | <sup>(4)</sup><br>5,002 | 5,673  | <sup>(5)</sup><br>3,795 | 3,819                      | 3,883                 | 3,913                 | 3,921  | 3,970  | 3,853     |
| Sabah                      |        |        |                         |        |                         | 444                        | 472                   | 499                   | 793    | 511    | 521       |
| Sarawak                    |        |        |                         | 970    |                         | 993                        | 1,034                 | 1,089                 | 1,078  | 1,062  | 1,102     |
| PHILIPPINES <sup>(6)</sup> | 16,082 | 18,528 | 42,114                  | 55,841 | 57,863                  | 60,169                     | 63,094                | 66,621                | 71,092 | 77,773 | 85,172    |
| SINGAPORE <sup>(7)</sup>   | 1,058  | 930    | 779                     | 623    | 603                     | 588                        | 569                   | 550                   | 543    | 529    | 530       |
| THAILAND <sup>(8)</sup>    | 4,203  | 6,335  | 8,669                   | 7,716  | 6,279                   | 8,934                      | 11,122                | 11,354                | 10,796 | 10,582 | 10,492    |

Source : Ministry of Health in each country

(1) *The Health Situation of Indonesia*, Ministry of Health

(2) Centre for Health Manpower Education, Ministry of Health

(3) Biro Kepegawaian, Data Jumlah yang bekerja di Depkes

(4) Nursing Board, Ministry of Health

(5) Division II, Midwives & Jururawat Desa

(6) Professional Regulation Commissioner, Registered (cumulative)

(7) *Yearbook of Statistics, Singapore 1993*

(8) Health Information Division, Ministry of Public Health

Note : a) For 1993

b) Government only

9 – 7 Number of Nurses

| Year                                                               | 1970    | 1975    | 1980    | 1985                           | 1986    | 1987    | 1988    | 1989    | 1990    | 1991    | 1992                             |
|--------------------------------------------------------------------|---------|---------|---------|--------------------------------|---------|---------|---------|---------|---------|---------|----------------------------------|
| BRUNEI                                                             |         |         |         |                                |         | 779     |         |         |         | 739     | a)<br>743                        |
| INDONESIA <sup>(1)</sup>                                           |         | 9,856   | 20,201  |                                |         | 20,340  | 32,977  | 42,024  | 50,350  | 53,308  | 65,805                           |
| JAPAN                                                              | 273,572 | 361,604 | 487,169 | NA                             | 639,936 | NA      | 694,999 | NA      | 745,301 | NA      | 795,810                          |
| MALAYSIA <sup>(2)</sup><br>Peninsular Malaysia<br>Sabah<br>Sarawak |         |         | 15,392  | 21,036<br>19,479<br>779<br>778 | 20,170  | 21,340  | 22,020  | 22,752  | 23,308  | 23,753  | 12,789<br>10,874<br>1,039<br>876 |
| PHILIPPINES <sup>(3)</sup>                                         | 38,918  | 64,165  | 114,657 | 148,514                        | 151,870 | 155,747 | 160,657 | 165,012 | 174,112 | 183,277 | 199,263                          |
| SINGAPORE <sup>(4)</sup>                                           | 4,304   | 5,767   | 7,545   | 8,393                          | 8,570   | 8,723   | 8,957   | 9,237   | 9,695   | 10,233  | 10,633                           |
| THAILAND <sup>(5)</sup>                                            | 15,387  | 18,993  | 18,483  | 38,683                         | 40,952  | 45,038  | 51,091  | 36,652  | 60,672  | 63,974  | 73,319                           |

Source : Ministry of Health each country

Note : a) For 1993

(1) Personal Bureau, Ministry of Health

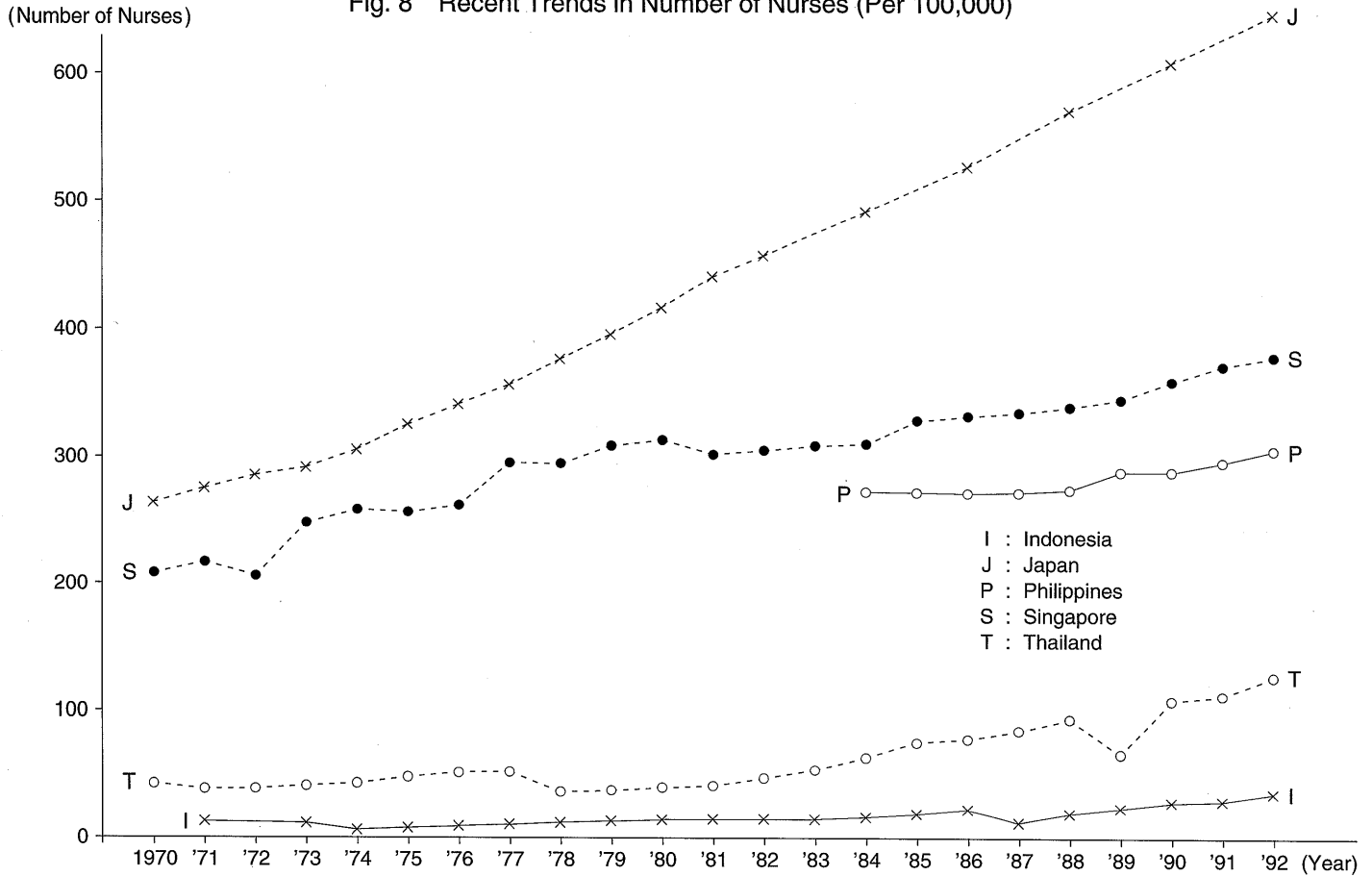
(2) Nursing Board, Ministry of Health

(3) Professional Regulation Commissioner, Registered (cumulative)

(4) *Yearbook of Statistics, Singapore 1993*

(5) Health Information Division, Ministry of Public Health

Fig. 8 Recent Trends in Number of Nurses (Per 100,000)



# 9 – 8 Situation of Medical Schools

|                            | Academic Year | Number of Medical Schools | Duration of Studies                                 | Total Enrolment | Admissions | Graduates |
|----------------------------|---------------|---------------------------|-----------------------------------------------------|-----------------|------------|-----------|
| BRUNEI                     |               | —                         |                                                     |                 |            |           |
| INDONESIA <sup>(1)</sup>   | 1992          | 28                        | 6 years                                             |                 |            | 1,898     |
| JAPAN <sup>(2)</sup>       | 1992          | 80                        | 6 Years                                             | 50,047          | 7,582      | 7,905     |
| MALAYSIA <sup>(3)</sup>    | 1992 / 1993   | 3                         | 6 Years                                             | 2,498           |            |           |
| PHILIPPINES <sup>(4)</sup> | 1991 / 1992   | 26                        | Pre-Med-4 Years<br>Proper-4 Years<br>Intern-1 Years |                 | 2,690      | 2,328     |
| SINGAPORE <sup>(5)</sup>   | 1992 / 1993   | 1                         | 5 Years                                             | a)<br>737       | a)<br>140  | a)<br>143 |
|                            |               |                           |                                                     | b)<br>46        | b)<br>10   | b)<br>13  |
| THAILAND <sup>(6)</sup>    | 1992          | 9                         | 6 Years                                             |                 |            | 826       |

Source : (1) Consortium Medical Service  
 (2) Ministry of Education  
 (3) Ministry of Education  
 (4) Association of Philippine Medical Colleges, Manila  
 (5) National University of Singapore  
 (6) Ministry of Public Health

Note : a) Singaporeans  
 b) Non-Singaporeans