SEAMIC HEALTH STATISTICS
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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.

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.

The changes introduced in the items included in the present edition are as follows:

- A new Table 1–5 has been added presenting the proportions of 3 broad age groups in the population, namely, 0–14 years, 15–64 years, and 65 years and over. The table shows decreasing trends in the proportion of children and increasing trends in the proportion of the elderly in most of the countries.
- A new Table 4–3 has been added on the mortality of children under 5 years of age, using an indicator now widely used in the world.
- In section 9 on human resources for health, 2 professional categories hitherto included have been deleted, viz., “veterinarians/veterinary surgeons” and “veterinary assistants”, as only a small proportion of them are working directly for human health.

The whole contents of this edition, as well as the previous editions for 1998 and 1999, are also accessible on the SEAMIC/IMFJ website (http://www.seamic-imfj.or.jp).

In view of the evolving information needs of the users, the contents of the publication will continue to be reviewed to make it more relevant, 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.

March 2001

Kazuo Uemura, Ph.D.
Chairman
Editorial Board
SEAMIC HEALTH STATISTICS

Contents

Part I

Health Statistics

Notes on Tables and Graphs

1. Population

1 – 1: This table gives statistics obtained at the latest population census conducted in each country, together with data on the average annual increase, surface area, and population density. Population censuses are undertaken every 10 years, usually in or around years ending with 0. Japan carries out its population censuses every 5 years ending with 0 and 5.

1 – 2: This table provides the trends in the estimated mid-year population since 1970.

1 – 3: This table shows population projections prepared by each country from the year 2000 onwards.

1 – 4 and Fig. 1: Population by age and sex is presented in the table in absolute numbers, and its percentage distribution is shown graphically as the population pyramid. The population figures shown in table 1 – 4 are used in the computation of rates presented in this publication. The figures for most countries relate to the mid-year population, but those for Japan relate to 1 October and those for Malaysia to 31 December.

1 – 5: This table presents the trends in the proportions of the 3 age groups, 0 –14, 15– 64, and 65 years and over, in the population of each country. This is a new table inserted in this issue, to show the decreasing proportion of the child population and the tendency of the ageing of the population in most countries.

1 – 6: The definition of the term “urban” varies among countries. The statistics presented in this table are those as reported by each country, by applying its own definition of the term.

2. General Vital Statistics and Life Tables

2 – 1 and Fig. 2: The trends in the crude live-birth rate are presented in tabular and graphic forms. The crude live-birth rate is computed by:

[(Number of live-births during a year) / (Population at the middle of the year)] $\times$ 1,000

2 – 2 and Fig. 3: The trends in the crude death rate are presented in tabular and graphic forms. The crude death rate is computed by:

[(Number of deaths during a year) / (Population at the middle of the year)] $\times$ 1,000

2 – 3: This table shows the vital statistics rates.

The crude marriage rate is computed by:

[(Number of marriages during a year) / (Population at the middle of the year)] $\times$ 1,000

The crude divorce rate is computed by:

[(Number of divorces during a year) / (Population at the middle of the year)] × 1,000

The general fertility rate is computed by:

[(Number of live-births during a year) / (Population of women aged 15–49 years at the middle of the year)] × 1,000

The infant mortality rate is computed by:

[(Number of deaths under 1 year of age during a year) / (Number of live-births during the year)] × 1,000

2 – 4: This table shows statistics on natality and mortality by sex and the natural increase rate.

The natural increase rate is computed by:

(Crude live-birth rate) – (Crude death rate), which is expressed per 1,000 population.

2 – 5: This table shows the number of deaths and the death rate by age and sex. The death rate for an age group (i.e. the age-specific death rate) is computed by:

[(Number of deaths in a specific age group during a year) / (Population in the age group at the middle of the year)] × 100,000

2 – 6: The expectation of life is computed by each country by means of a life table method. There are certain minor differences among countries in the method applied.

Fig. 4: The trends in the expectation of life at birth since 1975 are presented separately for male and for female.

2 – 7 and Fig. 5: The number of survivors (per 100,000 births) at specified ages is computed by each country by means of a life table method. There are certain minor differences among countries in the method applied.

3. Causes of Death

3 – A: This list of cause-of-death groups is used for the ranking of cause-of-death groups. The list has been applied to the detailed statistics presented in table 3 – 3. In establishing this list the following points were taken into consideration:

— In view of the importance of diarrheal diseases as causes of death in some of the countries, intestinal infectious diseases were taken together as a single group.

— In order to highlight the growing importance of malignant neoplasms as a leading cause of death, they were taken as a single group.

— Myocardial infarction is becoming an important cause of death, but it appears under-diagnosed in some countries in which less specific

terms are used frequently in the death certificates. To achieve a greater comparability of statistics among the countries, all heart diseases were combined into a single group.

— As influenza often seems to lead to the death certificate diagnosis of pneumonia, these two conditions were combined for the purpose of ranking causes of death.

— The "remainder categories" were excluded from the ranking process.

— Senility and ill-defined conditions were excluded from the ranking process.

3 – 1 and 3 – 2: The list given in 3 – A was used to establish these tables, as indicated above. The tables also show the percentage of each cause among all deaths assigned to "specific" causes of death, namely by using

(All deaths) – (Deaths due to senility) – (Deaths assigned to ill-defined conditions)

for the denominator. Here the rubric used for senility is 465 of ICD-9 and R54 of ICD-10, while the rubrics for ill-defined conditions are 460–464, 466, 467 and 469 of ICD-9, and R00–R53 and R55–R99 of ICD-10.

3 – 3: This table shows the number of deaths and the death rate by causes, for each sex. Some of the countries have introduced ICD-10 in coding causes of death, while others are still using ICD-9. There are minor differences in the contents of some of the disease categories between the two versions of ICD, as mentioned in the footnotes to this table.

3 – 4: This table shows the percentages of deaths which are medically certified and those not certified.

4. Child and Maternal Health

4 – 1: The following definitions are used for the perinatal events:

Fetal death: Fetal death after at least 22 weeks of gestation.

Neonatal death: Death under four weeks.

Post-neonatal death: Death from 4 weeks to under 1 year.

Perinatal death: Fetal death and death under 1 week.

The rates corresponding to these deaths, except the perinatal mortality rate, are computed per 1,000 live-births.

For the perinatal mortality rate, the total number of births, i.e. fetal deaths plus live-births, is used for the denominator.

4 – 2: The columns for "– 1 day", "2 – 6" and "7 – 27" together refer to neonatal mortality. The column "28 – 365" refers to post-neonatal mortality.

Fig. 6: This graph shows the trends in the infant mortality rate since 1976.

4 – 3: This table shows the under-5 mortality rete, which is defined as the probability of dying before reaching 5 years of age. The probability is expressed per 1,000 live-births, and has been computed by the following formula, on the basis of the life table survivors shown in table 2 – 7:

Under-5 mortality rete = [100,000 − (Survivors at age 5 years)] / 100.

4 – 4 and Fig. 7: The trends in the maternal mortality rate are presented in tabular and graphic forms. Maternal mortality concerns death due to complications of pregnancy, childbirth and the puerperium (Chapter XI of ICD-9, or Chapter XV of ICD-10), and the rate is computed by

Maternal mortality rate = [(Number of maternal deaths during a year) / (Number of live-births during the year)] × 100,000

4 – 5: This table shows the percentage of women of childbearing age who currently use contraceptive methods. The percentages for the methods may add up to over 100, as some women use more than one method.

4 – 6: This table shows the percentage of women who received prenatal care at least 4 times from trained health personnel during the entire pregnancy.

5. Morbidity from Infectious Diseases

This section concerns the incidence of infectious diseases and the coverage of immunization.

5 – A: The infectious diseases are listed for each country of which the reporting of incidence is required by law from the physician or the medical institution treating the patient.

5 – B: The target diseases of the national immunization programme are listed for each country. The age group to be immunized may differ from disease to disease and from country to country.

5 – 1: This table presents statistics on the number of cases of diseases which occur frequently and are notifiable in the majority of the countries.

5 – 2: This table presents statistics on the percentage of infants immunized against 6 diseases which are included in the programmes of all the countries.

6. Nutrition

Statistics included in this section were obtained from sample surveys on nutrition, food consumption or anthropometry. Most countries carry

out such surveys periodically but not necessarily every year.

6 – 1: This table shows the intake of various kinds of nutrients per capita, obtained from food consumption surveys.

6 – 2, 6 – 3 and 6 – 4: These tables show the average length, weight, and chest circumference of infants, measured at birth and at 4 weeks, 3 months, 6 months, 9 months and 12 months after birth.

6 – 5 and 6 – 6: These tables concern the height and weight measured at each age from 1 to 18 years. Both the average and the standard deviation are included.

7. Environmental Health and Socio-Economic Situation

7 – 1: This table shows statistics on the availability of safe water and sanitary toilet, and on the types of lighting used.

Safe water means that it does not contain biological or chemical agent at concentration levels directly detrimental to health. Safe water includes treated surface water and untreated but uncontaminated water such as that from protected boreholes, springs and sanitary wells.

A sanitary toilet is a facility for the disposal of human excreta which isolates faeces from contact with people, animals, crops and water sources. Suitable facilities range from simple but protected pit latrines to flush toilets with sewage.

7 – 2: This table presents 3 socio-economic indicators which have a bearing on health.

Adult literacy relates to the ability of people aged 15 years and over who can both read and write a short simple statement on their everyday life. The rate is expressed as the percentage of adults with literacy.

The gross domestic product (GDP) measures the total domestic value claimed by both residents and non-residents of a country. The value is calculated in the national currency, but, for international comparisons, it has been converted to US dollars according to the average exchange rate for the year and further divided by the population of the country.

Labour force participation relates to people in work or available for work, i.e. the total number of people in employment plus the number unemployed. The rate is computed as the percentage of people in labour force among those aged 15 years and over.

7 – 3: This table concerns the expenditure of the Ministry of Health (or its equivalent). It does not cover health expenditures borne by other Ministries or by local governments not financed by the central Ministry of Health. On the other hand, the expenditures shown in this table may include those beyond health proper such as some social security expenditures for which the Ministry of Health may be responsible. The values in the national currency have been converted to US dollars by applying the average exchange rate for the year.

7 – 4: This table shows the percentage of adults who smoke, namely,

Adult smoking rate = [(Number of adult smokers) / (Number of adults investigated)] × 100 (%)

All regular smokers are included in the numerator, regardless of the amount smoked daily. The age group investigated varies from country to country.

8. Medical Establishments

8 – A: This list provides the definitions of medical establishments and related statistical terms used in this section.

8 – B: This table shows which of the 11 categories of medical establishments included in the statistics of this section are formally recognized in each country.

8 – 1 and Fig. 8: The trends are shown in the number of hospitals operating in each country (per 100,000 population in Fig. 8).

8 – 2 and Fig. 9: The trends in the number of hospital beds available in each country are shown in the table and the trends in the beds / population ratio in the graph.

8 – 3: This table provides detailed statistics on 11 categories of medical establishments in each country.

8 – 4: This table shows the utilization of hospitals. The bed occupancy rate and the average length of stay during a year are computed by the following formulae:

Bed occupancy rate = [(Occupied bed-days) / (Available bed-days during the year)] × 100 (%)

Average length of stay = (Number of inpatient days of care provided to discharged patients) / (Number of discharges),

where discharges include all separations through return to the patient's home, transfer to another hospital or institution, and death. Newborn babies are excluded from the computation. The day of admission is counted as 1 day but the day of discharge is not counted. Admission and discharge on the same day is counted as 1 day.

9. Human Resources for Health

9 – A: This list provides the definitions of the 28 health professions dealt with in this section.

9 – B: This table shows which of the 28 professions included in this section are recognized formally in each country.

9 – 1: This table gives the number of persons in each of the 28 professions considered.

9 – 2: This table gives the ratios of health personnel per population and population per health personnel, for 6 professions.

9 – 3 and Fig. 10: The table gives the trends in the number of physicians, while the graph shows the trends in the physician / population ratio. A sudden rise is seen for Malaysia in 1997 in the number of physicians, due to the changed definition. Up to 1996, only those physicians who were issued an annual practising certificate by the Malaysian Medical Council were included in the statistics. Starting from 1997, the numbers have included also those in any other medical fields such as teaching, administration, research and laboratory, as defined in Table 9 – A.

9 – 4, 9 – 5 and 9 – 6: These tables show the trends in the numbers of dentists, pharmacists and midwives, respectively.

9 – 7 and Fig. 11: The table shows the trends in the number of nurses, and the graph the trends in the nurses / population ratio.

9 – 8: This table shows the number and percentage of physicians, dentists and pharmacists by sex.

9 – 9: This table gives data on the number of medical schools and the enrolment situation.

Explanation of Symbols

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

1. Population

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

	Latest Census						Annual Rate of Increase (%)	Surface Area (km^2)	Density (Persons / km^2)
	Date	Total	Male	Female	Sex Ratio	Persons per Household			
BRUNEI (1)	26 August 1991	260,482	137,616	122,866	112.0	6.0	a) 2.4	5,765	51
INDONESIA (2)	15 September–31 October 1990	179,322,000	89,436,285	89,885,715	99.5	4.5	b) 1.6	c) 1,937,179	c) 107
JAPAN (3) d)	1 October 1995	125,570,246	61,574,398	63,995,848	96.2	2.8	e) 1.6	377,829	337
MALAYSIA (4)	14 August 1991	18,379,655	9,327,519	9,052,136	103.0	4.8	f) 2.6	329,758	54
PHILIPPINES (5)	1 September 1995	68,616,536	34,584,170	34,032,366	101.6	5.1	f) 2.3	300,000	229
SINGAPORE (6) g)	30 June 1990	2,705,115	1,370,059	1,335,056	102.6	4.2	h) 2.0	c) 660	i) 5,900
THAILAND (7)	1 April 1990	54,548,530	27,061,733	27,486,797	98.5	4.4	j) 2.0	513,115	106
VIETNAM (8)	1 April 1999	76,327,919	37,518,547	38,809,372	96.7			331,114	235

Source : (1) Department of Economic Planning and Development, Ministry of Finance
(2) ***National Socio-Economic Survey 1999,*** BPS-Statistics Indonesia
(3) ***1995 Population Census of Japan,*** Statistics Bureau, Management and Coordination Agency
(4) ***Population and Housing Census of Malaysia, 1991,*** Department of Statistics
(5) National Statistics Office
(6) ***Census of Population 1990 Singapore,*** and ***Yearbook of Statistics, Singapore,*** Department of Statistics
(7) ***1990 Population and Housing Census,*** National Statistics Office, Office of the Prime Minister.
(8) General Statistics Office

Note : a) 1998–1999
b) 1995–1999
c) Year 1999
d) All residents
e) 1990–1995
f) 1980–1991
g) Singapore residents only
h) 1990–1999
i) Total population 1999
j) 1981–1990

1 – 2 Estimates of Mid-year Population

(in thousands)

	1970	1975	1980	1985	1990	1993	1994	1995	1996	1997	1998	1999
BRUNEI (1)	130	156	185	218	253	276	285	296	305	314	323	331
INDONESIA (2)	119,470	130,500	146,360	163,370	178,440	187,589	192,217 a)	195,294 a)	198,520 a)	201,353 a)	204,393	207,437
JAPAN (3) b)	102,805	110,311	116,107	120,037	122,726	123,692	123,999	124,245	124,615	124,881	125,189	125,402
MALAYSIA (4)	10,768	12,175	13,764	15,681	17,764	19,208	19,658	20,108	21,169	21,665	22,180	22,710
PHILIPPINES (5)	36,849	42,517	48,317	54,668	62,049	66,982	68,624	68,617	69,946	71,550	73,148	74,746
SINGAPORE (6) c)	2,075	2,263	2,282	2,483	2,705	2,874	2,930	2,987	3,044	3,104	3,164	3,218
THAILAND (7)	36,370	41,388	46,718	51,683	56,340	58,584	59,695	59,401	59,788	60,602	61,201	61,563
VIETNAM (8)	41,063	47,638	53,722	59,872 d)	66,2335	70,982	72,509	73,959	75,355	76,715	78,059	76,328

Source : (1) Department of Economic Planning and Development, Ministry of Finance
(2) Population Projection 1995–2005 in December figure, BPS-Statistics Indonesia
(3) Statistics Bureau, Management and Coordination Agency
(4) ***Yearbook of Statistics,*** Department of Statistics
(5) National Statistics Office, 1995—Census Based National-Regional Projection
(6) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(7) ***Report of Working Group on Population Projections,*** Office of the National Economic and Social Development Board
(8) Ministry of Health

Note : a) Revised figure
b) Japanese nationals only
c) Population figures from 1980 onwards refer to Singapore residents only
d) 1986

1 – 3 Population Projections

(in thousands)

	2000	2005	2010	2015	2020	2025	2030	2035	2040
BRUNEI (1)	a) 345	b) 389	c) 437		516	560	604	648	
INDONESIA (2)	210,486	225,748	242,115	259,668	278,493	298,685	320,339		343,564
JAPAN (3) d)	126,892	127,684	127,623	126,444	124,133	120,913	117,149	113,114	108,964
MALAYSIA (4)	23,264	25,843	28,411	31,081	33,855				
PHILIPPINES (5)	76,320	84,215	91,851	99,008	105,503	111,473	117,060	122,016	126,173
SINGAPORE (6) e)	3,268	3,539	3,798	3,967	4,118	4,248	4,348	4,421	
THAILAND (7) f)	61,444	65,299	67,681	69,567	63,589	66,319	68,489		
VIETNAM (8)	81,200	88,300	93,400						

Source : (1) Based on ***Demographic Situation and Population Projections 1991–2011,*** Statistics Division, Department of Economic Planning & Development, Ministry of Finance
(2) Population Projection 1995–2005 in December figure, BPS-Statistics Indonesia
(3) ***Population Projections for Japan: 1996–2050,*** 1997, Institute of Population Problems, Ministry of Health and Welfare
(4) Department of Statistics
(5) National Statistics Office-1995 Census based National-Regional Projection
(6) Population Planning Section, Ministry of Health
(7) ***Thailand Population Projection 1999–2016,*** Office of the National Education Commission, Office of the Prime Minister
(8) Ministry of Health

Note : a) Year 2001
b) Year 2006
c) Year 2011
d) Population on 1 October
e) Singapore residents only
f) Revised figures

1 – 4 Population by Age and Sex

	Year	Sex	Ages								
			All Ages	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39
(1) BRUNEI	1999	T	330.7	38.6	36.5	32.5	28.8	29.2	31.1	31.4	28.9
		M	175.2	20.0	19.0	16.8	15.0	15.0	16.5	17.0	15.9
		F	155.5	18.6	17.5	15.7	13.8	14.2	14.6	14.4	13.0
(2) INDONESIA	a) 1999	T	207,437	21,440	19,376	21,318	23,127	20,113	17,182	15,963	15,024
		M	103,234	10,912	9,863	10,916	11,754	9,980	8,161	7,576	7,336
		F	104,203	10,527	9,513	10,402	11,373	10,133	9,021	8,387	7,688
(3) b) JAPAN	1999	T	125,432	5,891	5,986	6,713	7,591	8,768	9,708	8,492	7,768
		M	61,358	3,020	3,066	3,439	3,889	4,494	4,944	4,298	3,922
		F	64,074	2,871	2,919	3,274	3,701	4,273	4,765	4,194	3,845
(4) MALAYSIA	1998	T	22,180	2,576	2,524	2,447	2,243	2,087	1,904	1,737	1,572
		M	11,352	1,328	1,301	1,257	1,157	1,087	987	890	802
		F	10,828	1,248	1,223	1,190	1,087	1,000	917	848	770
(5) PHILIPPINES	1998	T	73,148	9,545	9,083	8,389	7,631	6,847	6,067	5,301	4,549
		M	36,851	4,900	4,673	4,274	3,853	3,436	3,034	2,654	2,285
		F	36,297	4,645	4,410	4,115	3,778	3,411	3,033	2,647	2,264
(6) c) SINGAPORE	1999	T	3,217.5	233.8	254.5	229.0	209.1	215.3	271.0	291.8	316.5
		M	1,613.6	121.0	131.4	118.3	108.0	107.2	131.9	144.4	160.0
		F	1,603.9	112.8	123.1	110.7	101.1	108.1	139.1	147.4	156.5
(7) THAILAND	1999	T	61,564	5,262	5,396	5,490	5,709	5,751	5,550	5,184	4,759
		M	30,621	2,654	2,718	2,772	2,893	2,921	2,826	2,615	2,362
		F	30,943	2,608	2,678	2,718	2,816	2,830	2,724	2,569	2,397
(8) VIETNAM	1999	T	76,328	7,269	9,161	9,132	8,219	6,765	6,474	6,001	5,552
		M	37,519	3,785	4,745	4,724	4,124	3,283	3,226	2,985	2,700
		F	38,809	3,484	4,416	4,408	4,095	3,482	3,248	3,016	2,852

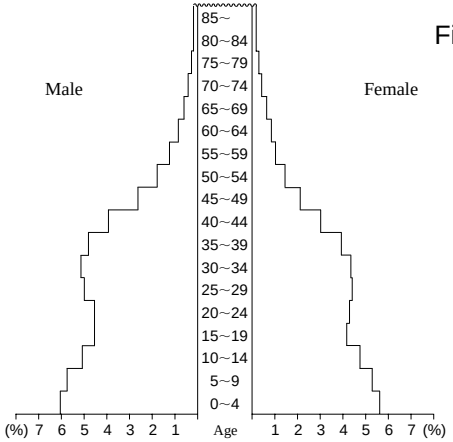
Source : (1) Department of Economic Planning and Development, Ministry of Finance
(2) Province Population Projection 1995–2005, BPS-Statistics Indonesia
(3) Statistics Bureau, Management and Coordination Agency
(4) Department of Statistics
(5) National Statistics Office
(6) Department of Statistics
(7) ***The Central Office for Civil Registration,*** Ministry of Interior
(8) Ministry of Health

(in thousands)

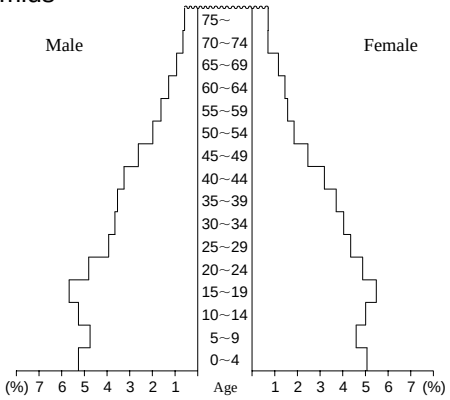
Age									
40 – 44	45 – 49	50 – 54	55 – 59	60 – 64	65 – 69	70 – 74	75 – 79	80 – 84	85 +
23.0	15.7	10.7	7.9	5.6	4.1	2.8	1.9	1.2	1.2
13.0	8.7	5.9	4.1	2.8	2.0	1.4	0.9	0.6	0.6
10.0	7.0	4.8	3.4	2.8	2.1	1.4	1.0	0.6	0.6
13,359	10,536	7,944	6,614	5,662	4,325	2,785		2,669	
6,734	5,437	4,104	3,353	2,650	1,920	1,342		1,197	
6,625	5,099	3,841	3,261	3,012	2,405	1,444		1,472	
7,794	9,364	9,794	8,852	7,597	6,928	5,718	3,911	2,460	2,099
3,918	4,685	4,878	4,346	3,674	3,266	2,565	1,484	862	608
3,876	4,680	4,915	4,506	3,923	3,662	3,153	2,427	1,598	1,491
1,325	1,055	786	611	483	348	229	145	108	
678	541	404	309	237	164	104	61	46	
648	514	382	302	246	184	126	83	62	
3,824	3,136	2,517	1,961	1,510	1,126	798	494	371	
1,924	1,578	1,259	970	735	535	366	219	158	
1,900	1,558	1,258	991	775	591	432	275	213	
300.8	248.6	179.6	128.7	103.7	83.0	62.6	40.7	25.2	23.6
153.2	127.0	90.7	63.9	50.7	39.7	28.9	18.2	10.2	8.9
147.6	121.6	88.9	64.8	53.0	43.3	33.7	22.5	15.0	14.7
4,290	3,589	2,756	2,333	2,007	1,498	953		1,036	
2,128	1,758	1,339	1,114	948	694	439		440	
2,162	1,831	1,417	1,219	1,059	804	514		596	
4,509	3,105	2,137	1,804	1,767	1,682	1,209	834	419	290
2,144	1,468	965	794	776	751	504	314	143	87
2,365	1,637	1,172	1,011	991	931	705	520	275	202

Note : a) As of December 1999
b) Japanese nationals only, as of 1 October
c) Singapore residents only

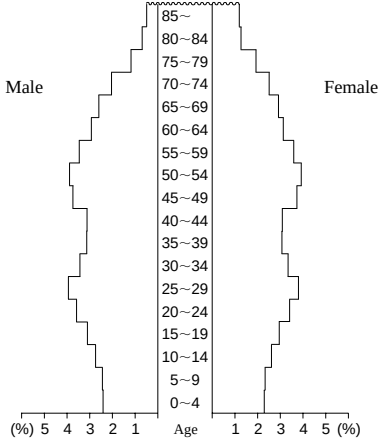
Fig. 1 Population Pyramids



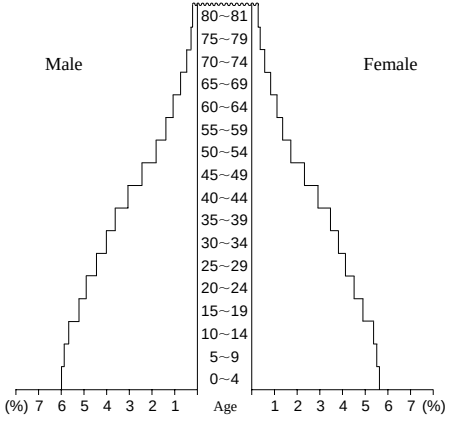
BRUNEI DARUSSALAM 1999



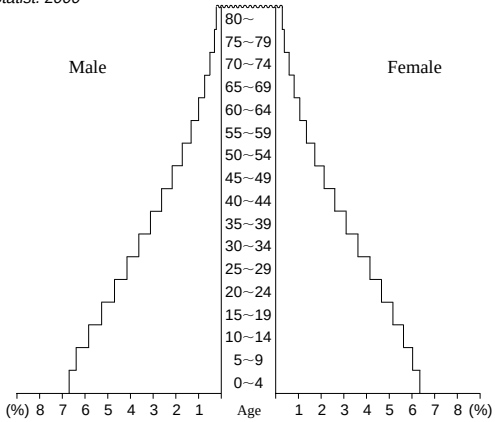
INDONESIA 1999



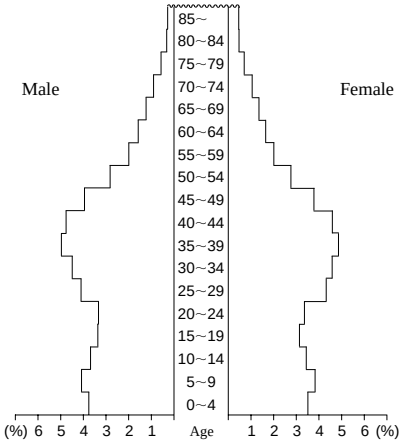
JAPAN 1999



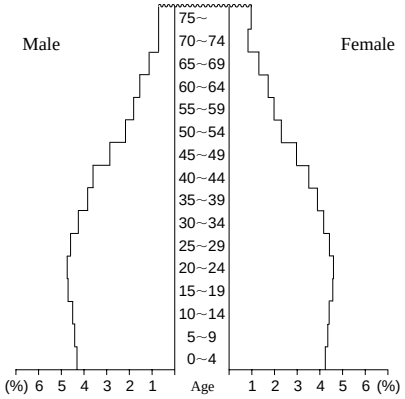
MALAYSIA 1998



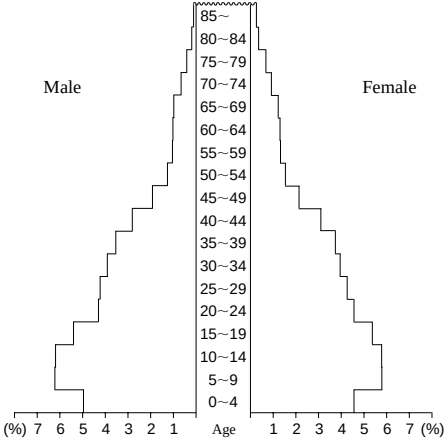
PHILIPPINES 1998



SINGAPORE 1999



THAILAND 1999



VIETNAM 1999

1 – 5 Proportions of 3 Age Groups in the Population

(%)

	Ages	1970	1975	1980	1985	1990	1995	1996	1997	1998	1999
BRUNEI	All ages					a) 100.0	100.0	100.0	100.0	100.0	100.0
	0 – 14					36.1	33.2	32.9	32.8	32.9	32.5
	15 – 64					61.2	63.9	64.1	63.9	63.8	64.1
	65+					2.7	2.9	3.0	3.3	3.3	3.4
INDONESIA	All ages	b) 100.0	c) 100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	0 – 14	44.0	42.1	43.5	39.2	36.5	33.5	32.0	31.3	30.5	30.0
	15 – 64	53.5	55.0	53.2	57.5	59.6	62.3	63.7	64.4	64.9	65.3
	65+	2.5	2.9	3.3	3.3	3.9	4.2	4.3	4.3	4.6	4.7
JAPAN (1)	All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	0 – 14	23.9	24.3	23.5	21.5	18.2	15.9	15.6	15.4	15.1	14.8
	15 – 64	69.0	67.8	67.4	68.2	69.7	69.6	69.3	68.9	68.7	68.4
	65+	7.1	7.9	9.1	10.3	12.1	14.5	15.1	15.7	16.2	16.8
MALAYSIA	All ages			100.0	100.0	100.0	d) 100.0	100.0	100.0	100.0	
	0 – 14			39.6	38.0	36.8	35.8	35.0	34.5	34.0	
	15 – 64			56.8	58.2	59.3	60.4	61.3	61.8	62.3	
	65+			3.6	3.8	3.9	3.8	3.7	3.7	3.7	
PHILIPPINES	All ages		e) 100.0	100.0	f) 100.0	100.0	100.0	100.0	100.0	100.0	
	0 – 14		43.5	42.0	40.0	39.6	38.3	37.8	37.4	36.9	
	15 – 64		53.6	54.6	56.6	57.0	58.2	58.6	58.9	59.3	
	65+		2.9	3.4	3.4	3.4	3.5	3.6	3.7	3.8	
SINGAPORE	All ages		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	0 – 14		33.0	27.1	24.4	23.2	22.9	22.8	22.7	22.5	22.3
	15 – 64		63.0	68.2	70.4	70.7	70.4	70.3	70.3	70.4	70.4
	65+		4.0	4.7	5.2	6.1	6.7	6.9	7.0	7.1	7.3
THAILAND	All ages		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	0 – 14		46.1	38.3	36.5	33.4	28.0	27.6	27.1	26.7	26.2
	15 – 64		50.7	58.1	59.9	62.8	66.9	67.2	67.6	67.8	68.1
	65+		3.2	3.6	3.6	3.8	5.1	5.2	5.3	5.5	5.7
VIETNAM	All ages							100.0	100.0		100.0
	0 – 14							36.8	36.8		33.5
	15 – 64							57.5	57.4		60.7
	65+							5.7	5.8		5.8

Source : Table 1 – 4 of this issue and the corresponding tables in the previous issues of ***SEAMIC Health Statistics***, except Japan
(1) Satatistics Bureau, Management and Coordination Agency

Note : a) For 1989
b) For 1971
c) For 1976
d) For 1994
e) For 1974
f) For 1986

1 – 6 Urban and Total Population

(in thousands)

	1960			1970			1980			1990 or latest		
	Total	Urban	(%)	Total	Urban	(%)	Total	Urban	(%)	Total	Urban	(%)
BRUNEI (1)	84	37	43.6	a) 136	87	63.6	b) 193	115	59.4	c) 261	173	66.6
INDONESIA (2)	d) 97,085	14,358	14.8	119,143	20,733	17.4	146,776	32,846	22.4	e) f) 204,393	89,186	37.1
JAPAN (3)	94,300	59,698	63.3	104,666	75,429	72.1	117,600	89,187	76.2	g) 125,570	98,009	78.1
MALAYSIA (4)	8,170	2,060	25.2	10,439	2,799	26.8	13,136	4,492	34.2	c) 17,563	8,899	50.6
PHILIPPINES (5)	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 (6)	d) 1,446	1,132	78.0	2,075	1,562	75.0	h) 2,282	2,282	100.0	e) h) 3,218	3,218	100.0
THAILAND (7)	(8) 26,258	3,274	12.5	34,397	4,553	13.2	44,824	7,633	17.0	54,548	10,215	18.7
VIETNAM (9)	30,172	4,727	15.7	41,063	8,787	21.4	53,722	10,300	19.2	e) 76,328	17,918	23.5

Source : (1) Department of Economic Planning and Development, 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, Department of Statistics
(5) National Statistics Office
(6) ***Report on the Census of Population, Singapore, Vol. 1,*** Department of Statistics
(7) ***Population and Housing Census,*** National Statistical Office, Office of the Prime Minister
(8) ***1960 Population Census,*** Central Statistics Office, National Economic Development Board
(9) ***Health Statistics Yearbook,*** Statistics and Informatic Division, Ministry of Health

Note : a) For 1971
b) For 1981
c) For 1991
d) For 1957
e) For 1999
f) Calculated by Centre for Health Data, Ministry of Health based on Population Projection 1990–2000 and 2000–2005
g) For 1995
h) Singapore residents only

2. General Vital Statistics and Life Tables

2 – A A Brief Description of Population and Vital Statistics Trends

BRUNEI DARUSSALAM

Population:

The population is rising with an annual growth rate of around 2.4% during 1998–1999. The population was estimated at 330,700 in 1999. The proportion of elderly people aged 60 years and over increased from 4.1% in 1991 to 5.1% in 1999.

Crude Birth and Death Rates:

There were 7,408 live-births with the crude rate of 22.4 per 1,000 population in 1999, as compared with 7,411 live-births with the corresponding rate of 22.9 in 1998. The number of deaths in 1999 was 905 and the crude death rate was 2.7, showing a drop from the preceding year.

Trends of Causes of Deaths:

During 1999, malignant neoplasms were the top leading cause of death followed by heart diseases, diabetes mellitus, cerebrovascular diseases and bronchitis (chronic and unspecified), emphysema and asthma, transport accidents and hypertensive diseases. The ICD-10 coding scheme was implemented in January 1996.

Life Expectancy:

The expectation of life at birth was 75.4 years for males and 77.7 years for females in 1995. During the period 1971 to 1995, the gain in life expectancy at birth was 13.5 years for males and 15.6 years for females.

Health Care Status:

The Ministry of Health is always on vigilance of the World Health Organization indicators for monitoring the progress of the Global Strategy for Health for All. Almost all indicators that have been appraised for Brunei Darussalam for the year 1999 were found to meet the WHO targets, which indicated a marked progress towards a better health status. Brunei Darussalam is free of major communicable diseases. The long-term health policy is to provide the highest level of health care which is cost-effective and a quality of life for the whole population in a clean and healthy environment.

INDONESIA

Population:

Indonesia has an estimated 1999 population of more than 204 million. This would make Indonesia the fourth most populous country in the world after the People's Republic of China, India, and the United States of America.

The nation's population growth rate has been continuously declining. During 1990–1999, the estimated annual population growth was 1.54%, compared to 2.05% in 1970–1980 and 2.00% in 1980–1990. The census and survey data show that Indonesia's fertility has declined significantly since the 1970s. The crude birth rate, which was estimated at 33.7 births per 1,000 population in the period 1980–1985, declined to an estimated 25.3 per 1,000 in the period 1990–1995.

Crude Death Rate:

The crude death rate has been showing a downward trend since the early 1970s. The rate in 1999 is estimated at 7.5 per 1,000 population, compared to 18.7, 12.5, and 9.7 in 1970, 1980, and 1990, respectively. The 1992 Household Health Survey found that cardiovascular diseases were

the prime cause of death. In earlier surveys, infectious diseases were the prime cause, while cardiovascular diseases were not even among the top five causes.

Life Expectancy:

In the early 1970s, the life expectancy at birth was still very low: 45 years for males and 48 years for females. The current life expectancy at birth is estimated at 64.6 years for males and 68.3 years for females. This longer life expectancy is very much influenced by the decreased mortality, particularly among infants, due to the successful health programme.

JAPAN

Population:

The population has been growing every year, reaching 125.4 million on 1 October 1999. The proportion of people over 65 years old was 16.8% in 1999 and is growing rapidly.

Crude Birth Rate:

The number of births in 1999 was 1,177,669 and the crude birth rate was 9.4 (per 1,000 population). The rate had decreased slightly.

Crude Death Rate:

The number of deaths in 1999 was 982,031 and the crude death rate was 7.8 (per 1,000 population). The rate used to decrease after World War II, but has turned increasing gradually in recent years, caused by the rising number of aged people's deaths.

Trends of Causes of Death:

In 1995, there was a significant change in the ranking of causes of death: heart diseases, which used to be the second frequent cause of death, shifted to the third cause, and cerebrovascular diseases, which used to be the third cause, moved to the second rank. This change seems to be due to the use of ICD-10 instead of ICD-9 and to a reform of death certification, consisting of the introduction of the new international certificate and the discouragement of using non-specific disease terms. The ranking of the two disease groups was reversed again in 1997, with heart diseases as the second and cerebrovascular diseases as the third most frequent causes, due to a decline in the cerebrovascular disease mortality.

Life Expectancy:

In 1999, Japanese life expectancy at birth for male was 77.10 years, which represented a decrease by 0.06 year as compared with the preceding year. Life expectancy for females was 83.99 years, also showing an decrease by 0.02 year.

Health Care Status:

Most Japanese are enjoying good health. About 80% of people consider themselves healthy or very healthy. The Ministry of Health and Welfare continues to make efforts to provide a high-quality, efficient, cost-effective, accessible health care system, to prevent diseases and to promote health.

MALAYSIA

In 1999, Malaysia had a population of 22,179,500 people, an increase of 514,000 persons or 2.3% over the population in 1998. The crude

birth rate has been falling gradually since 1985.

Life expectancy among Malaysians today is comparable to many developed countries, under the favourable socio-economic conditions prevailing in the country. The life expectancy was 69.8 years for men and 74.7 years for women in 1998.

PHILIPPINES

Population:

The total population of the Philippines on September 1, 1995 by actual count was 68,616,536 persons, showing an increase of 7,913,330 persons or 13 percent over the 1990 census count of 60,703,206.

The 1995 census showed that the males numbered 34,584,170, which is 551,804 persons more than the female population of 34,032,366. The census indicated a sex ratio of 101.6.

In 1998, the Philippines continued to have a young population with 57 percent of its citizens aged under 25 years. Only 3.8 percent of the Filipinos were 65 years or older.

Crude Birth Rate:

The crude birth rate stood at 27.3 in 1999.

Crude Death Rate:

The crude death rate in 1999 was 6.0.

Life Expectancy:

Expectancy of life at birth for the average male was 62.65 years and that for the average female was 67.90 years in 1995.

SINGAPORE

Population:

The mid-year resident population of Singapore grew marginally by about 1.7% from 3.16 million in 1998 to 3.22 million in 1999. The majority of the population was the Chinese (76.9%), followed by the Malays (14.0%) and the Indians (7.7%). The population continued to age, with the proportion of those aged 65 years and above, increasing from 7.1% in 1998 to 7.3% in 1999. The median age of the population stood at 33.4 years, up from 32.9 years in 1998.

The rate of natural increase dropped from 8.6 per 1,000 resident population in 1998, to 8.3 per 1,000 residents, in 1999. There were 43,336 live births in 1999, which was a decrease of 0.8% from the 43,664 births in 1998. The total fertility rate correspondingly fell to 1.48 births per woman in 1999 as compared with 1.49 births per woman in 1998. The crude death rate dropped from 4.6 deaths per 1,000 resident population in 1998 to 4.5 death per 1,000 resident population in 1999.

Life Expectancy:

The average life expectancy at birth of Singapore residents was 77.4 years in 1998. Expectancy of life at birth for the average male was 75.4

years and that for the average female was 79.5 years.

Health Care Status:

The health of Singaporeans continues to improve with life expectancy increasing and infant mortality remaining low.

THAILAND

Population:

Thailand had a population of around 61.6 million in 1999. The current annual population growth rate is 0.6 percent. The trend of population growth indicates that the country is becoming more urbanized, with an increase in proportion of working ages and old ages, and a decrease in the dependency ratio.

Crude Birth Rate:

The birth rate decreased from 31.5 in 1970 to 12.5 in 1999, reflecting the successful campaign on the Family Planning Project undertaken by the Ministry of Public Health.

Crude Death Rate:

Data on deaths used to be collected from the peripheral level by the Ministry of Interior (MOI) through the annual reporting system based on death certificates. The crude death rate obtained showed a decrease from 6.2 per 1,000 in 1970 to 5.5 in 1995. There was, however, some under-registration. With the change introduced in 1996 by which individual data from the death certificates are to be transmitted directly to the MOI's database, the data coverage and completeness improved, resulting in a rise of the death rate to 5.9 in that year. In 1997 an online computer system was installed by the MOI, but due to the initial imperfections of the system, coupled with the staff's inexperience in its operation, the registered rate dropped to 5.0. With an improved system operation the rate again rose to 5.9 in 1999, but this rise was also partly due to the cleaning of the MOI's population database which discarded the records, as obsolete, for those over 100 years of age maintained at the Central Household Registration of each province.

Life Expectancy:

As a result of the success in health development, life expectancy of the Thai people has increased by the average of 0.46 year annually, in male from 60 years during 1980–1985 to 63 years during 1990–1995 (70.0 years in 1995) and in female from 66 years to 68 years between the same period of time (75.0 years in 1995).

VIETNAM

Over the period from 1986 to 1999, the total population of Vietnam increased from 61.1 million to 76.3 million, with the average annual increase of 1.72%.

The crude birth rate in 1999 was 19.9 per 1,000 live-births, showing a decline from the rate of 28.5 in 1993. The total fertility rate declined from 3.8 in 1989 to 2.3 in 1999.

During the period 1993–1999 the crude death rate dropped from 6.7 to 5.6 per 1,000 population.

2 – 1 Crude Live-birth Rates

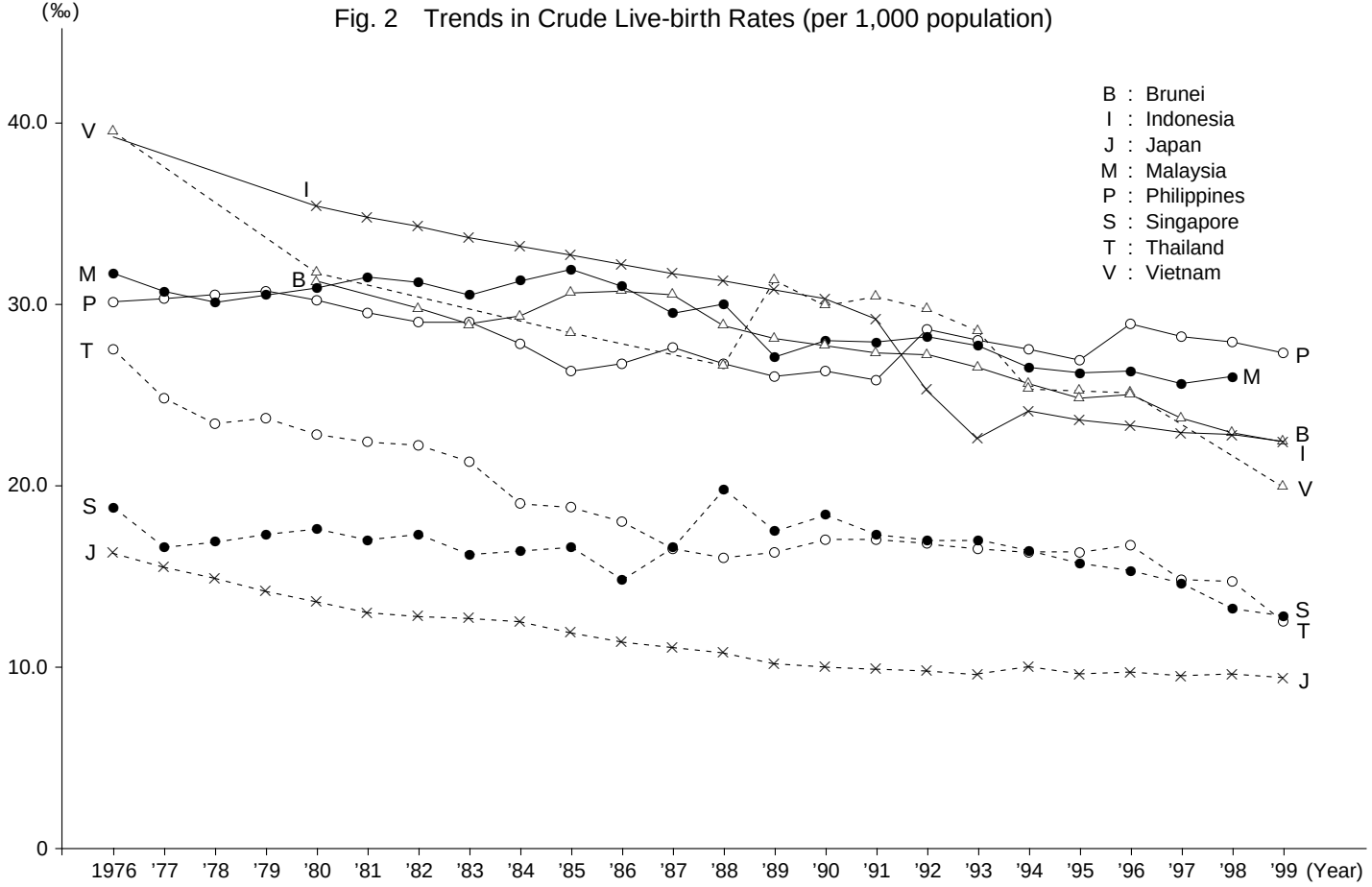
(per 1,000 population)

Year	1970	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI (1)			31.2	30.6	27.7	27.2	26.5	25.6	24.8	25.0	23.7	22.9	22.4
INDONESIA (2)	43.8	40.2	35.4	32.7	30.3	25.3	a) 22.6	a) 24.1	a) 23.6	a) 23.3	b) 22.9	b) c) 22.8	b) 22.4
JAPAN (3)	18.8	17.1	13.6	11.9	10.0	9.8	9.6	10.0	9.6	9.7	9.5	9.6	9.4
MALAYSIA (4)	32.4	30.6	30.9	31.9	28.0	28.2	27.7	26.5	26.2	26.3	25.6	26.0	
PHILIPPINES (5)	27.4	28.8	30.2	26.3	26.3	28.6	28.0	27.5	26.9	28.9	(6) d) 28.2	(6) 27.9	(6) d) 27.3
SINGAPORE (7) e)	22.1	17.7	17.6	16.6	18.4	17.0	17.0	16.4	15.7	15.3	14.6	13.2	12.8
THAILAND (8)	31.5	27.4	22.8	18.8	17.0	16.8	16.5	16.3	16.3	16.7	14.8	14.7	12.5
VIETNAM (9)		f) 39.5	31.7	28.4	29.9	29.7	28.5	25.3	25.2	25.1			19.9

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Central Bureau of Statistics
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) Department of Statistics
(5) ***Philippine Health Statistics,*** Health Intelligence Service, Department of Health
(6) National Statistics Office
(7) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(8) Health Information Center, Ministry of Public Health
(9) General Statistics Office

Note : a) Based on National Census 1990
b) Estimated (Projection 1995–2000 and 2000–2005)
c) Revised figure
d) Based on 1995 Census Based National-Regional Projections
e) Rates from 1980 onwards refer to Singapore residents only
f) For 1976

Fig. 2 Trends in Crude Live-birth Rates (per 1,000 population)



2 – 2 Crude Death Rates

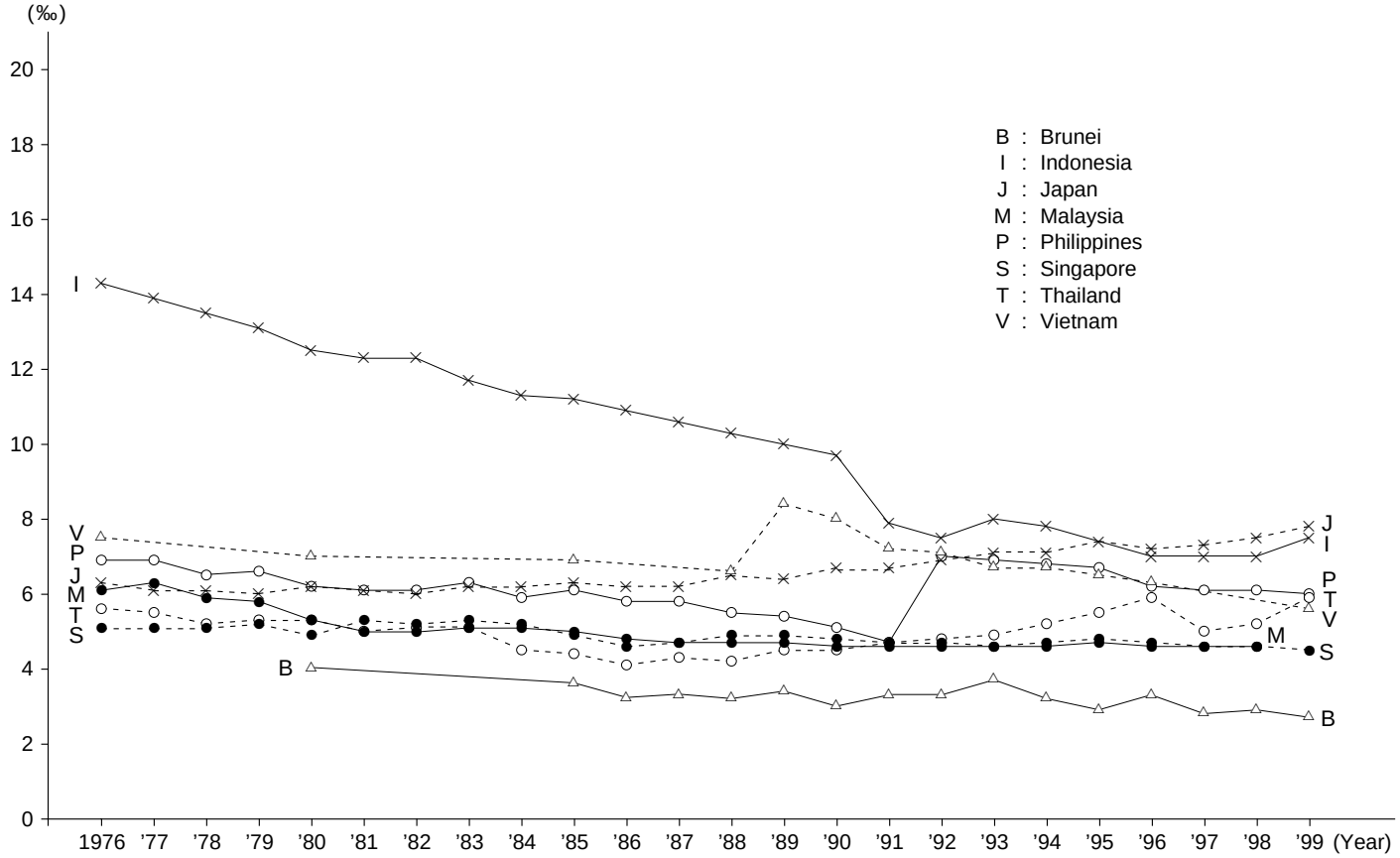
(per 1,000 population)

Year	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI (1)			4.0	3.6	3.0	3.3	3.3	3.7	3.2	2.9	3.3	2.8	2.9	2.7
INDONESIA (2) b)	18.7	16.7	a) 12.5	a) 11.2	a) 9.7	b) 7.9	b) 7.5	b) 8.0	b) 7.8	c) 7.7	a) c) 7.6	a) c) 7.5	a) c) 7.7	c) 7.5
JAPAN` (3)	6.9	6.3	6.2	6.3	6.7	6.7	6.9	7.1	7.1	7.4	7.2	7.3	7.5	7.8
MALAYSIA (4)	7.0	6.3	5.3	5.0	4.6	4.6	4.6	4.6	4.6	4.7	4.6	4.6	4.6	
PHILIPPINES (5)	6.7	6.4	6.2	6.1	5.1	4.7	7.0	6.9	6.8	6.7	6.2	(6) d) 6.1	(6) d) 6.1	(6) d) 6.0
SINGAPORE (7) e)	5.2	5.1	4.9	4.9	4.8	4.7	4.7	4.6	4.7	4.8	4.7	4.6	4.6	4.5
THAILAND (8)	6.2	5.8	5.3	4.4	4.5	4.7	4.8	4.9	5.2	5.5	5.9	5.0	a) 5.2	5.9
VIETNAM (9)		f) 7.5	7.0	6.9	8.0	7.2	7.1	6.7	6.7	6.5	6.3			5.6

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Central Bureau of Statistics
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) Department of Statistics
(5) ***Philippine Health Statistics,*** Health Intelligence Service, Department of Health
(6) National Statistics Office
(7) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(8) Health Information Center, Ministry of Public Health
(9) General Statistics Office

Note : a) Revised figure
b) Based on National Census 1999
c) Estimated (Projection 1995–2000 and 2000–2005)
d) Based on 1995 Census Based National-Regional Projections
e) Rates from 1980 onwards refer to Singapore residents only
f) For 1976

Fig. 3 Trends in Crude Death Rates (per 1,000 population)



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)	1999	a) 5.8	a) 2.2	22.4	85.2	2.7	5.9
INDONESIA (2)	1999	a) 8.4	a) 0.8	22.4	b) c) 2.6	7.5	46
JAPAN (3)	1999	6.1	2.0	9.4	48.0	7.8	3.4
MALAYSIA (4)	1998	7.3	0.8	26.0	100.9	4.6	8.1
PHILIPPINES (5)	1999	d) 14.1	••	27.3	b) 3.5	6.0	(6) e) 19.0
SINGAPORE (7) f)	1999	8.0	1.7	12.8	44.8	4.5	3.3
THAILAND (8) (9)	1998	5.3	g) 1.1	14.7	g) 44.8	g) 5.2	4.5
	1999	6.3	1.3	12.5	38.7	5.9	6.5
VIETNAM (10)	1999			19.9	b) 2.3	5.6	35.5

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Central Bureau of Statistics and Ministry of Home Affairs
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) Department of Statistics
(5) National Statistics Office
(6) ***Philippine Health Statistics,*** National Epidemiology Center, Department of Health
(7) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(8) Health Information Center, Ministry of Public Health
(9) Registration System, Ministry of Interior
(10) General Statistics Office

Note : a) Muslims
b) Total fertility rate
c) Estimated
d) For 1998
e) For 1996
f) Singapore residents only
g) Revised data

2 – 4 Natality, Mortality and Natural Increase

	Year	Natality (live-born)				Mortality				Natural Increase
		Number			(‰)	Number			(‰)	(‰)
		Total	Male	Female		Total	Male	Female		
BRUNEI (1)	1999	7,408	3,879	3,529	22.4	905	515	390	2.7	19.7
INDONESIA (2) a)	1999	b) 4,589,207	2,350,569	2,238,637	22.4	1,537,727	787,616	750,111	7.5	14.9
JAPAN (3)	1999	1,177,669	604,769	572,900	9.4	982,031	534,778	447,253	7.8	1.6
MALAYSIA (4)	1998	554,600	287,200	267,400	26.0	97,906	56,472	41,434	4.6	21.4
PHILIPPINES (5)	1995	c) 1,645,043	864,423	780,620	c) 24.0					
	1996	1,608,468	835,970	772,498	23.0	344,363	204,363	140,000	4.9	18.1
SINGAPORE (6) c)	1999	b) 43,336	22,572	20,763	12.8	d) 15,516	8,608	6,906	4.5	8.3
THAILAND (7)	1999	772,604	398,608	373,996	12.5	362,607	213,432	149,175	5.9	6.6
VIETNAM (8)	1999				19.9					5.6

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Calculated by Centre for Health Data and Information, Ministry of Health, based on Population Projection 1995–2000 and 2000–2005, BPS-Statistics Indonesia
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) Department of Statistics
(5) ***Philippine Health Statistics,*** National Epidemiology Center, Department of Health
(6) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(7) Health Information Division, Ministry of Public Health
(8) Ministry of Health

Note : a) Estimated
b) Includes unknown sex
c) Revised data
d) Singapore residents only

2 – 5 Deaths and Death Rates by Age and Sex

	Year	Sex	All ages		0 – 4		5 – 14		15 – 24		25 – 34	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI (1)	1999	T	905	273.7	58	150.3	20	29.0	30	51.7	56	89.6
		M	515	293.9	33	165.0	11	30.7	18	60.0	45	134.3
		F	390	250.8	25	134.4	9	27.1	12	42.9	11	37.9
INDONESIA (2) b)	1999	T	1,488,858	717.7	287,088	1,339.1	41,565	102.1	76,527	177.0	81,328	245.4
		M	814,729	789.2	163,192	1,495.5	23,540	113.3	44,249	203.6	41,842	265.9
		F	674,129	646.9	123,895	1,176.9	18,025	90.5	32,278	150.1	39,486	226.8
JAPAN (3)	1998	T	936,484	747.7	6,088	103.0	1,861	14.3	7,415	43.9	10,412	58.4
		M	512,128	835.3	3,321	109.6	1,139	17.1	5,306	61.3	7,032	77.7
		F	424,356	663.7	2,767	96.0	722	11.4	2,109	25.6	3,380	38.5
	1999	T	982,031	782.9	5,567	94.5	1,662	13.1	6,977	42.7	10,765	59.2
		M	534,778	871.6	3,109	103.0	987	15.2	4,960	59.2	7,307	116.5
		F	447,253	698.0	2,458	85.6	675	10.9	2,017	25.3	3,458	38.6
MALAYSIA (4)	1998	T	97,906	441.4	5,902	229.1	1,913	38.5	4,324	99.9	4,999	137.3
		M	56,472	497.5	3,301	248.6	1,133	44.3	3,348	149.2	3,726	198.6
		F	41,434	382.7	2,601	208.4	780	32.3	976	89.7	1,273	72.1
PHILIPPINES (5)	1996	T	344,363	492.3	46,068	485.2	12,314	72.7	15,459	111.3	21,705	201.0
		M	204,363	579.7	26,335	537.7	7,091	82.0	10,440	149.6	15,193	280.8
		F	140,000	403.4	19,733	429.2	5,223	62.9	5,019	72.7	6,512	120.9
SINGAPORE (6) c)	1999	T	15,516 d)	450.4	200 d)	73.1	80	14.7	245	39.1	467	51.2
		M	8,608	490.8	106	72.7	44	16.0	163	52.0	326	65.9
		F	6,906	409.3	93	72.7	36	13.3	82	25.8	141	37.0
THAILAND (7)	1999	T	362,607	588.9	10,951	208.0	5,202	47.8	18,233	159.1	46,037	428.8
		M	213,432	697.0	5,958	224.5	3,104	56.6	13,054	224.5	34,256	629.8
		F	149,175	481.9	4,993	191.3	2,098	38.9	5,179	91.7	11,781	222.4
VIETNAM (8)	1989	T	252,486	398.5	65,128	722.8	16,430	102.0	11,669	95.0	10,167	101.1
		M	141,070	463.3	36,091	776.8	8,791	106.2	6,880	118.9	6,263	133.9
		F	111,416	338.5	29,037	665.4	7,639	97.6	4,789	73.7	3,904	72.6

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Calculated by Center for Health Data and Information, Ministry of Health, using Model Life Table for Developing Countries 1982, the United Nations
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) Department of Statistics
(5) ***Philippine Health Statistics,*** Health Intelligence Service, Department of Health
(6) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(7) Health Information Division, Ministry of Public Health
(8) General Statistical Office

(rate per 100,000 population)

35 – 44		45 – 54		55 – 64		65 – 74		75 & over		Unknown	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
71	136.8	80	303.0	115	877.9	193	2,797.1	282	6,558.1		
49	169.6	40	274.0	62	898.6	109	5,676.5	148	7,047.6		
22	95.7	40	339.0	53	854.8	84	2,400.0	134	6,090.9		
108,167	381.1	141,944	768.1	216,567	1,764.2	299,553	4,212.8	236,120	8,847.4		
58,970	419.1	84,124	881.7	124,364	2,071.6	158,369	4,855.3	116,079	9,700.0		
49,197	343.7	57,820	646.8	92,203	1,470.0	141,184	3,668.3	120,041	8,154.4		
18,043	115.6	57,059	293.9	108,506	671.2	202,521	1,642.4	523,815	6,460.5	764	
11,836	150.4	38,171	394.0	74,936	950.5	134,020	2,367.0	235,706	8,349.5	661	
6,207	80.2	18,888	194.2	33,570	405.3	68,501	1,027.3	288,109	5,451.4	103	
17,921	115.2	56,672	295.8	110,197	669.9	209,893	1,659.8	561,582	6,630.3	795	
11,912	151.9	38,189	399.3	75,769	944.8	139,396	2,390.6	252,447	8,545.9	702	
6,009	77.8	18,483	192.6	34,428	408.5	70,497	1,034.4	309,135	5,604.3	93	
6,800	234.7	9,321	506.5	15,335	1,402.5	21,295	3,688.7	27,665	10,973.8	352	
4,726	319.3	6,015	637.0	9,302	1,704.3	11,629	4,335.9	13,026	12,151.1	266	
2,074	146.3	3,306	369.0	6,033	1,101.7	9,666	3,127.1	14,639	10,102.8	86	
27,055	344.9	33,914	648.8	46,070	1,435.9	53,648	2,998.6	87,555	11,402.2	575	
18,502	468.3	23,129	881.6	30,169	1,915.3	31,800	3,812.2	41,331	12,238.0	373	
8,553	219.7	10,785	414.2	15,901	973.5	21,848	2,287.9	46,224	10,746.0	202	
797	108.9	1,330	287.9	2,239	911.8	3,721	2,460.2	6,399	6,905.0	38 [d]	
514	135.1	830	348.6	1,441	1,187.6	2,231	3,115.2	2,918	7,544.2	35	
283	81.9	500	225.2	798	643.5	1,490	1,876.6	3,481	6,448.3	2	
39,625	437.8	37,150	585.4	48,999	1,127.8	63,617	2,591.9	89,558	8,645.0	3,235	
28,506	635.0	23,798	767.8	29,129	1,411.2	34,765	3,062.8	39,449	8,978.0	1,413	
11,119	243.7	13,352	411.3	19,870	871.3	28,852	2,186.7	50,109	8,399.7	1,822	
9,788	180.0	14,910	384.4	28,936	819.3	38,700	1,894.3	56,758	5,559.1		
6,219	249.9	9,288	539.7	18,046	1,109.2	22,769	2,638.4	26,723	7,964.5		
3,569	121.1	5,622	260.6	10,890	571.7	15,931	1,347.8	30,035	4,530.2		

Note : a) Including 1 intersex
b) Based on a 10-day sample of discharges from hospital for each quarter
c) The number of deaths includes non-residents. Death rates are computed based on the number of resident deaths over resident population.
d) Includes unkown sex

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

	Year	Sex	Age								
			0	1	2	3	4	5	10	15	20
BRUNEI (1)	1994–1996	M	75.3	75.0				71.2	66.3	61.4	56.8
		F	77.7	77.3				73.4	68.5	63.6	58.7
INDONESIA (2)	1999	M	64.6	66.8				64.2	59.8	55.2	50.8
		F	68.3	69.9				67.2	62.7	58.1	53.5
JAPAN (3)	1999	M	77.1	76.4	75.4	74.5	73.5	72.5	67.6	62.6	57.7
		F	84.0	83.3	82.3	81.3	80.3	79.4	74.4	69.4	64.5
MALAYSIA (4)	1998	M	69.8	69.5				65.7	60.8	55.9	51.3
		F	74.7	74.3				70.5	65.6	60.7	55.9
PHILIPPINES (5)	1995	M	62.7	65.2	64.9	64.0	63.2	62.5	57.6	53.1	48.5
		F	67.9	70.3	70.0	69.3	68.6	67.9	63.3	58.6	53.9
SINGAPORE (6)	1998	M	75.4	74.7				70.8	65.8	60.9	56.0
		F	79.5	78.8				74.8	69.9	64.9	60.0
THAILAND (7)	1995–1996	M	70.0	71.1				67.5	62.9	58.2	53.7
		F	75.0	76.1				72.4	67.7	62.9	58.4
VIETNAM (8)	1989	M	63.0	65.0	64.4	63.8	63.1	62.3	58.0	53.5	49.0
		F	67.5	69.5	69.2	68.7	68.0	67.3	63.2	58.7	54.1

Source : (1) Medical and Health Statistics Unit, Research and Development Section, Ministry of Health
(2) Calculated by Centre for Health Data, using ***Model Life Table for Developing Countries 1982,*** the United Nations
(3) ***Abridged Life Table for Japan,*** Ministry of Health and Welfare
(4) ***Abridged Life Table,*** Department of Statistics
(5) University of the Philippines Population Institute
(6) ***Abridged Life Table,*** Ministry of Health
(7) National Statistics Office
(8) ***Detailed Analysis of Sample Survey,*** General Statistics Office

Age														
25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
52.3 53.8	47.8 49.0	43.2 44.1	38.6 39.3	34.1 34.6	29.6 29.9	25.3 25.5	21.4 21.7	18.1 18.2	15.4 14.8	13.6 12.4	13.0 10.7	11.7 10.0		
46.5 49.0	42.3 44.5	38.0 40.1	33.7 35.6	29.4 31.3	25.3 27.0	21.4 22.5	17.6 18.8	14.1 15.1	11.0 11.7	8.3 8.8	6.1 6.4	4.3 4.5	2.9 3.1	2.0 2.0
52.9 59.6	48.1 54.7	43.3 49.8	38.6 44.9	33.9 40.2	29.4 35.4	25.0 30.8	20.9 26.3	17.0 21.9	13.5 17.7	10.3 13.7	7.5 10.2	5.4 7.3	3.8 5.1	2.6 3.6
46.7 51.0	42.1 46.1	37.6 41.3	33.0 36.6	28.6 31.8	24.2 27.3	20.2 22.9	16.4 18.8	13.0 15.0	10.1 11.6	7.6 8.7	5.5 6.3			
44.1 49.2	39.8 44.6	35.7 40.1	31.5 35.7	27.5 31.3	23.7 27.1	20.1 23.0	16.8 19.0	13.7 15.4	10.9 12.0	8.4 9.0	6.3 6.7	4.7 4.9	3.4 3.6	2.5 2.6
51.2 55.1	46.3 50.1	41.5 45.3	36.7 40.4	32.0 35.6	27.4 30.9	23.0 26.3	19.0 21.9	15.4 17.9	12.3 14.1	9.5 10.7	7.0 7.6	4.4 4.6		
49.3 53.9	45.0 49.5	40.7 45.0	36.4 40.5	32.1 36.1	27.9 31.7	23.9 27.6	20.3 23.9	17.1 20.2	14.2 16.9	11.9 14.6	10.9 13.6			
44.6 49.6	40.0 45.0	35.5 40.4	31.2 35.8	27.0 31.4	23.1 27.0	19.3 22.9	15.6 19.0	12.5 15.3	9.6 11.9	7.3 9.0	5.8 6.4	4.2 4.4	3.1 3.0	

Fig. 4 Trends in Expectation of Life at Birth (Male)

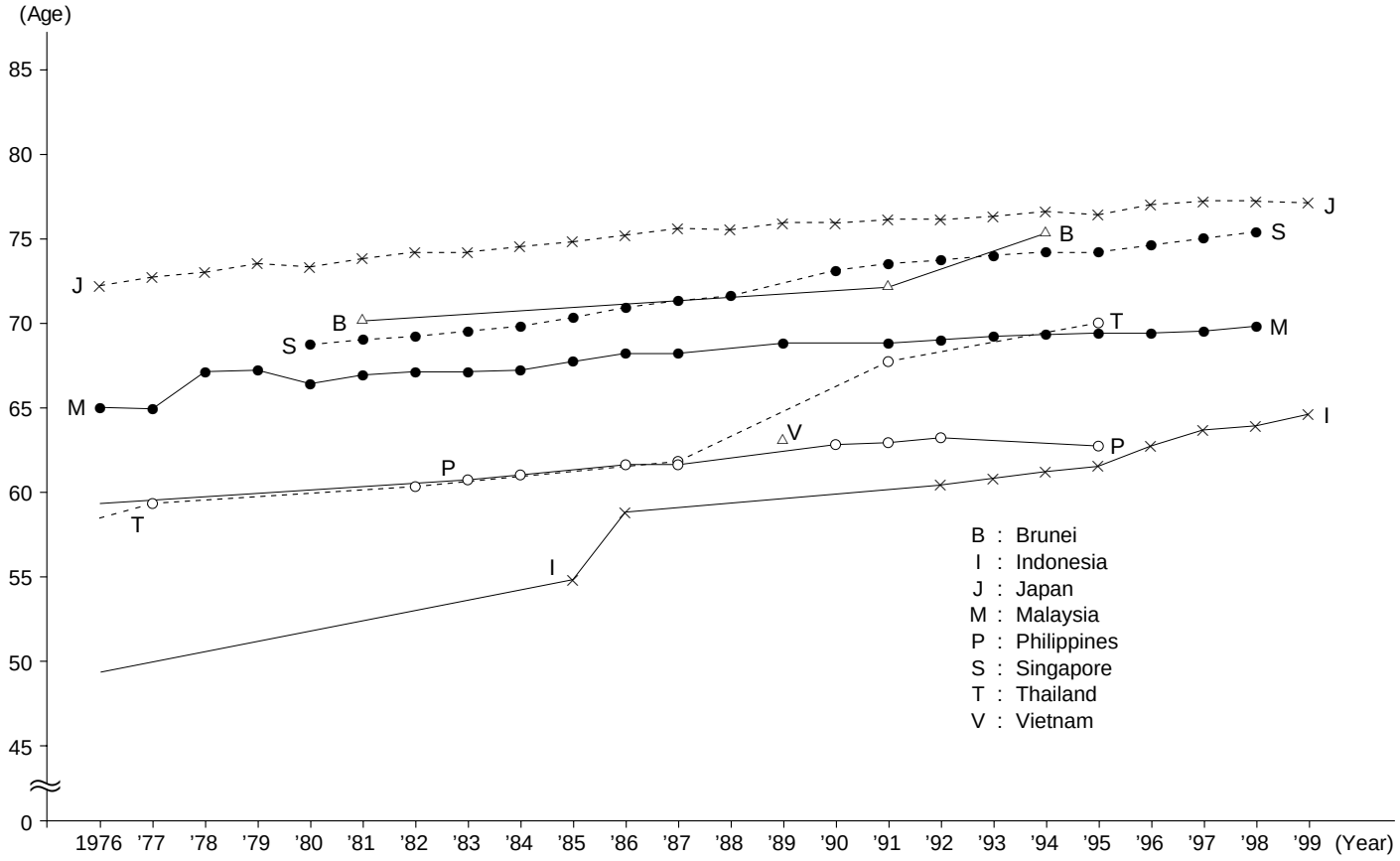
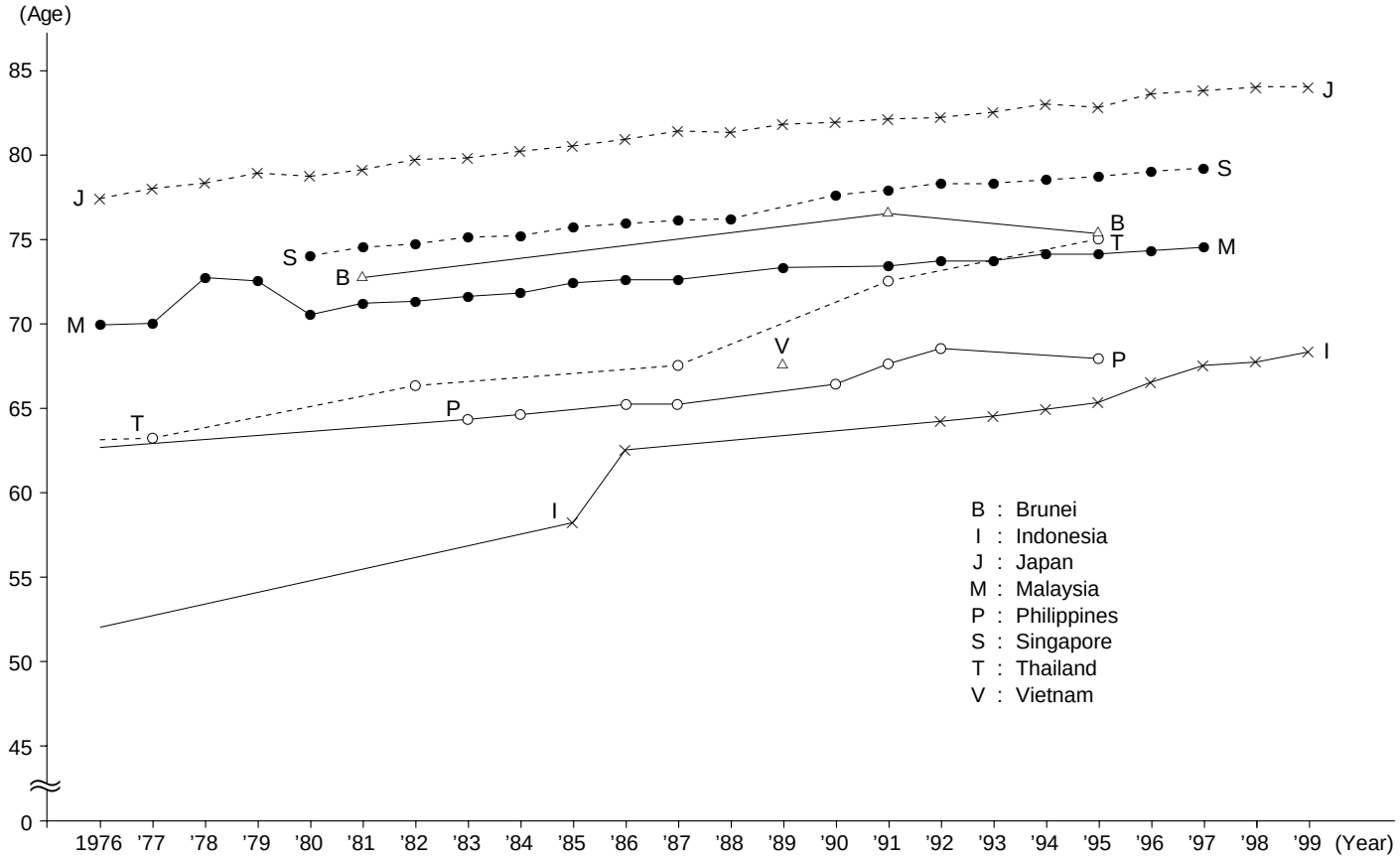


Fig. 4 Trends in Expectation of Life at Birth (Female)



2 – 7 Survivors at Specified Ages for Each Sex

	Year	Sex	Age							
			0	1	5	10	15	20	25	30
BRUNEI (1)	1994–1996	M	100,000	99,141	98,901	98,759	98,525	97,922	97,021	96,097
		F	100,000	99,235	99,065	98,943	98,838	98,675	98,451	98,164
INDONESIA (2)	1999	M	100,000	95,315	93,332	92,365	91,758	90,762	89,330	87,881
		F	100,000	96,190	94,422	93,660	93,144	92,455	91,544	90,507
JAPAN (3)	1999	M	100,000	99,634	99,487	99,412	99,336	99,099	98,765	98,406
		F	100,000	99,689	99,571	99,516	99,464	99,361	99,218	99,053
MALAYSIA (4)	1998	M	100,000	99,020	98,726	98,529	98,286	97,627	96,787	95,910
		F	100,000	99,209	98,946	98,795	98,633	98,418	98,159	97,858
PHILIPPINES (5)	1995	M	100,000	94,677	92,781	92,217	91,766	91,044	89,854	88,295
		F	100,000	95,158	93,042	92,509	92,112	91,625	90,995	90,166
SINGAPORE (6)	1998	M	100,000	99,641	99,526	99,458	99,355	99,167	98,826	98,532
		F	100,000	99,674	99,589	99,541	99,464	99,341	99,206	99,039
THAILAND (7)	1995–1996	M	100,000	97,060	96,455	95,932	95,455	94,585	93,462	92,143
		F	100,000	97,316	96,881	96,476	96,158	95,413	94,503	93,520
VIETNAM (8)	1989	M	100,000	95,537	93,523	92,491	91,736	90,882	89,712	88,687
		F	100,000	95,612	93,160	91,929	91,164	90,519	89,654	88,998

Source : (1) Medical and Health Statistics Unit, Research and Development Section, Ministry of Health
(2) Calculated by Centre for Health Data, using ***Model Life Table for Developing Countries 1982,*** United Nations
(3) ***Abridged Life Table,*** Ministry of Health and Welfare
(4) ***Abridged Life Table,*** Department of Statistics
(5) University of the Philippines Population Institute
(6) ***Abridged Life Table,*** Ministry of Health
(7) National Statistical Office
(8) ***Detailed Analysis of Sample Survey,*** General Statistics Office

Age												
35	40	45	50	55	60	65	70	75	80	85	90	95
95,185 97,834	94,257 97,297	93,111 96,672	91,653 95,692	89,160 93,557	85,076 89,147	78,082 82,530	68,188 74,832	54,397 61,714	39,092 46,350	28,894 30,579		
86,345 89,357	84,656 88,039	82,622 86,327	80,092 84,284	76,447 81,401	71,826 77,660	65,188 72,083	55,992 63,715	43,697 51,802	29,649 36,644	15,669 20,597	5,564 7,904	1,036 1,608
97,972 98,830	97,386 98,533	96,498 98,065	95,037 97,321	92,692 96,193	89,240 94,606	84,122 92,279	76,332 88,653	65,462 82,918	50,611 73,094	32,281 57,278	15,030 35,884	4,354 15,510
94,861 97,447	93,564 96,865	91,908 95,996	89,640 94,622	85,989 92,386	80,420 88,602	71,999 82,443	60,323 72,841	45,296 59,329	28,576 41,630			
86,429 89,134	84,214 87,807	81,392 86,167	77,620 84,012	72,854 81,010	66,542 76,933	58,682 71,135	48,983 63,189	37,600 51,728	25,278 36,767	13,364 20,652	5,213 8,652	1,236 2,241
98,147 98,815	97,627 98,496	96,772 97,978	95,495 97,086	93,137 95,629	89,042 93,214	81,896 88,988	71,554 82,153	58,342 72,528	43,122 58,691	27,808 42,178		
90,643 92,431	89,067 91,293	87,194 89,907	84,805 88,340	81,704 85,699	76,630 81,567	69,399 76,853	60,945 70,157	49,507 59,025	34,625 44,350			
87,519 88,187	85,637 87,240	83,452 85,704	79,779 83,813	75,554 80,825	69,953 76,573	61,123 70,910	50,508 63,335	36,169 51,350	21,287 37,386	10,624 21,343		

Fig. 5 Survivors at Specified Ages for Each Sex (1) Brunei, 1994～1996

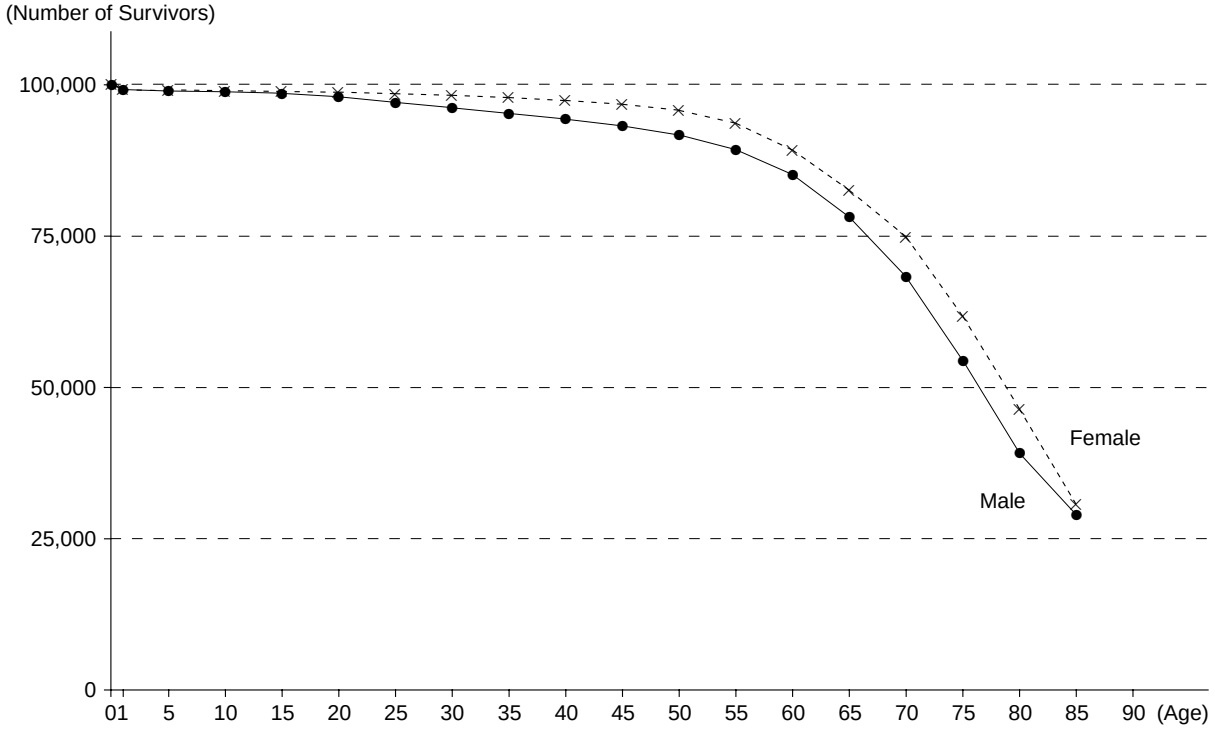


Fig. 5 Survivors at Specified Ages for Each Sex (2) Indonesia, 1999

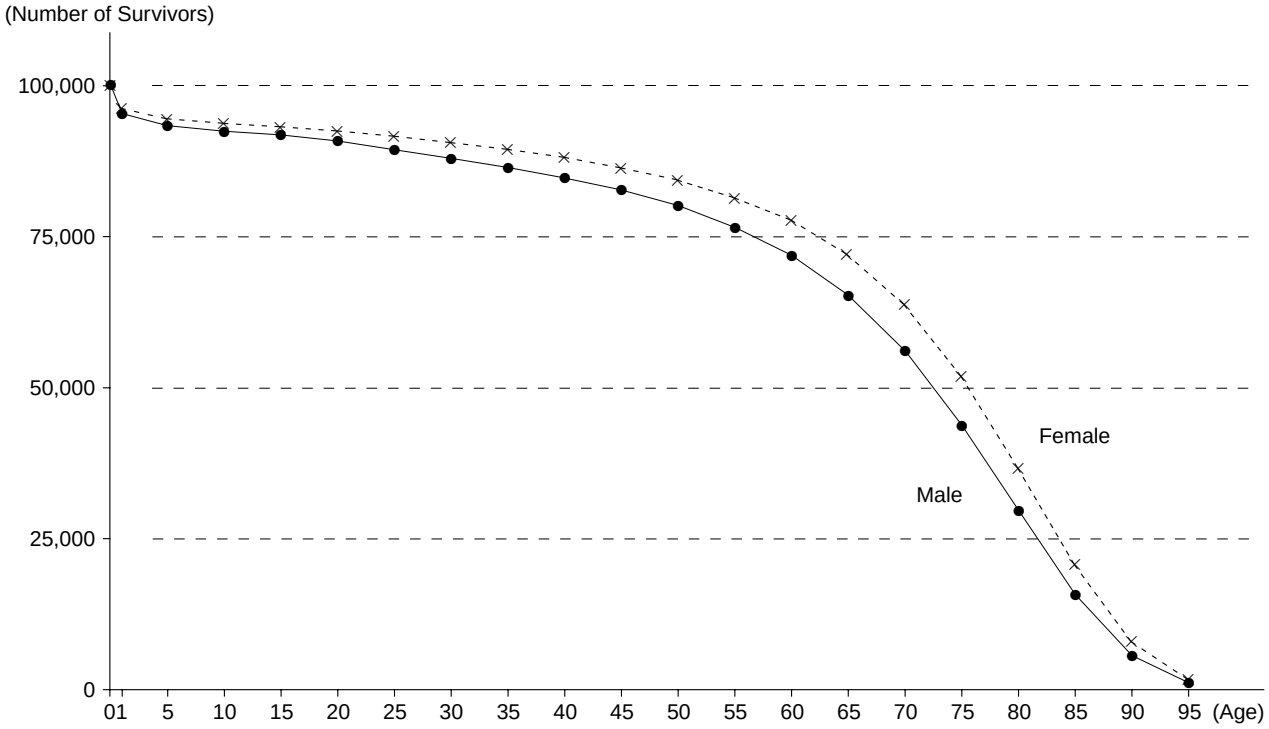


Fig. 5 Survivors at Specified Ages for Each Sex (3) Japan, 1999

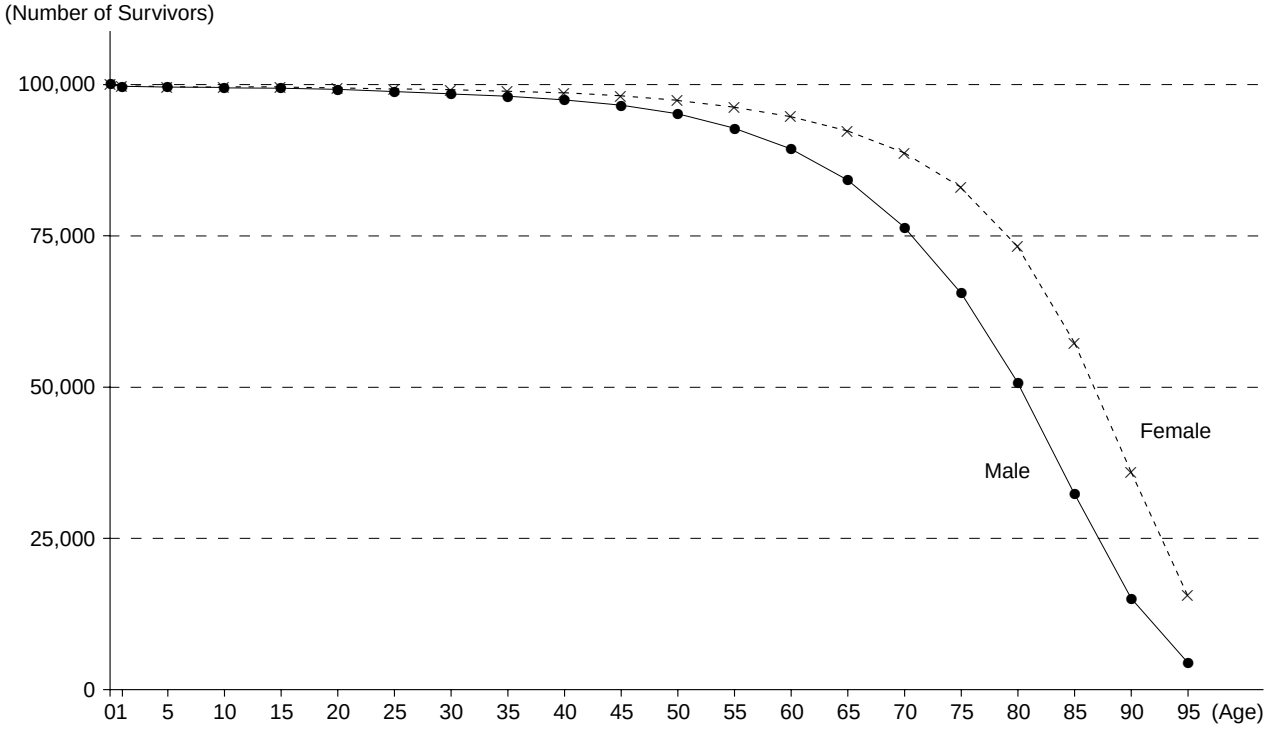


Fig. 5 Survivors at Specified Ages for Each Sex (4) Malaysia, 1998

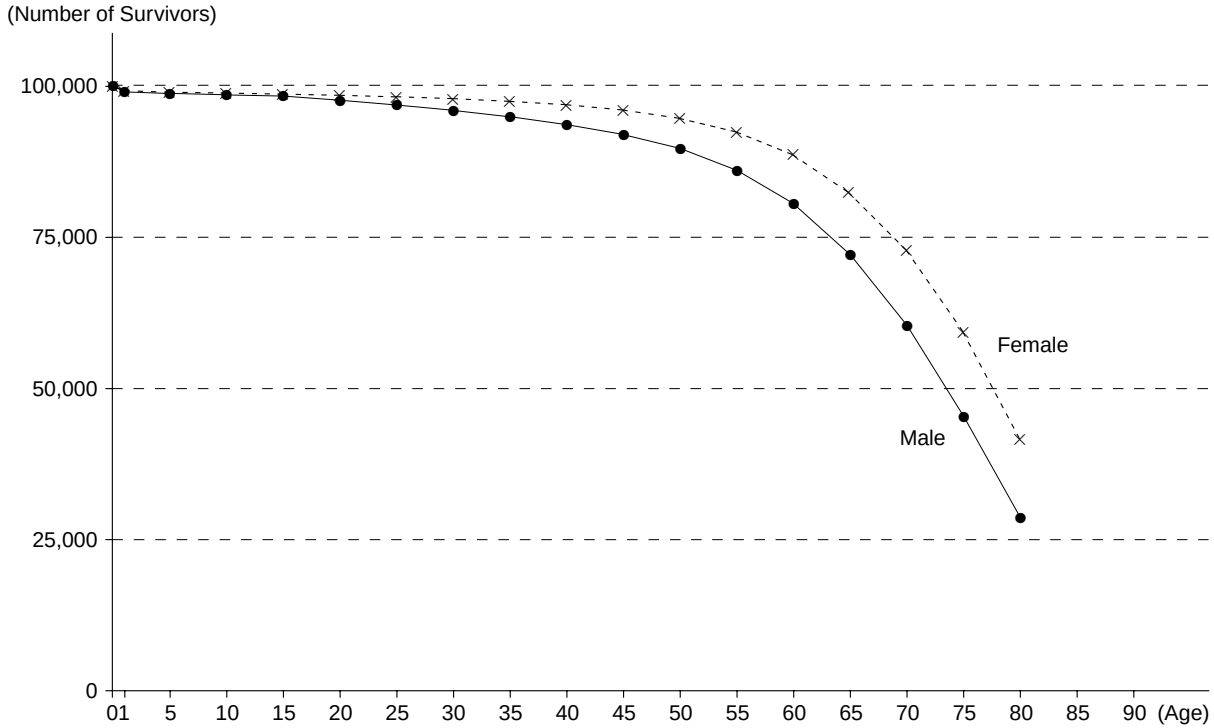


Fig. 5 Survivors at Specified Ages for Each Sex (5) Philippines, 1995

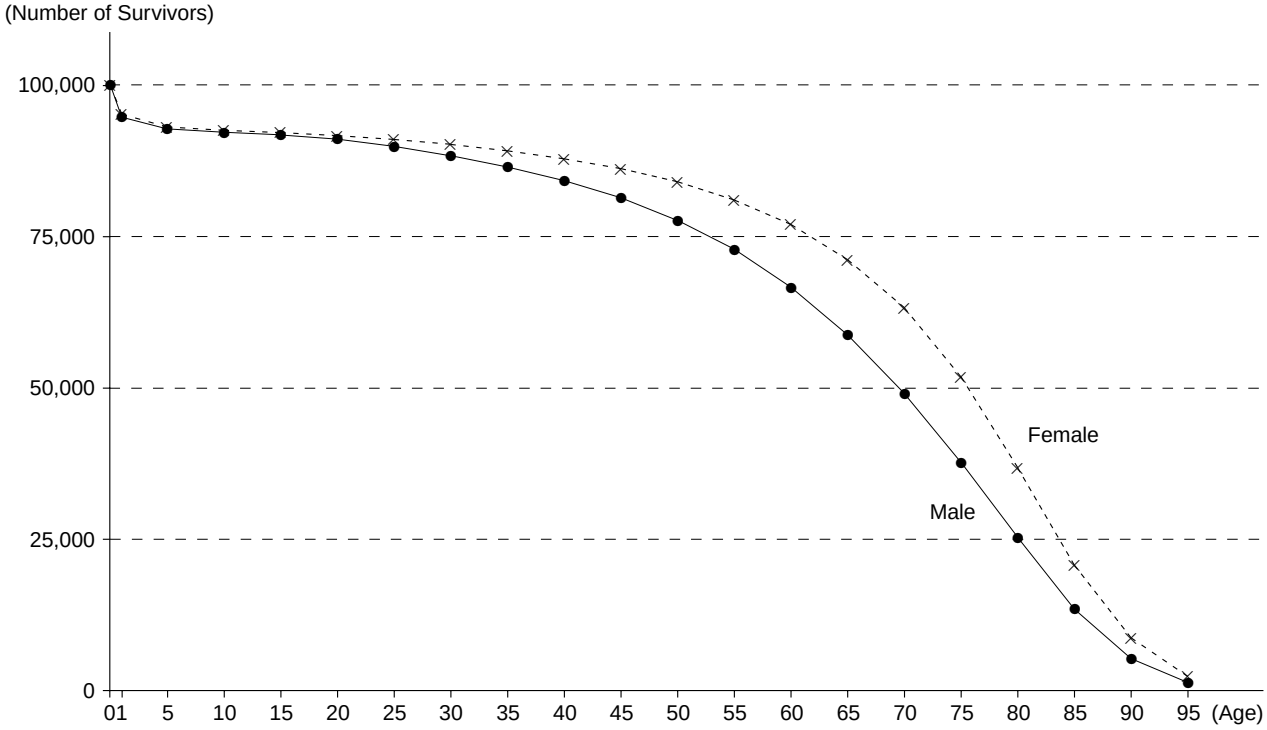


Fig. 5 Survivors at Specified Ages for Each Sex (6) Singapore, 1998

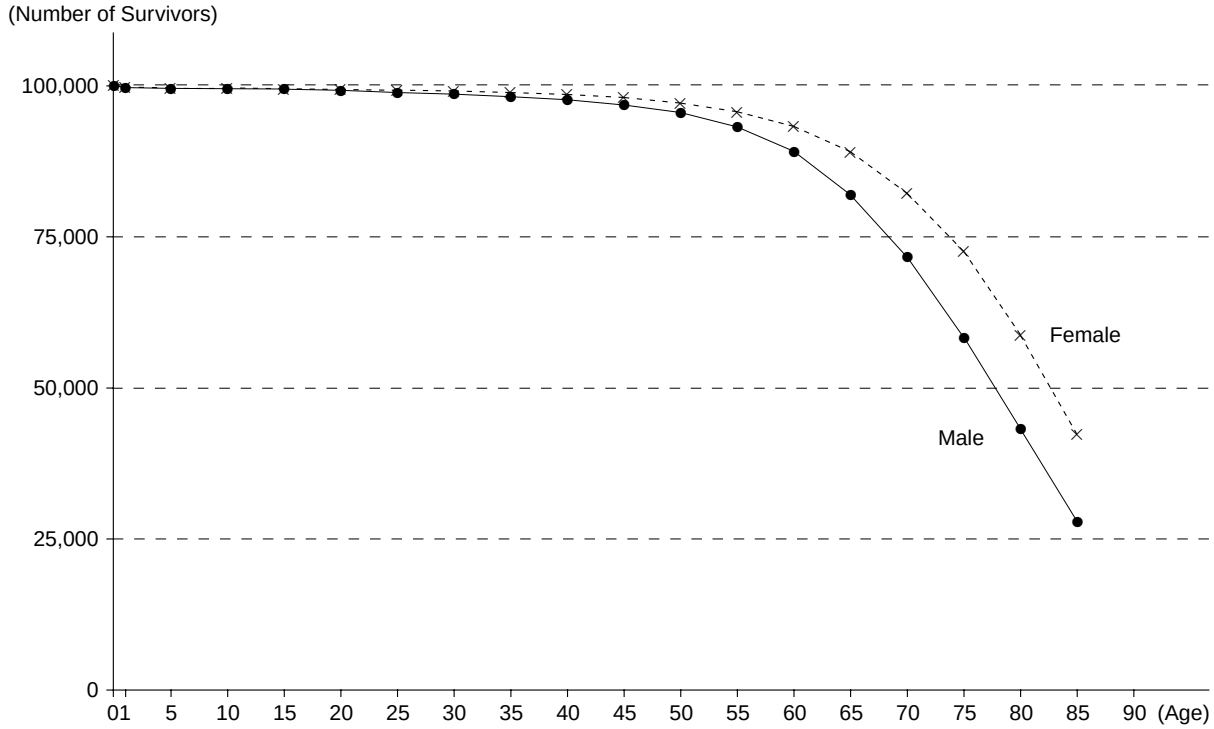


Fig. 5 Survivors at Specified Ages for Each Sex (7) Thailand, 1995～1996

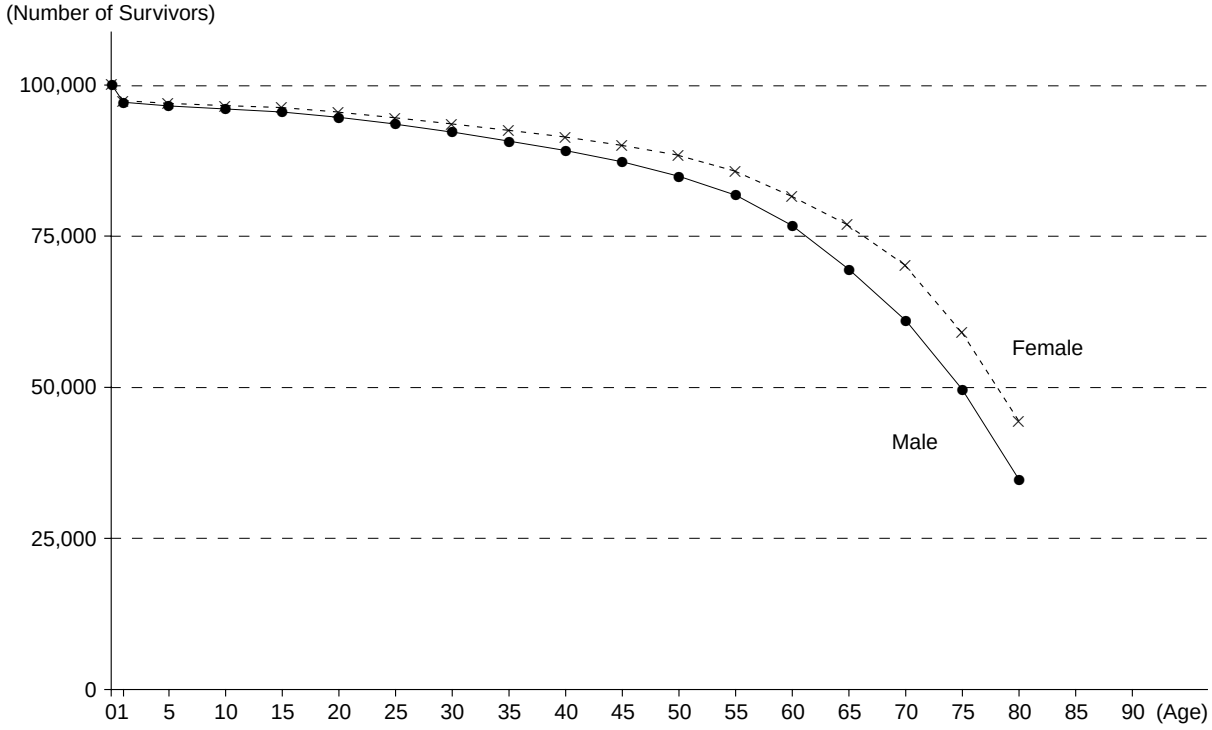
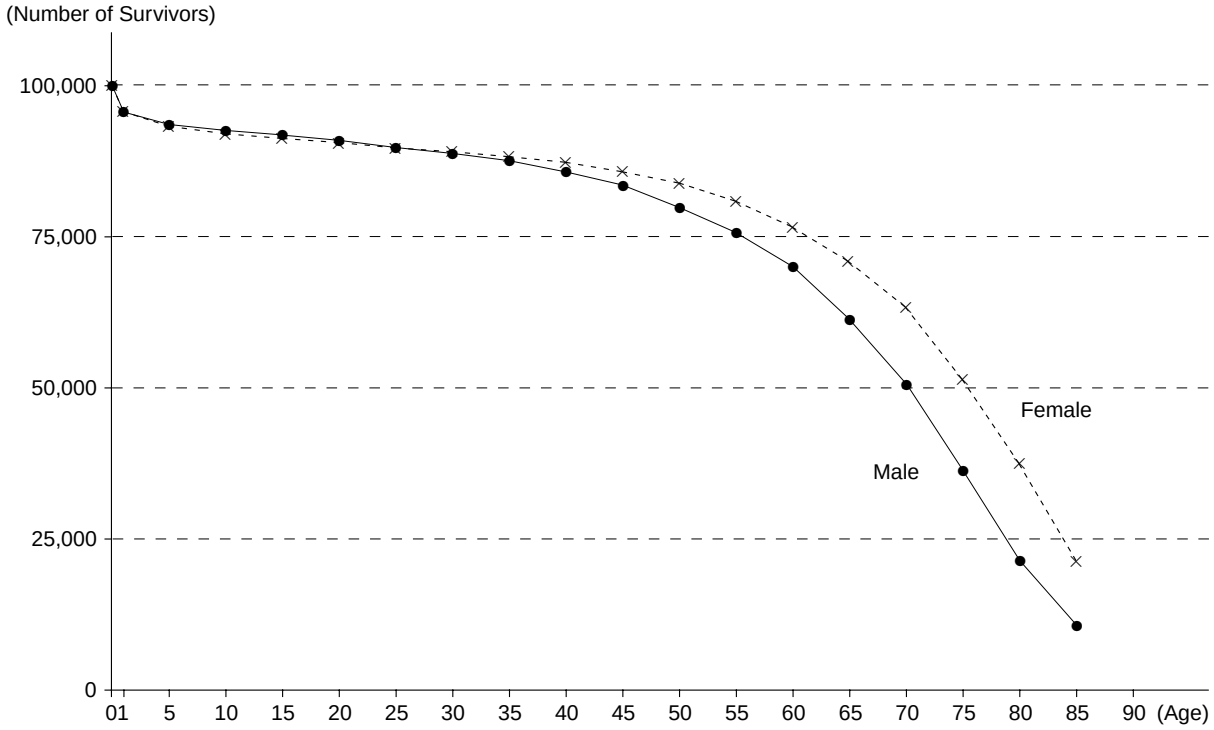


Fig. 5 Survivors at Specified Ages for Each Sex (8) Vietnam, 1989



3. Causes of Death

3 – A Classification List Used for Ranking Causes of Death in Tables 3 – 1 and 3 – 2

ICD – 9*	ICD – 10†	Disease groups
01	A00 – A09	Intestinal infectious diseases
02	A15 – A19	Tuberculosis
033	A36	Diphtheria
034	A37	Whooping cough
036	A39	Meningococcal infection
037, 771.3**	A33 – A35	Tetanus
038	A40, A41	Septicemia
040	A80	Acute poliomyelitis
042	B05	Measles
046	B15 – B19	Viral hepatitis
047	A82	Rabies
279.5**	B20 – B24	AIDS (HIV)
061***	A90	Dengue
065.4**	A91	Dengue hemorrhagic fever
052	B50 – B54	Malaria
06	A50 – A64	Venereal diseases
08 – 14	C00 – C97	Malignant neoplasms
15 – 17	D00 – D48	Benign neoplasms, carcinoma in situ, other and unspecified neoplasms
181	E10 – E14	Diabetes mellitus
19	E40 – E64	Nutritional deficiencies
200	D50 – D64	Anemias
21	F00 – F99	Mental disorders
220	G00 – G09	Meningitis
26	I10 – I15	Hypertensive diseases
25, 27, 28	I00 – I09, I20 – I25, I30 – I52	Heart diseases
29	I60 – I69	Cerebrovascular diseases
300	I70	Atherosclerosis
310 – 312	J00 – J06	Acute upper respiratory infection
320	J20, J21	Acute bronchitis and bronchiolitis
321, 322	J10 – J18	Influenza and pneumonia
323	J40 – J46	Bronchitis, chronic and unspecified, emphysema and asthma
341	K25 – K27	Ulcer of stomach and duodenum
347	K73, K74	Chronic liver diseases and cirrhosis
350	N00 – N19	Nephritis, nephrotic syndrome and nephrosis
38	O00 – O08	Abortion
40, 41	O80, O98 – O99	Indirect obstetric causes
42	L00 – L99	Diseases of skin and subcutaneous tissue
43	M00 – M99	Diseases of musculoskeletal system and connective tissue
44	Q00 – Q99	Congenital anomalies
45	P00 – P96	Certain conditions originating in the perinatal period
E47	V01 – V99	Transport accidents
E48	X40 – X49	Accidental poisoning
E50	W00 – W19	Accidental falls
E51	X00 – X09	Accidents caused by fire and flames
E521	W65 – W79	Accidental drowning and submersion
E53	Y40 – Y84	Drugs, medicaments causing adverse effects in therapeutic use
E54	X60 – X84	Suicide and self-inflicted injuries
E55	X85 – Y09	Homicide and injuries purposely inflicted by other persons

* Categories of the Basic Tabulation List
** 4-digit category
*** 3-digit category
† 3-character codes

3 – 1 Ten Leading Causes of Death (Percentage of All Deaths with Specific Diagnosis)

	Year	1	2	3	4	5
BRUNEI (1)	1999	Malignant Neoplasms (19.2%)	Heart Diseases (18.1%)	Diabetes Mellitus (8.9%)	Cerebrovascular Diseases (8.8%)	Bronchitis, Emphysema & Asthma (7.7%)
INDONESIA (2)	1998	Certain Conditions Originating in the Perinatal Period (22.1%)	Heart Diseases (9.2%)	Influenza and Pneumonia (7.8%)	Tuberculosis (6.3%)	Meningitis (5.0%)
JAPAN (3)	1998	Malignant Neoplasms (31.2%)	Heart Diseases (15.7%)	Cerebrovascular Diseases (15.1%)	Influenza and Pneumonia (8.8%)	Suicide and Self-inflicted Injury (3.5%)
	1999	Malignant Neoplasms (30.4%)	Heart Diseases (15.8%)	Cerebrovascular Diseases (14.6%)	Influenza and Pneumonia (10.0%)	Suicide and Self-inflicted Injury (3.3%)
MALAYSIA (4) b)	1998	Heart Diseases (19.5%)	Malignant Neoplasms (10.9%)	Cerebrovascular Diseases (8.2%)	Septicemia (7.1%)	Transport Accidents (6.4%)
PHILIPPINES (5)	1995	Heart Diseases (14.8%)	Influenza and Pneumonia (11.1%)	Malignant Neoplasms (9.2%)	Tuberculosis (8.8%)	Hypertensive Diseases (6.9%)
SINGAPORE (6)	1999	Malignant Neoplasms (26.8%)	Heart Diseases (24.0%)	Influenza and Pneumonia (10.6%)	Cerebrovascular Diseases (10.6%)	Hypertensive Diseases (2.3%)
THAILAND (7)	1999	Malignant Neoplasms (16.9%)	Heart Diseases (14.5%)	Transport Accidents (5.5%)	Influenza and Pneumonia (4.1%)	Septicemia (3.6%)
VIETNAM (8) b)	1996	Certain Conditions Originating in the Perinatal Period (11.3%)	Heart Diseases (7.7%)	Tuberculosis (5.8%)	Influenza and Pneumonia (5.8%)	Transport Accidents (3.4%)

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs
(2) Directorate General of Medical Care, Ministry of Health
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) Information and Documentation System Unit, Ministry of Health
(5) ***Philippine Health Statistics,*** National Epidemiology Center, Department of Health
(6) Registry of Births and Deaths
(7) Health Information Center, Bureau of Health Policy and Plan, Ministry of Public Health
(8) ***Health Statistics Yearbook,*** Statistics and Informatic Division, Ministry of Health

6	7	8	9	10	Conditions excluded from the denominator [a] (% of all deaths)
Transport Accidents (6.0%)	Hypertensive Diseases (3.3%)	Influenza and Pneumonia (3.2%)	Certain Conditions Originating in the Perinatal Period (2.9%)	Congenital Anomalies (2.9%)	9.0
Transport Accidents (4.5%)	Bronchitis, Emphysema & Asthma (3.6%)	Septicemia (3.4%)	Malignant Neoplasms (3.4%)	Intestinal Infectious Diseases (2.9%)	39.2
Nephritis, Nephrotic Syndrome & Nephrosis (2.5%)	Bronchitis, Emphysema & Asthma (2.0%)	Transport Accidents (1.5%)	Diabetes Mellitus (1.4%)	Chronic Liver Diseases & Cirrhosis of Liver (1.2%)	2.7
Nephritis, Nephrotic Syndrome & Nephrosis (2.1%)	Bronchitis, Emphysema & Asthma (2.1%)	Transport Accidents (1.4%)	Diabetes Mellitus (1.3%)	Chronic Liver Diseases & Cirrhosis of Liver (1.1%)	2.8
Certain Conditions Originating in the Perinatal Period (4.9%)	Influenza and Pneumonia (4.5%)	Congenital Anomalies (2.5%)	Nephritis, Nephrotic Syndrome & Nephrosis (2.5%)	Diabetes Mellitus (1.8%)	5.2
Celebrovascular Deseases (6.3%)	Certain Conditions Originating in the Perinatal Period (4.6%)	Homicide and Injuries Inflicted by Other Person (3.8%)	Bronchitis, Emphysema and Asthma (3.7%)	Nephritis, Nephrotic Syndrome & Nephrosis (2.3%)	5.7
Diabetes Mellitus (2.3%)	Suicide and Self-inflicted Injuries (2.0%)	Transport Accidents (1.4%)	Nephritis, Nephrotic Syndrome & Nephrosis (1.2%)	Chronic Liver Diseases & Cirrhosis of Liver (1.0%)	0.4
Diabetes Mellitus (3.3%)	Cerebrovascular Diseases (3.1%)	HIV Infection (3.0%)	Nephritis, Nephrotic Syndrome & Nephrosis (2.9%)	Suicide and Self-inflicted Injuries (2.5%)	41.6
Intestinal Infectious Diseases (3.3%)	Hypertensive Diseases (3.2%)	Malignant Neoplasms (2.5%)	Chronic Liver Diseases & Cirrhosis of Liver (2.1%)	Homicide and Injuries Inflicted by Other Person (1.5%)	2.6

Note : a) 465 (ICD-9) / R54 (ICD-10): Senility without Mention of Psychosis and 460–464, 466, 467, 469 (ICD-9) / Rest of R00–R99 (ICD-10): Signs, Symptoms and Other Ill-defined Conditions
b) Government hospital-based figures

[Brunei Darussalam]

3 – 2 Trends in the Leading Causes of Death

Order	Year	1988	1989	1992	1993	1995	1996	1997	1998	1999
No. 1	Cause of Death	Malignant Neoplasms	Heart Diseases					Malignant Neoplasms	Heart Diseases	Malignant Neoplasms
	Percentage of All Deaths	19.5	19.0	22.5	17.4	16.0	18.0	17.4	19.6	19.2
No. 2	Cause of Death	Heart Diseases	Malignant Neoplasms					Heart Diseases	Malignant Neoplasms	Heart Diseases
	Percentage of All Deaths	16.2	12.8	15.4	15.6	15.9	14.7	16.6	16.7	18.1
No. 3	Cause of Death	Cerebrovascular Diseases								Diabetes Melitus
	Percentage of All Deaths	8.1	5.0	7.9	7.7	10.5	10.4	9.0	9.6	8.9
No. 4	Cause of Death	Transport Accidents							Bronchitis, Emphysema & Asthma	Cerebro-vascular Diseases
	Percentage of All Deaths	6.6	4.8	5.7	7.7	8.1	9.0	7.8	9.2	8.8
No. 5	Cause of Death	Diabetes Mellitus		Influenza and Pneumonia	Certain Conditions Originating in the Perinatal Period	Diabetes Mellitus	Bronchitis, Emphysema & Asthma		Diabetes Melitus	Bronchitis, Emphysema & Asthma
	Percentage of All Deaths	5.6	3.7	5.1	4.8	5.8	7.7	7.2	7.1	7.7

Source : Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs

[Indonesia]

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

Order	Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
No. 1	Cause of Death	Certain Conditions Originating in the Perinatal Period	Cerebro-vascular Diseases	Intestinal Infectious Diseases	Cerebrovascular Diseases					Certain Conditions Originating in the Perinatal Period		
	Percentage of All Deaths	12.2	13.1	16.1	14.2	12.3	16.5	13.2	12.2	13.6	24.4	22.1
No. 2	Cause of Death	Heart Diseases	Influenza and Pneumonia	Cerebro-vascular Diseases	Influenza and Pneumonia	HIV Infection	Influenza and Pneumonia	Certain Conditions Originating in the Perinatal Period		Heart Diseases		
	Percentage of All Deaths	8.2	8.3	10.8	7.5	11.6	9.4	8.8	9.5	10.1	10.4	9.2
No. 3	Cause of Death	Influenza and Pneumonia	Tuberculosis	Influenza and Pneunmonia	Malignant Neoplasms	Influenza and Pneunmonia	Tuberculosis	Heart Diseases		Cerebro-vascular Diseases	Tuberculosis	Influenza and Pneumonia
	Percentage of All Deaths	6.90	8.2	6.4	6.4	6.6	8.4	6.6	9.1	9.2	6.5	7.8
No. 4	Cause of Death	Cerebro-vascular Diseases	Malignant Neoplasms	Tuberculosis			Malignant Neoplasms	Influenza and Pneumonia				Tuberculosis
	Percentage of All Deaths	6.87	6.7	6.4	6.3	5.5	7.2	6.3	6.6	5.5	5.6	6.5
No. 5	Cause of Death	Intestinal Infectious Diseases		Malignant Neoplasms	Intestinal Infectious Diseases	Malignant Neoplasms	Intestinal Infectious Diseases	Malignant Neoplasms	Intestinal Infectious Diseases	Transport Accidents	Septicemia	Meningitis
	Percentage of All Deaths	6.3	4.7	6.1	6.2	4.8	6.3	5.3	5.0	5.0	4.2	5.0

Source : Ministry of Health

[Japan]

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

Order	Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
No. 1	Cause of Death	Malignant Neoplasms											
	Percentage of All Deaths	27.0	28.0	27.5	28.8	28.1	27.8	28.9	29.3	31.1	31.0	31.2	30.4
No. 2	Cause of Death	Heart Diseases							Cerebrovascular Diseases		Heart Diseases		
	Percentage of All Deaths	20.7	20.7	20.9	21.0	21.3	21.3	18.9	16.3	16.1	15.7	15.7	15.8
No. 3	Cause of Death	Cerebrovascular Diseases							Heart Diseases		Cerebrovascular Diseases		
	Percentage of All Deaths	16.9	15.9	15.4	14.8	14.3	14.0	14.2	15.5	15.8	15.6	15.1	14.6
No. 4	Cause of Death	Influenza and Pneumonia											
	Percentage of All Deaths	7.5	7.8	8.7	8.8	9.0	9.6	9.9	9.0	8.2	9.0	8.8	10.0
No. 5	Cause of Death	Suicide and Self-inflicted Injuries											
	Percentage of All Deaths	3.0	2.8	2.5	2.5	2.5	2.4	2.5	2.4	2.5	2.6	3.5	3.3

Source : Ministry of Health and Welfare

[Malaysia]

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

Order	Year	1988	1989	1990	1991 a)	1992	1993	1994	1995	1996	1997	1998
No. 1	Cause of Death	Heart Diseases										
	Percentage of All Deaths	12.7	23.1	20.1	22.0	20.3	20.2	20.0	19.9	19.4	19.5	19.5
No. 2	Cause of Death	Certain Conditions Originating in the Perinatal Period	Malignant Neoplasms									
	Percentage of All Deaths	9.0	12.3	10.1	12.5	11.8	11.4	10.9	11.6	10.7	10.6	10.9
No. 3	Cause of Death	Intestinal Infectious Diseases	Certain Conditions Originating in the Perinatal Period	Cerebrovascular Diseases								
	Percentage of All Deaths	7.5	11.8	9.3	9.1	9.1	9.1	8.7	8.6	8.4	8.1	8.2
No. 4	Cause of Death	Cerebrovascular Diseases		Certain Conditions Originating in the Perinatal Period						Transport Accidents		Septicemia
	Percentage of All Deaths	7.1	9.7	8.4	6.8	7.9	7.9	7.2	6.7	7.1	7.4	7.1
No. 5	Cause of Death	Malignant Neoplasms	Septicemia	Transport Accidents			Septicemia	Transport Accidents	Septicemia			Transport Accidents
	Percentage of All Deaths	6.3	4.9	4.3	5.9	5.7	5.5	5.8	6.1	6.7	6.6	6.4

Source : Ministry of Health

Note : a) Peninsular Malaysia only

[Philippines]

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

Order	Year	1988	1989	1990	1991	1992	1993	1994	1995
No. 1	Cause of Death	Influenza and Pneumonia		Heart Diseases					
	Percentage of All Deaths	16.4	15.7	15.4	15.6	15.1	15.1	14.6	14.8
No. 2	Cause of Death	Heart Diseases		Influenza and Pneumonia				Malignant Neoplasms	Influenza and Pneumonia
	Percentage of All Deaths	13.0	14.0	14.9	13.4	14.2	14.2	10.4	11.1
No. 3	Cause of Death	Tuberculosis				Malignant Neoplasms	Tuberculosis	Influenza and Pneumonia	Malignant Neoplasms
	Percentage of All Deaths	12.5	8.8	8.6	8.2	8.0	8.5	9.3	9.2
No. 4	Cause of Death	Malignant Neoplasms				Tuberculosis	Malignant Neoplasms	Tuberculosis	
	Percentage of All Deaths	7.2	7.3	7.8	8.1	7.8	7.0	8.9	8.8
No. 5	Cause of Death	Certain Conditions Originating in the Perinatal Period	Cerebrovascular Diseases				Hypertensive Diseases		
	Percentage of All Deaths	5.7	5.9	6.2	6.1	6.1	6.6	7.4	6.9

Source : Department of Health

[Singapore]

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

Order	Year	1988	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
No. 1	Cause of Death	Malignant Neoplasms										
	Percentage of All Deaths	23.7	23.9	24.4	24.2	24.5	25.2	25.1	25.6	27.0	26.0	26.8
No. 2	Cause of Death	Heart Diseases										
	Percentage of All Deaths	22.1	23.2	21.6	22.3	22.6	22.2	21.8	23.3	23.9	23.6	24.0
No. 3	Cause of Death	Cerebrovascular Diseases						Influenza and Pneumonia	Cerebrovascular Diseases		Influenza and Pneumonia	
	Percentage of All Deaths	7.8	8.7	9.3	10.0	11.1	11.2	13.1	11.6	10.8	11.4	10.6
No. 4	Cause of Death	Influenza and Pneumonia						Cerebro-vascular Diseases	Influenza and Pneumonia		Cerebrovascular Diseases	
	Percentage of All Deaths	7.8	8.7	9.3	10.0	11.1	11.2	11.0	10.9	10.2	10.5	10.6
No. 5	Cause of Death	Diabetes Mellitus	Suicide and Self-inflicted Injuries	Diabetes Mellitus	Suicide and Self-inflicted Injuries	Transport Accidents	Suicide and Self-inflicted Injuries		Hypertensive Diseases		Suicide and Self-inflicted Injuries	Hypertensive Diseases
	Percentage of All Deaths	3.7	2.6	2.3	2.1	2.2	2.3	2.6	2.3	2.29	2.4	2.3

Source : Ministry of Health

[Thailand]

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

Order	Year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
No. 1	Cause of Death	Heart Diseases											Malignant Neoplasms
	Percentage of All Deaths	19.0	20.1	20.2	20.6	20.3	20.2	17.5	19.5	20.9	21.8	22.3	16.9
No. 2	Cause of Death	Malignant Neoplasms											Heart Diseases
	Percentage of All Deaths	14.3	14.9	15.5	15.5	15.8	15.6	13.3	14.2	13.3	13.2	16.7	14.5
No. 3	Cause of Death	Transport Accidents											
	Percentage of All Deaths	4.4	5.0	6.0	6.9	7.3	7.5	6.8	8.0	7.7	6.6	4.6	5.5
No. 4	Cause of Death	Homicides & Injuries Inflicted by Other Persons	Cerebrovascular Diseases					Chronic Liver Diseases & Cirrhosis	Septicemia	Influenza and Pneumonia	Septicemia	Septicemia	Influenza and Pneumonia
	Percentage of All Deaths	4.3	4.2	4.1	4.2	4.3	3.9	3.4	3.13	3.2	3.1	3.3	4.1
No. 5	Cause of Death	Cerebro-vascular Diseases	Homicides & Injuries Inflicted by Other Persons	Chronic Liver Diseases & Cirrhosis		Nephritis, Nephrotic Syndrome & Nephrosis		Influenza and Pneumonia		Septicemia	Cerebro-vascular Diseases	Influenza and Pneumonia	Septicemia
	Percentage of All Deaths	4.1	3.8	3.6	3.6	3.5	3.4	3.0	3.12	3.0	2.9	3.3	3.6

Source : Ministry of Public Health

[Vietnam]

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

Order	Year	1995	1996
No. 1	Cause of Death	Certain Conditions Originating in the Perinatal Period	
	Percentage of All Deaths	23.5	11.3
No. 2	Cause of Death	Influenza and Pneumonia	Heart Diseases
	Percentage of All Deaths	4.6	7.7
No. 3	Cause of Death	Tuberculosis	
	Percentage of All Deaths	4.1	5.8
No. 4	Cause of Death	Heart Diseases	Influenza and Pneumonia
	Percentage of All Deaths	4.0	5.8
No. 5	Cause of Death	Cerebro-vascular Diseases	Transport Accidents
	Percentage of All Deaths	2.8	3.4

Source : Ministry of Health

3 – 3 Deaths and Death Rates by Sex Cause (ICD-9/ICD-10)

	Basic Tabulation List ICD – 9 a) 3–Char. Categories ICD – 10		All Causes		01 – 07 A00 – B99 Infectious and Parasitic Diseases		010 A00 Cholera		011 A01 Typhoid and Paratyphoid Fevers		012, 014 A03,A06 Dysentery (Amebiasis and Bacillary)	
	Year	Sex	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI (1)	1999	T	905	273.7	21	6.4	—		—		—	
		M	515	293.9	9	5.1	—		—		—	
		F	390	250.8	12	7.7	—		—		—	
INDONESIA (2)	1997	T	53,755		6,641		6		806		40	
	1998	T	44,742		5,425		14		581		38	
JAPAN (3)	1998	T	936,484	747.7	18,845	15.0	—		—		5	0.0
		M	512,128	835.3	10,478	17.1	—		—		5	0.0
		F	424,356	663.7	8,367	13.1	—		—		—	
	1999	T	982,031	782.9	20,281	16.2	—		—		6	0.0
		M	534,778	871.6	11,244	18.3	—		—		6	0.0
		F	447,253	698.0	9,037	14.1	—		—		—	
MALAYSIA (4) c)	1998	T	43,514	196.2	4,272	19.3	20	0.1	20	0.1	—	
		M	27,724	244.2	2,682	23.6	18	0.2	16	0.1	—	
		F	15,790	145.8	1,590	14.7	2	0.0	4	0.0	—	
PHILIPPINES (5)	1996	T	344,363	492.3	42,001	60.0	157	0.2	1,052	1.5	437	0.6
		M	204,363	575.3	26,955	75.9	93	0.3	603	1.7	273	0.8
		F	140,000	403.5	15,046	43.4	64	0.2	449	1.3	164	0.5
SINGAPORE (6) d)	1999	T	15,516 e)	450.4	311	8.8	—		—		1	0.0
		M	8,608	490.8	185	10.1	—		—		1	0.1
		F	6,906	409.3	126	7.5	—		—		—	—
THAILAND (7)	1999	T	362,607	588.9	25,464	41.4	—		97	0.2	16	0.0
		M	213,432	697.0	16,885	55.1	—		61	0.2	9	0.0
		F	149,175	481.9	8,579	27.7	—		36	0.1	7	0.0
VIETNAM (8) f)	1996	T	21,320		3,794		1		38		45	

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs
(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) Department of Statistics
(5) ***Philippine Health Statistics,*** National Epidemiolgy Center, Department of Health
(6) ***Report on Registration of Birth and Deaths,*** Registry of Births and Deaths
(7) Ministry of Public Health (official data)
(8) Ministry of Health

(rate per 100,000 population)

013, 015, 016, 019 Rest of A00 – A09		020 – 021 A15, A16		022 – 025, 029 A17 – A19		033 A36		034 A37		036 A39		037, 771.3 [g] A33 – A35		038 A40, A41	
Other Intestinal Infectious Diseases		Tuberculosis of Respiratory System		Tuberculosis of Other Forms		Diphtheria		Whooping Cough		Meningococcal Infection		Tetanus		Septicemia	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
—		4	1.2	3	0.9	—		—		1	0.3	—		7	2.1
—		2	1.1	1	0.6	—		—		—		—		4	2.3
—		2	1.3	2	1.3	—		—		1	0.6	—		3	1.9
257		2,114		27		15		5		5		476		1,372	
156		1,716		10		27		5		14		468		938	
1,042	0.8	2,584	2.1	211	0.2	—		—		2	0.0	9	0.0	5,742	4.6
455	0.7	1,876	3.1	101	0.2	—		—		1	0.0	5	0.0	2,669	4.4
587	0.9	708	1.1	110	0.2	—		—		1	0.0	4	0.0	3,073	4.8
1,171	0.9	2,728	2.2	207	0.2	—		2	0.0	1	0.0	10	0.0	6,125	4.9
524	0.9	2,004	3.3	110	0.2	—		1	0.0	—		6	0.0	2,878	4.7
647	1.0	724	1.1	97	0.2	—		1	0.0	1	0.0	4	0.0	3,247	5.1
116	0.5	470	2.1	103	0.5	1	0.0	—		3	0.0	10	0.0	2,923	13.2
59	0.5	355	3.1	70	0.6	—		—		1	0.0	3	0.0	1,750	15.4
57	0.5	115	1.1	33	0.3	1	0.0	—		2	0.0	7	0.1	1,173	10.8
17	0.0	26,376	37.7	992	1.4	29	0.0	9	0.0	167	0.2	758	1.1	4,125	5.9
13	0.0	17,663	49.7	553	1.6	14	0.0	5	0.0	98	0.3	566	1.6	2,167	6.1
4	0.0	8,713	25.1	439	1.3	15	0.0	4	0.0	69	0.2	192	0.6	1,958	5.6
25	0.7	98	2.9	9	0.2	—		—		1	0.0	—		125	3.7
14	0.8	67	3.8	5	0.2	—		—		—	—	—		60	3.5
11	0.7	31	1.9	4	0.2	—		—		1	0.1	—		65	3.9
1,099	1.8	4,701	7.6	564	0.9	17	0.0	7	0.0	2	0.0	98	0.2	7,703	12.5
645	2.1	3,505	11.4	384	1.3	8	0.0	6	0.0	1	0.0	62	0.2	4,220	13.8
454	1.5	1,196	3.9	180	0.6	9	0.0	1	0.0	1	0.0	36	0.1	3,483	11.3
601		1,146		83		23		3				280 [h]			

Note : a) ICD – 10: Brunei, Indonesia, Japan, Thailand and Vietnam
b) Including 1 intersex
c) Medically certified deaths only
d) The number of deaths includes non-residents. Death rates are computed based on the number of resident deaths over resident population.
e) Includes unknown sex
f) Provincial Hospital-based figures
g) Four-digit subcategory
h) Age under 5 years

3 – 3 Deaths and Death Rates by Sex Cause (ICD-9/ICD-10) (Contd.)

	Year	Sex	030 – 032, 035, 039 Rest of A20 – A49 Other Bacterial Diseases		040 A80 Acute Poliomyelitis		042 B05 Measles		046 B15 – B19 Viral Hepatitis		047 A82 Rabies	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1999	T	—		—		—		2	0.6	1	0.3
		M	—		—		—		1	0.6	—	—
		F	—		—		—		1	0.6	1	0.6
INDONESIA	1997	T	109		3		21		202		32	
	1998	T	59		—		16		114		29	
JAPAN	1998	T	804	0.6	—		25	0.0	4,869	3.9	—	
		M	395	0.6	—		14	0.0	2,754	4.5	—	
		F	409	0.6	—		11	0.0	2,115	3.3	—	
	1999	T	871	0.7	—		29	0.0	5,184	4.1	—	
		M	388	0.6	—		16	0.0	2,883	4.7	—	
		F	483	0.8	—		13	0.0	2,301	3.6	—	
MALAYSIA	1998	T	163	0.7	—		3	0.0	26	0.1	1	0.0
		M	87	0.8	—		1	0.0	19	0.2	—	
		F	76	0.7	—		2	0.0	7	0.1	1	0.0
PHILIPPINES	1996	T	150	0.2	43	0.1	2,448	3.5	1,084	1.5	685	1.0
		M	85	0.2	30	0.1	1,269	3.6	773	2.2	463	1.3
		F	65	0.2	13	0.0	1,179	3.4	311	0.9	222	0.6
SINGAPORE	1999	T	9	0.2	—		—		12	0.3	1	0.0
		M	4	0.2	—		—		12	0.6	1	0.0
		F	5	0.3	—		—		—		—	
THAILAND	1999	T	246	0.4	41	0.1	7	0.0	290	0.5	44	0.1
		M	187	0.6	19	0.1	6	0.0	208	0.7	28	0.1
		F	59	0.2	22	0.1	1	0.0	82	0.3	16	0.1
VIETNAM	1996	T			52 [a)]		9 [a)]		61		92	

Note : a) Age under 5 years

(rate per 100,000 population)

279.5 [a] B20 – B24		061 [a] A90		065.4 [a] A91		044, 045 ••		041, 043, 048, 049 Rest of A80 – B34		052 B50 – B54		06 A50 – A64		Rest of 01 – 07 Rest of A00 – B99	
AIDS (HIV)		Dengue		Dengue Hemorrhagic Fever		Other Arthropod-borne Viral Diseases		Other Viral Diseases		Malaria		Venereal Diseases		Other Infectious and Parasitic Diseases	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
2	0.6	—		—				—		—		—		1	0.3
1	0.6	—		—		••		—		—		—		—	
1	0.6	—		—				—		—		—		1	0.6
—		131		705		17		16		263		—		19	
2		51		850		28		22		241		—		46	
48 [b]	0.0	—		—				378	0.3	3	0.0	22	0.0	3,101	2.5
45	0.1	—		—		••		200	0.3	3	0.0	17	0.0	1,938	3.2
3	0.0	—		—				178	0.3	—		5	0.0	1,163	1.8
45 [b]	0.0	—		—				489	0.4	6	0.0	21	0.0	3,386	2.7
43	0.1	—		—		••		244	0.4	5	0.0	16	0.0	2,120	3.5
2	0.0	—		—				245	0.4	1	0.0	5	0.0	1,266	2.0
—		46	0.2	—		2	0.0	180	0.8	20	0.1	9	0.0	156	0.7
—		23	0.2	—		2	0.0	138	1.2	12	0.1	5	0.0	123	1.1
—		23	0.2	—		—		42	0.4	8	0.1	4	0.0	33	0.3
—		2,018			2.9	11	0.0	606	0.9	536	0.8	11	0.0	290	0.4
—		1,376			3.9	7	0.0	316	0.9	374	1.1	6	0.0	208	0.6
—		642			1.9	4	0.0	290	0.8	162	0.5	5	0.0	82	0.2
72	2.1	—		5	0.1	—		16	0.4	1	0.0	2	0.1	6	0.1
62	3.7	—		5	0.2	—		9	0.5	1	0.0	1	0.1	5	0.2
10	0.4	—		—		—		7	0.3	—		1	0.1	1	0.1
6,429	10.4	—		132	0.2			590	1.0	740	1.2	5	0.0	2,636	4.3
4,688	15.3	—		76	0.2	••		414	1.4	567	1.9	5	0.0	1,786	5.8
1,741	5.6	—		56	0.2			176	0.6	173	0.6	—	0.0	850	2.7
225 [c]		268				••		66		158				325	

Note : a) Four-digit subcategory
b) Excluding hemophiliacs
c) Up to November, 1996

3 – 3 Deaths and Death Rates by Sex Cause (ICD-9/ICD-10) (Contd.)

	Year	Sex	08 – 14 C00 – C97 Malignant Neoplasms		091 C16 Malignant Neoplasm of Stomach		093 C18 Malignant Neoplasm of Colon		094 C19 – C20 Malignant Neoplasm of Rectum, Rectosigmoid Junction and Anus		095 C22 Malignant Neoplasm of Liver Specified as Primary		101 C33, C34 Malignant Neoplasm of Trachea, Bronchus and Lung	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1999	T	158	47.8	12	3.6	9	2.7	11	3.3	11	3.3	31	9.4
		M	86	49.1	10	5.7	7	4.0	9	5.1	8	4.6	14	8.0
		F	72	46.3	2	1.3	2	1.3	2	1.3	3	1.9	17	10.9
INDONESIA	1997	T	1,333		30		61		58		398		320	
	1998	T	932		19		65		64		216		171	
JAPAN	1998	T	283,921	226.7	50,680	40.5	22,401	17.9	11,996	9.6	33,433	26.7	50,871	40.6
		M	172,306	281.0	32,858	53.6	11,581	18.9	7,468	12.2	23,553	38.4	36,880	60.2
		F	111,615	174.6	17,822	27.9	10,820	16.9	4,528	7.1	9,880	15.5	13,991	21.9
	1999	T	290,556	231.6	50,676	40.4	23,245	18.5	12,118	9.7	33,816	27.0	52,177	41.6
		M	175,817	286.5	32,788	53.4	11,862	19.3	7,556	12.3	23,492	38.3	37,934	61.8
		F	114,739	179.1	17,888	27.9	11,383	17.8	4,562	7.2	10,324	16.1	14,243	22.2
MALAYSIA	1998	T	4,498	20.3	266	1.2	239	1.1	120	0.5	431	1.9	941	4.2
		M	2,520	22.2	163	1.4	135	1.2	75	0.7	325	2.9	669	5.9
		F	1,978	18.3	103	1.0	104	1.0	45	0.4	106	1.0	272	2.5
PHILIPPINES	1996	T	30,077	43.0	1,435	2.1	1,057	1.5	500	0.7	—		5,327	7.6
		M	16,246	45.7	860	2.4	555	1.6	306	0.9	—		3,954	11.1
		F	13,831	39.9	575	1.7	502	1.4	194	0.6	—		1,373	4.0
SINGAPORE	1999	T	4,134	123.2	363	11.0	407	12.4	152	4.5	207	6.1	969	29.2
		M	2,377	141.6	228	13.9	199	12.0	96	5.7	173	10.1	699	42.1
		F	1,757	104.7	135	8.1	208	12.8	56	3.4	34	2.1	270	16.1
THAILAND	1999	T	35,703	58.0	458	0.7	1,695	2.8	4	0.0	7,900	12.8	4,220	6.9
		M	21,008	68.6	267	0.9	992	3.2	1	0.0	5,646	18.4	2,931	9.6
		F	14,695	47.5	191	0.6	703	2.3	3	0.0	2,254	7.3	1,289	4.2
VIETNAM	1996	T	524		63		22				69		89	

(rate per 100,000 population)

113 C50 [a]		120 C53		122 C54, C55		141 C91 – C95		140, 149 Rest of C81 – C96		Rest of 8 – 13 Rest of C00 – C80, C97		15 – 17 D00 – D48		181 E10 – E14	
Malignant Neoplasm of Female Breast		Malignant Neoplasm of Cervix Uteri		Malignant Neoplasm of Uterus, Other and Unspecified		Leukemia		Other Malignant Neoplasm of Lymphatic and Hemopoietic Tissue		Malignant Neoplasm of Other Sites		Benign Neoplasm, Carcinoma in Situ, Other and Unspecified Neoplasmas		Diabetes Mellitus	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
10	3.0	8	2.4	1	0.3	8	2.4	7	2.1	50	15.1	3	0.9	73	22.1
—		••		••		3	1.7	6	3.4	29	16.6	2	1.1	33	18.8
10	6.4	8	5.1	1	0.6	5	3.2	1	0.6	21	13.5	1	0.6	40	25.7
141		74		13		2		219		17		264 [(1)]		875	
112		88		12		4		177		4		164		716	
8,665	6.9	2,266	1.8	2,740	2.2	6,546	5.2	10,445	8.3	83,878	67.0	8,526	6.8	12,537	10.0
76	0.1	••		••		3,781	6.2	5,892	9.6	50,217	81.9	4,699	7.7	6,424	10.5
8,589	13.4	2,266	3.5	2,740	4.3	2,765	4.3	4,553	7.1	33,661	52.6	3,827	6.0	6,113	9.6
8,949	7.1	2,260	1.8	2,882	2.3	6,774	5.4	10,892	8.7	86,767	69.2	8,767	7.0	12,814	10.2
67	0.1	••		••		3,928	6.4	6,135	10.0	52,055	84.8	4,771	7.8	6,527	10.6
8,882	13.9	2,260	3.5	2,882	4.5	2,846	4.4	4,757	7.1	34,712	54.2	3,996	6.2	6,287	9.8
339	1.53	177	0.80	26	0.1	311	1.4	248	1.1	1,400	6.3	215	1.0	729	3.3
••		••		••		172	1.5	151	1.3	830	7.3	115	1.0	336	3.0
339	3.1	177	1.6	26	0.2	139	1.3	97	0.9	570	5.3	100	0.9	393	3.6
2,426	3.5	562	0.8	1,146 [b]	1.6	1,898	2.7	710	1.0	15,016	21.5	262	0.4	7,677	11.0
••		••		••		952	2.7	436	1.2	9,183	25.8	112	0.3	3,706	10.4
2,426	7.0	562	1.6	1,146	3.3	946	2.7	274	0.8	5,833	16.8	150	0.4	3,971	11.4
292	8.6	99	3.0	34	1.1	112	2.9	146	4.1	1,353	40.4	34	1.0	350	10.5
••		••		••		63	3.2	85	4.8	834	49.7	19	1.2	158	9.4
292	17.3	99	5.9	34	2.1	49	2.5	61	3.4	519	31.0	15	0.9	192	11.5
899	1.5	672	1.1	538	0.9	1,244	1.0	186	0.3	17,887	29.1	388	0.3	7,000	11.4
9	0.0	••		••		692	2.3	101	0.3	10,369	33.9	231	0.3	2,679	8.7
890	2.9	672	2.2	538	1.7	552	1.8	85	0.3	7,518	24.3	157	0.3	4,321	14.0
13		29				52		3		174		13		120	

Source : (1) Directorate of Medical Care

Note : a) The code C50 comprises malignant neoplasm of breast, regardless sex
b) Uterus only

3 – 3 Deaths and Death Rates by Sex Cause (ICD-9/ICD-10) (Contd.)

	Year	Sex	180, 182, 183, 189 Rest of E00 – E90 Other Endocrine and Metabolic Diseases		19 E40 – E64 Nutritional Deficiencies		200 D50 – D64 Anemias		209 D65 – D89 [a] Other Diseases of Blood and Blood-forming Organs		21 F00 – F99 Mental Disorders		220 G00 – G09 Meningitis	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1999	T	2			0.6	2	0.6	2	0.6	2	0.6	—	
		M	2			1.1	—		1	0.6	1	0.6	—	
		F	—				2	1.3	1	0.6	1	0.6	—	
INDONESIA	1997	T	153		59		507		66		112		1,083	
	1998	T	94		74		512		53		99		1,372	
JAPAN	1998	T	3,307	2.6	1,309	1.0	1,778	1.4	2,376	1.9	3,287	2.6	897	0.7
		M	1,424	2.3	671	1.1	665	1.0	1,171	1.9	1,373	2.2	508	0.8
		F	1,883	2.9	638	1.0	1,113	1.7	1,205	1.9	1,914	3.0	389	0.6
	1999	T	3,550	2.8	1,397	1.1	1,775	1.4	2,423	1.9	3,613	2.9	1,011	0.8
		M	1,524	2.5	746	1.2	687	1.1	1,143	1.9	1,441	2.3	596	1.0
		F	2,026	3.2	651	1.0	1,088	1.7	1,280	2.0	2,172	3.4	415	0.6
MALAYSIA	1998	T	680	3.1	21	0.1	122	0.6	105	0.5	187	0.8	206	0.9
		M	538	4.7	13	0.1	60	0.5	58	0.5	170	1.5	130	1.1
		F	142	1.3	8	0.1	62	0.6	47	0.4	17	0.2	76	0.7
PHILIPPINES	1996	T	2,097	3.0	3,108	4.4	2,210	3.2	591	0.8	1,301	1.9	1,900	2.7
		M	977	2.8	1,486	4.2	1,129	3.2	305	0.9	971	2.7	1,111	3.1
		F	1,120	3.2	1,622	4.7	1,081	3.1	286	0.8	330	1.0	789	2.3
SINGAPORE	1999	T	22	0.7	—		24	0.7	26	0.8	15	0.5	10	0.3
		M	9	0.5	—		7	0.4	12	0.7	6	0.4	8	0.4
		F	13	0.8	—		17	1.0	14	0.9	9	0.6	2	0.1
THAILAND	1999	T	330	0.5	107	0.2	295	0.5	9,592	15.6	553	0.9	1,752	2.8
		M	142	0.5	59	0.2	153	0.5	6,498	21.2	490	1.6	1,233	4.0
		F	188	0.6	48	0.2	142	0.5	3,094	10.0	63	0.2	519	1.7
VIETNAM	1996	T	246		105		387		80		30		[b]	

Note : a) Includes D80 – D89: Certain Disorders Involving the Immune Mechanism
b) See Note a) on page 75

(rate per 100,000 population)

221 – 225, 229, 23,24 G10 – H95		25 – 30 I 00 – I 99		25 I 00 – I 09		26 I 10 – I 15		270 I 21 – I 23		279 I 20, I 24, I 25		28 I 30 – I 52		29 I 60 – I 69	
Other Diseases of Nervous System and Sense Organs		Diseases of Circulatory System		Rheumatic Fever and Rheumatic Heart Diseases		Hypertensive Diseases		Acute Myocardial Infarction		Other Ischemic Heart Diseases		Other Heart Diseases		Cerebrovascular Diseases	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
6	1.8	256	77.4	6	1.8	27	8.2	45	13.6	26	7.9	72	21.8	72	21.8
5	2.9	153	87.3	2	1.1	14	8.0	32	18.3	19	10.8	37	21.1	42	24.0
1	0.6	103	66.2	4	2.6	13	8.4	13	8.4	7	4.5	35	22.5	30	19.3
590		5,399		7		871		706		708		1,996		989	
310		3,851		4		614		602		509		1,378		683	
7,887	6.3	299,671	239.3	2,524	2.0	6,716	5.4	48,476	38.7	23,202	18.5	68,465	54.7	137,819	110.0
4,122	6.7	145,801	237.8	786	1.3	2,360	3.8	26,533	43.3	12,033	19.6	31,557	51.5	65,529	106.9
3,765	5.9	153,870	240.6	1,738	2.7	4,356	6.8	21,943	34.3	11,169	17.5	36,908	57.7	72,290	113.1
8,602	6.9	309,381	246.7	2,576	2.1	6,650	5.3	49,295	39.3	24,632	19.6	74,138	59.1	138,989	110.8
4,474	7.3	149,937	244.4	796	1.3	2,376	3.9	26,646	43.4	12,851	20.9	33,481	54.6	66,452	108.3
4,128	6.4	159,444	248.8	1,780	2.8	4,274	6.7	22,649	35.3	11,781	18.4	40,657	63.5	72,537	113.2
580	2.6	12,215	55.1	105	0.5	450	2.0	3,328	15.0	1,062	4.8	3,534	15.9	3,367	15.2
365	3.2	7,464	65.8	48	0.4	255	2.3	2,310	20.4	696	6.1	1,988	17.5	1,907	16.8
215	2.0	4,751	43.9	57	0.5	195	1.8	1,018	9.4	366	3.4	1,546	14.3	1,460	13.5
2,043	2.9	95,376	136.3	2,541	3.6	23,666	33.8	19,059	27.2	10,117	14.5	16,295	23.3	20,515	29.3
1,182	3.3	54,561	153.6	1,186	3.3	13,721	38.6	12,517	35.2	5,046	14.2	8,720	24.5	11,799	33.2
861	2.5	40,815	117.6	1,355	3.9	9,945	28.7	6,542	18.9	5,071	14.6	7,575	21.8	8,716	25.1
95	2.8	5,810	170.6	38	1.1	354	10.6	1,809	53.1	1,482	43.9	378	10.3	1,633	48.4
49	2.9	3,050	176.0	13	0.7	174	10.3	1,037	59.4	788	46.3	210	10.9	755	44.3
46	2.7	2,760	165.1	25	1.4	180	10.8	772	46.8	694	41.5	168	9.7	878	52.4
8,491	13.8	42,288	68.7	165	0.3	2,987	4.9	1,240	2.0	3,609	5.9	25,621	41.6	6,631	10.8
5,301	17.3	25,177	82.2	72	0.2	1,618	5.3	721	2.4	2,180	7.1	15,500	50.6	3,834	12.5
3,190	10.3	17,111	55.3	93	0.3	1,369	4.4	519	1.7	1,429	4.6	10,121	32.7	2,797	9.0
424 [a)]		3,994		223		683		442		143		812		252	

Note : a) Includes meningitis

3 – 3 Deaths and Death Rates by Sex Cause (ICD-9/ICD-10) (Contd.)

	Year	Sex	300 I 70 Atherosclerosis		301 – 305, 309 Rest of I 00 – I 99 Other Diseases of Circulatory System		310 – 312 J00 – J06 Acute Upper Respiratory Infection		320 J20, J21 Acute Bronchitis and Bronchiolitis		321 J12 – J18 Pneumonia		322 J10, J11 Influenza	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1999	T	—		8	2.4	—		—		26	7.9	—	
		M	—		7	4.0	—		—		16	9.1	—	
		F	—		1	0.6	—		—		10	6.4	—	
INDONESIA	1997	T	35		87		203		721		1,828		5	
	1998	T	1		60		185		535		2,105		15	
JAPAN	1998	T	1,030	0.8	11,439	9.1	605	0.5	1,583	1.3	79,952	63.8	528	0.4
		M	492	0.8	6,511	10.6	260	0.4	713	1.2	42,663	69.6	236	0.4
		F	538	0.8	4,928	7.7	345	0.5	870	1.4	37,289	58.3	292	0.5
	1999	T	1,144	0.9	11,957	9.5	734	0.6	2,093	1.7	93,994	74.9	1,382	1.1
		M	572	0.9	6,763	11.0	320	0.5	899	1.5	49,903	81.3	690	1.1
		F	572	0.9	5,194	8.1	414	0.6	1,194	1.9	44,091	68.8	692	1.1
MALAYSIA	1998	T	1	0.0	368	1.7	5	0.0	4	0.0	1,865	8.4	1	0.0
		M	1	0.0	259	2.3	3	0.0	3	0.0	1,172	10.3	—	
		F	—		109	1.0	2	0.0	1	0.0	693	6.4	1	0.0
PHILIPPINES	1996	T	2,290	3.3	893	1.3	135	0.2	218	0.3	33,319	47.6	340	0.5
		M	1,033	2.9	539	1.5	84	0.2	128	0.4	17,386	48.9	184	0.5
		F	1,257	3.6	354	1.0	51	0.1	90	0.3	15,933	45.9	156	0.4
SINGAPORE	1999	T	3	0.1	113	3.2	6	0.2	—		1,641	48.2	—	
		M	1	0.1	72	4.0	4	0.2	—		812	46.7	—	
		F	2	0.1	41	2.3	2	0.1	—		829	49.7	—	
THAILAND	1999	T	5	0.0	2,030	3.3	96	0.2	15	0.0	8,645	14.0	110	0.2
		M	3	0.0	1,249	4.1	53	0.2	12	0.0	5,443	17.8	62	0.2
		F	2	0.0	781	2.5	43	0.1	3	0.0	3,202	10.3	48	0.2
VIETNAM	1996	T	—		605		56		296		1,227		—	

(rate per 100,000 population)

323 J40 – J46		313 – 315, 319, 324 – 327, 329 Rest of J00 – J99		341 K25 – K27		347 K73, K74		33, 340, 342 – 346, 348, 349 Rest of K00 – K93		350 N00 – N19		351 – 353, 359, 36, 37 N20 – N99		38 O00 – O08	
Bronchitis, Chronic and Unspecified, Emphysema and Asthma		Other Diseases of Respiratory System		Ulcer of Stomach and Duodenum		Chronic Liver Diseases and Cirrhosis		Other Diseases of Digestive System		Nephritis, Nephrotic Syndrome and Nephrosis		Other Diseases of Genito-urinary System		Abortion	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
63	19.1	6	1.8	3	0.9	8	2.4	5	1.5	37			11.2	—	
38	21.7	4	2.3	2	1.1	4	2.3	4	2.3	15			8.6	••	
25	16.1	2	1.3	1	0.6	4	2.6	1	0.6	26			16.7	—	
1,162		444		46		263		398		115		60		62	
970		320		93		237		311		60		100		49	
18,185	14.5	23,698	18.9	3,871	3.1	10,766	8.6	22,428	17.9	19,339	15.4	1,967	1.6	5	0.0
11,901	19.4	13,806	22.5	2,131	3.5	7,098	11.6	11,971	19.5	8,813	14.4	803	1.3	••	
6,284	9.8	9,892	15.5	1,740	2.7	3,668	5.7	10,457	16.4	10,526	16.5	1,164	1.8	5	0.0
19,664	15.7	26,453	21.1	4,053	3.2	10,764	8.6	24,049	19.2	20,413	16.3	2,204	1.8	1	0.0
13,049	21.3	15,271	24.9	2,250	3.7	6,988	11.4	12,946	21.1	9,390	15.3	840	1.4	••	
6,615	10.3	11,182	17.5	1,803	2.8	3,776	5.9	11,103	17.3	11,023	17.2	1,364	2.1	1	0.0
8	0.0	2,690	12.1	117	0.5	363	1.6	1,333	6.0	1,011	4.6	116	0.5	22	0.1
5	0.0	1,773	15.6	86	0.8	272	2.4	900	7.9	596	5.3	45	0.4	—	
3	0.0	917	8.5	31	0.3	91	0.8	433	4.0	415	3.8	71	0.7	22	0.2
12,482	17.8	7,333	10.5	5,724	8.2	3,867	5.5	6,107	8.7	7,364	10.5	1,359	1.9	168	0.2
8,210	23.1	3,628	10.2	3,975	11.2	3,123	8.8	4,381	12.3	4,345	12.2	730	2.1	••	
4,272	12.3	3,705	10.7	1,749	5.0	744	2.1	1,726	5.0	3,019	8.7	629	1.8	168	0.5
135	3.9	575	17.4	100	3.0	150	4.3	162	4.8	181	5.4	289	8.7	—	
74	4.3	412	24.7	66	3.9	100	5.7	74	4.3	98	5.8	94	5.6	••	
61	3.5	163	10.0	34	2.0	50	2.9	88	5.2	83	4.9	195	11.9	—	
3,210	5.2	8,557	13.9	346	0.6	3,671	6.0	4,629	7.5	6,105	9.9	872	1.4	15	0.0
2,320	7.6	5,852	19.1	234	0.8	2,738	8.9	3,185	10.4	3,233	10.6	456	1.5	••	
890	2.9	2,705	8.7	112	0.4	933	3.0	1,444	4.7	2,872	9.3	416	1.3	15	0.0
184		680		153		452		734		225		87		5	

3 – 3 Deaths and Death Rates by Sex Cause (ICD-9/ICD-10) (Contd.)

	Year	Sex	39 O10 – O75, O81 – O97 Other Direct Obstetric Causes		40, 41 O80, O98 – O99 Indirect Obstetric Causes		42 L00 – L99 Diseases of Skin and Subcutaneous Tissue		43 M00 – M99 Diseases of Musculo-skeletal System and Connective Tissue		44 Q00 – Q99 Congenital Anomalies		45 P00 – P96 Certain Conditions Originating in the Perinatal Period	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1999	T	—		—		—		4	1.2	24	7.3	24	7.3
		M	—		—		—		1	0.6	13	7.4	15	8.6
		F	—		—		—		3	1.9	11	7.1	9	5.8
INDONESIA	1997	T	137		112		72		—		157		8,029	
	1998	F	140		334		46		2		162		6,009	
JAPAN	1998	T	62	0.0	22	0.0	847	0.7	4,145	3.3	2,885	2.3	1,262	1.0
		M	••		••		291	0.5	1,288	2.1	1,449	2.4	705	1.1
		F	62	0.1	22	0.0	556	0.9	2,857	4.5	1,436	2.2	557	0.9
	1999	T	61	0.0	17	0.0	904	0.7	4,295	3.4	2,673	2.1	1,206	1.0
		M	••		••		307	0.5	1,374	2.2	1,349	2.2	665	1.1
		F	61	0.1	17	0.0	597	0.9	2,921	4.6	1,324	2.1	541	0.8
MALAYSIA	1998	T	94	0.4	2	0.0	106	0.5	81	0.4	1,027	4.6	2,002	9.0
		M	—		—		60	0.5	26	0.2	566	5.0	1,141	10.1
		F	94	0.9	2	0.0	46	0.4	55	0.5	461	4.3	861	8.0
PHILIPPINES	1996	T	1,389	2.0	—		1,073	1.5	938	1.3	4,297	6.1	14,637	20.9
		M	••		••		516	1.5	544	1.5	2,354	6.6	8,687	24.5
		F	1,389	4.0	—		557	1.6	394	1.1	1,943	5.6	5,950	17.1
SINGAPORE	1999	T	4	0.1	—		36	1.1	53	1.6	95	2.8	52 [a)]	1.5
		M	••		••		19	1.1	19	1.2	54	3.0	22	1.1
		F	4	0.1	—		17	1.1	34	1.9	41	2.5	29	1.5
THAILAND	1999	T	74	0.1	4	0.0	633	1.0	378	0.6	807	1.3	2,275	3.7
		M	••		••		354	1.2	184	0.6	438	1.4	1,250	4.1
		F	74	0.2	4	0.0	279	0.9	194	0.6	369	1.2	1,025	3.3
VIETNAM	1996	T	120		16		43		33		257		2,371	

Note : a) Includes unknown sex

(rate per 100,000 population)

465 R54		460 – 464, 466, 467, 469 Rest of R00 – R99		E47 – E56 V01 – Y98		E47 V01 – V99		E48 X40 – X49		E50 W00 – W19		E51 X00 – X09		E521 W65 – W74	
Senility without Mention of Psychosis		Signs, Symptoms and Other Ill-defined Conditions		Accidents and Adverse Effects		Transport Accidents		Accidental Poisoning		Accidental Falls		Accidents Caused by Fire and Flames		Accidental Drowning and Submersion	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
60	18.1	21	6.4	95	28.7	49	14.8	3	0.9	10	3.0	1	0.3	15	4.5
29	16.6	8	4.6	74	42.2	37	21.1	3	1.7	8	4.6	1	0.6	13	7.4
31	19.9	13	8.4	21	13.5	12	7.7	—		2	1.3	—		2	1.3
8		20,883		1,968		1,154		48		122		23		5	
9		17,532		1,926		1,216		39		142		39		2	
21,374	17.1	4,269	3.4	74,350	59.4	13,464	10.7	559	0.4	6,143	4.9	1,339	1.1	5,607	4.5
6,293	10.3	2,421	3.9	49,644	81.0	9,552	15.6	378	0.6	3,776	6.2	854	1.4	3,172	5.2
15,081	23.6	1,848	2.9	24,706	38.6	3,912	6.1	181	0.3	2,367	3.7	485	0.8	2,435	3.8
22,829	18.2	4,830	3.9	75,242	60.0	13,111	10.5	707	0.6	6,318	5.0	1,463	1.2	5,943	4.7
6,600	10.8	2,761	4.5	50,269	81.9	9,189	15.0	499	0.8	3,914	6.4	880	1.4	3,362	5.5
16,229	25.3	2,069	3.2	24,973	39.0	3,922	6.1	208	0.3	2,404	3.8	583	0.9	2,581	4.0
911	4.1	1,362	6.1	6,564	29.6	2,642	11.9	91	0.4	355	1.6	153	0.7	320	1.4
369	3.3	893	7.9	5,363	47.2	2,235	19.7	70	0.6	288	2.5	98	0.9	253	2.2
542	5.0	469	4.3	1,201	11.1	407	3.8	21	0.2	67	0.6	55	0.5	67	0.6
7,467	10.7	10,238	14.6	30,378	43.4	5,285	7.6	392	0.6	1,088	1.6	642	0.9	2,873	4.1
3,000	8.4	5,905	16.6	24,639	69.4	3,812	10.7	278	0.8	809	2.3	381	1.1	2,076	5.8
4,467	12.9	4,333	12.5	5,739	16.5	1,473	4.2	114	0.3	279	0.8	261	0.8	797	2.3
17	0.4	51	1.1	1,066 [a]	24.5	223	4.9	6	0.2	138	3.1	3	0.1	16	0.4
3	0.2	28	1.1	787	34.8	176	7.3	5	0.2	100	4.5	1	0.1	11	0.6
14	0.7	23	1.1	278	14.2	47	2.5	1	0.1	38	1.7	2	0.1	5	0.2
86,900	141.1	64,201	104.3	39,101	63.5	11,624	18.9	184	0.3	609	1.0	187	0.3	3,057	5.0
37,638	122.9	39,208	128.0	30,916	101.0	9,293	30.3	115	0.4	437	1.4	120	0.4	2,238	7.3
49,262	159.1	24,993	80.8	8,185	26.5	2,331	7.5	69	0.2	172	0.6	67	0.2	819	2.6
558				4,408		714		461 [b]				—			

Note : a) Includes unknown sex
b) Includes X20 – X29 (ICD –10): Contact With Venomous Animals and Plants

3 – 3 Deaths and Death Rates by Sex Cause (ICD-9/ICD-10) (Contd.)

	Year	Sex	E49, E520, E522, E529 Rest of W00 – X59 All Other Accidents Including Late Effects		E53 Y40 – Y84 Drugs, Medicaments Causing Adverse Effects in Therapeutic Use		E54 X60 – X84 Suicide and Self-inflicted Injuries		E55 X85 – Y09 Homicide & Injuries Inflicted by Other Persons		E56 Y10 – Y36, Y85 – Y98 Other Violence	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1999	T	—		—		2	0.6	4	1.2	11 [a]	3.3
		M	—		—		2	1.1	2	1.1	8	4.6
		F	—		—		—		2	1.3	3	1.9
INDONESIA	1997	T	—		5		10		36		565	
	1998	T	—		6		4		21		457	
JAPAN	1998	T	11,813	9.4	221	0.2	31,755	25.4	808	0.6	2,641	2.1
		M	7,252	11.8	134	0.2	22,349	36.5	475	0.8	1,702	2.8
		F	4,561	7.1	87	0.1	9,406	14.7	333	0.5	939	1.5
	1999	T	12,537	10.0	255	0.2	31,413	25.0	788	0.6	2,707	2.2
		M	7,707	12.6	133	0.2	22,402	36.5	474	0.8	1,709	2.8
		F	4,830	7.5	122	0.2	9,011	14.1	314	0.5	998	1.6
MALAYSIA	1998	T	527	2.4	20	0.1	200	0.9	141	0.6	2,115	9.5
		M	415	3.7	11	0.1	155	1.4	108	1.0	1,730	15.2
		F	112	1.0	9	0.1	45	0.4	33	0.3	385	3.6
PHILIPPINES	1996	T	4,935	7.1	1,339	1.9	890	1.3	11,894	17.0	1,040	1.5
		M	3,619	10.2	1,142	3.2	620	1.7	11,027	31.0	875	2.5
		F	1,316	3.8	197	0.6	270	0.8	867	2.5	165	0.5
SINGAPORE	1999	T	67	0.8	2	0.1	309	8.6	52	1.0	250 [b]	5.4
		M	58	1.1	1	0.1	205	11.6	40	1.6	190	7.8
		F	9	0.5	1	0.1	104	5.6	12	0.3	59	3.1
THAILAND	1999	T	5,586	9.1	43	0.1	5,290	8.6	3,966	6.4	8.555	13.9
		M	4,537	14.8	23	0.1	4,080	13.3	3,376	11.0	6,697	21.9
		F	1,049	3.4	20	0.1	1,210	3.9	590	1.9	1,858	6.0
VIETNAM	1996	T					321					

Note : a) Including all other accidents inculding late effects
b) Includes unknown sex

3 – 4 Number and Percentage of Deaths Medically Certified and not Medically Certified

	Year	Deaths Medically Certified		Deaths not Medically Certified		Total
		Number	Percentage (%)	Number	Percentage (%)	Number
BRUNEI						
INDONESIA						
JAPAN (1)	1998 1999	936,484 982,031	100.0 100.0	— —	— —	936,484 982,031
MALAYSIA (2)	1998	43,514	44.4	54,392	55.6	97,906
PHILIPPINES (3)	1995 1996	a) 135,250 a) 147,972	41.7 43.0	b) 189,147 b) 196,391	58.3 57.0	324,397 344,363
SINGAPORE (4)	1999	15,012	96.8	504	3.2	15,516
THAILAND (5) c)	1999	90,538	25.0	272,069	75.0	362,607
VIETNAM						

Source : (1) Ministry of Health and Welfare
(2) ***Vital Statistics Malaysia,*** Department of Statistics
(3) National Statistics Office
(4) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(5) Ministry of Public Health

Note : a) Deaths medically attended
b) Deaths not medically attended
c) Includes deaths certified by other health personnel such as nurses and health officers

4. Child and Maternal Health

4 – A A Brief Description of Trends in Infant Mortality and Maternal Mortality

BRUNEI DARUSSALAM

Infant Mortality:

The infant mortality rate which stood at 38.4 per 1,000 live-births in 1971 significantly dropped to 5.9 in 1999. The drop was as high as 85%.

Maternal Mortality:

The maternal mortality ratio stood at 80 per 100,000 live-births in 1971. It dropped by 50% in 1998. No maternal death was experianced during 1999.

INDONESIA

Infant Mortality:

Since the late 1960s, the estimated infant mortality rate in Indonesia declined from 145 to 51 deaths per 1,000 live-births in 1999. The 1992 Household Health Survey found that infant mortality was mainly caused by acute upper respiratory tract infection (36%), diarrheal diseases (11%), and neonatal tetanus (9.8%). Income and nutritional gains, along with the fertility decline probably also account for much of the decline of the rate. The 1994 Demographic and Health Survey found that infant mortality was the lowest for children of mothers who received both antenatal care and assistance at delivery from medical professionals, and the highest for children whose mothers had neither antenatal care nor medical assistance at delivery (39 and 107 deaths per 1,000 live-births, respectively).

Child (under five years) Mortality:

For children under five years, the mortality rate declined from 111 deaths per 1,000 live-births in 1986 to 81 in 1995. The 1992 Household Health Survey found that child mortality was mainly caused by diarrhea (23%) and acute upper respiratory tract infection (13%).

Maternal Mortality:

There are no accurate measures of the national level of maternal mortality, bacause 75% of all deliveries take place at home and the related deaths are not registered. The Household Health Survey findings suggest a decline from 420 in 1992 to the currently estimated range of 312–385 deaths per 100,000 live-births. The relatively high rate is believed to be attributed to the low frequency of deliveries attended by health professionals (35% in the rural and 65% in the urban areas). Furthemore, the high percentage of pregnant women with anemia (about 55%) may aggravate the problem of maternal deaths.

JAPAN

Infant Mortality:

The infant mortality rate has been among the lowest in the world. In 1999, the number of infant deaths was 4,010 and the infant mortality rate was 3.4 (per 1,000 live-births).

Maternal Mortality:

The maternal mortality rate has been gradually decreasing. In 1999, the number of maternal deaths was 72 and the maternal mortality rate

was 5.9 (per 100,000 live-births).

MALAYSIA

Infant and Child Mortality:

The perinatal and neonatal mortality rates which reflect the level of health of expectant mothers as well as the level of antenatal care of the mother have improved over the years. In 1991, the perinatal mortality rate was 12.3 per 1,000 live-births and stillbirths but in 1998 it dropped to 7.5. Likewise, the neonatal mortality rate dipped from 8.2 per 1,000 live-births to 5.0.

The infant mortality rate has improved, which reflects, not only the magnitude of the health problems directly responsible for the death of infants such as diarrhoeal diseases, respiratory infections and malnutrition, but also the level of living in general. Malaysia's infant mortality rate is now among the lowest in the Asian region: in 1991 it was 12.5 per 1,000 live-births, and by 1998 it was down to 8.1.

The relatively good survival rate of Malaysian children has accounted in no small measure for the low toddler mortality at present. In 1998, the under-5 mortality rate was 12.7 per 1,000 live-births for male and 10.5 for female.

Maternal Mortality:

The maternal mortality rate reflects the risks to mothers during pregnancy and at childbirth. The percentage of safe deliveries, that is, deliveries attended by trained personnel was 95.2% in 1996. The maternal mortality rate in 1998 was extremely low at 0.2 per 1,000 livebirths.

PHILIPPINES

Infant Mortality:

In 1995, there were 30,631 infant deaths, with an Infant Mortality Rate (IMR) of 18.6 per 1,000 live-births which was slightly lower than that of the previous year. However, for 1996, the IMR was at 19.0 per 1,000 live-births.

Maternal Mortality:

The Maternal Mortality Rate (MMR) was 0.9 per 1,000 live-births in 1995 and 1.0 per 1,000 live-births in 1996.

SINGAPORE

Infant Mortality:

Singapore's infant mortality remained very low at 3.3 per 1,000 resident live-births in 1999. This was lower than the rate of 4.1 per 1,000 resident live-births reported in 1998.

Maternal Mortality:

In 1999, only four maternal deaths were registered.

THAILAND

Infant Mortality:

The infant mortality rate has continuously declined due to the increased health care coverage and utilization, the improved socioeconomic status and the Extended Programme on Immunization. The rate estimated for 1995–1996 from the survey of population change was 26.1 per 1,000 live-births. The rate obtained from the civil registration in 1999 was 6.5, due to underregistration.

Maternal Mortality:

The maternal mortality rate has also decreased rapidly. The rate was 12.0 per 100,000 live-births in 1999.

VIETNAM

After a long, devastating war and under the permanent pressure of high population growth, the health and nutritional status of children and mothers is poor. However, the Extended Programme on lmmunization has been a remarkable success, producing a high coverage and leading to a net reduction of morbidity and mortality from the targeted diseases.

Infant Mortality:

The infant mortality rate stood at 45.1 per 1,000 live-births in 1994, and according to the survey conducted by UNFPA decreased to 37.0 per 1,000 live-births in 1998.

Maternal Mortality:

The maternal mortality rate was 1.1 per 1,000 live-births in 1996, and decreased to 1.0 per 1,000 live-births in 1997.

4 – 1 Fetal, Infant, Neonatal, Post-neonatal and Perinatal Mortality

(per 1,000 live-births)

	Year	Fetal Mortality		Infant Mortality		Neonatal Mortality		Post-neonatal Mortality		Perinatal Mortality	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI (1)	1999	43	5.8	44	5.9	25	3.4	19	2.6	65	8.8
INDONESIA (2)	1999				46						
JAPAN (3)	1999	5,567	4.7	4,010	3.4	2,137	1.8	1,873	1.6	7,102	6.0
MALAYSIA (4)	1998	2,041	3.7	4,481	8.1	2,752	5.0	1,729	3.4	4,151	7.5
PHILIPPINES (5) (6)	1995	9,731	5.9	30,631	18.6	16,112	9.8	14,519	8.8	22,395	13.6
	1996	9,693	6.0	30,550	19.0	16,101	10.0	14,449	9.0	22,528	14.0
SINGAPORE (7)	1999	125	2.9	150	3.3	86	2.0	64	1.5	183	4.2
THAILAND (8) a)	1999			5,003	6.5	1,811	2.3	3,192	4.1	1,051	1.4
VIETNAM (2)	1993	b) 5,916	3.3		(9) c) 37.0	43,560	24.2	27,000	15.0		

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Ministry of Health
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) ***Vital Statistics Malaysia,*** Department of Statistics
(5) ***Philippine Health Statistics,*** National Epidemiology Center, Department of Health
(6) National Statistics Office
(7) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(8) Ministry of Interior
(9) Based on the survey conducted by UNFPA

Note : a) 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.
b) For 1996
c) For 1998

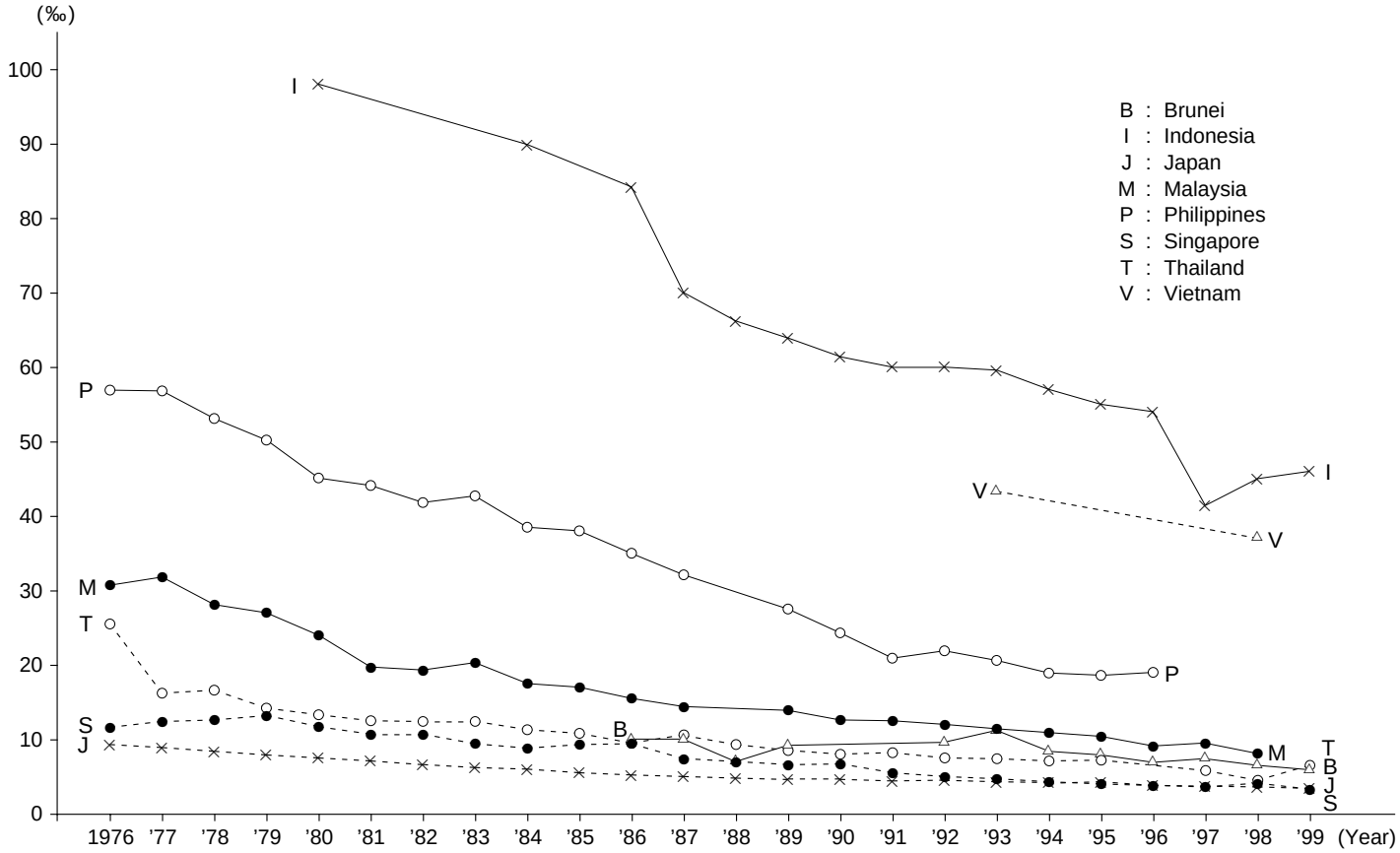
4 – 2 Infant Mortality by Age and Sex

	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 (1)	1999	T	44	11	11	3	19	—	5.9	1.5	1.5	0.4	2.6	—
		M	26	8	6	1	11	—	6.7	2.1	1.5	0.3	2.8	—
		F	18	3	5	2	18	—	5.1	0.9	1.4	0.6	2.3	—
INDONESIA (2)	1999	T							a) 46					
		M							52					
		F							41					
JAPAN (3)	1999	T	4,010	1,143	392	602	1,873	—	3.4	1.0	0.3	0.5	1.6	—
		M	2,224	611	208	347	1,058	—	3.7	1.0	0.3	0.6	1.7	—
		F	1,786	532	184	255	815	—	3.1	0.9	0.3	0.4	1.4	—
MALAYSIA (4)	1998	T	4,481	2,166		636	1,729	—	8.1	3.9		1.1	3.1	—
		M	2,533	1,234		359	940	—	8.8	4.3		1.3	3.3	—
		F	1,948	882		277	789	—	7.3	3.3		1.0	3.0	—
PHILIPPINES (5) (6)	1995	T	30,631	12,664		3,448	14,519	—	18.6	7.7		2.1	8.8	—
	1996		30,550	12,835		3,266	14,449	—	19.0	8.0		2.0	9.0	—
SINGAPORE (7)	1999	T	b) 150	b) 39	19	28	64	—	3.3	0.9	0.4	0.6	1.4	—
		M	78	18	7	16	37	—	3.2	0.7	0.3	0.6	1.5	—
		F	71	20	12	12	27	—	3.4	1.0	0.6	0.6	1.3	—
THAILAND (8)	1999	T	5,003	543	508	760	3,192	—	6.5	0.7	0.7	1.0	4.1	—
		M	2,765	284	290	434	1,757	—	6.9	0.7	0.7	1.1	4.4	—
		F	2,238	259	218	326	1,435	—	5.9	0.7	0.6	0.9	3.8	—
VIETNAM (9)	1998	T							c) 37.0					

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Ministry of Health
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) ***Vital Statistics Peninsular Malaysia, Sabah and Sarawak,*** Department of Statistics
(5) ***Philippine Health Statistics,*** National Epidemiology Center, Department of Health
(6) National Statistics Office
(7) ***Report on Registration of Births and Deaths,*** Registry of Births and Deaths
(8) Health Information Center, Ministry of Public Health
(9) Ministry of Health

Note : a) Estimated
b) Includes unknown sex
c) Based on the survey conducted by UNFPA

Fig. 6 Trends in Infant Mortality Rates (per 1,000 live-births)



4 – 3 Under-5 Mortality Rate by Sex (per 1000 live-births)

	Year	Male	Female
BRUNEI	1994–1996	11.0	9.4
INDONESIA	1999	66.7	55.8
JAPAN	1999	5.1	4.3
MALAYSIA	1998	12.7	10.5
PHILIPPINES	1995	72.2	69.6
SINGAPORE	1998	4.7	4.1
THAILAND	1995–1996	35.5	31.2
VIETNAM	1989	64.8	68.4

Source : Table 2–7. See also Notes on Tables and Graphs for explanation.

4 – 4 Maternal Mortality Rates

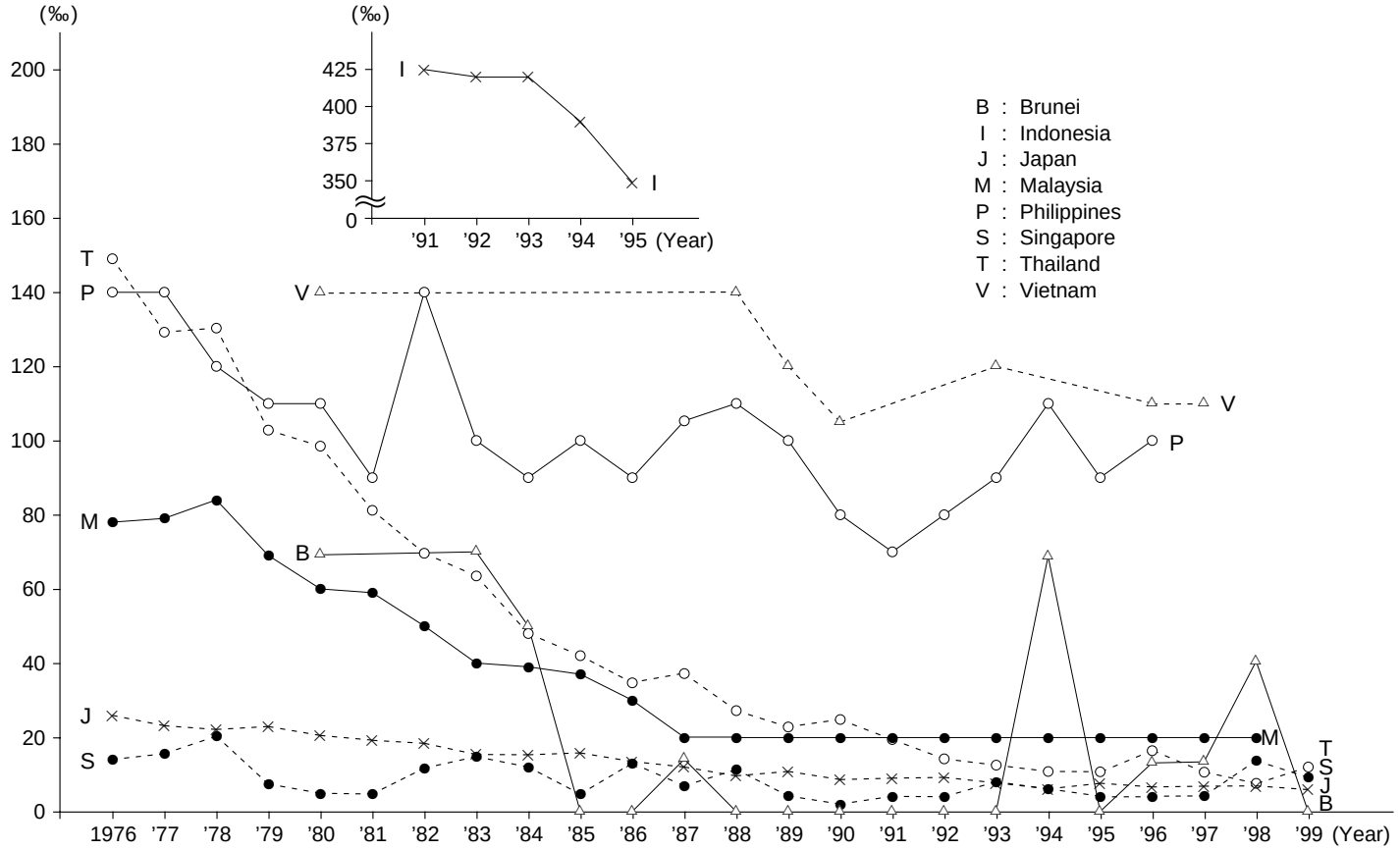
(per 100,000 live-births)

	1970	1975	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI (1)			69.2	—	—	—	—	—	—	68.8	—	13.1	13.4	40.5	—
INDONESIA (2)							425	420	420	390	a) 312–385				
JAPAN (3)	50.0	28.7	20.5	15.8	10.8	8.6	9.0	9.2	7.7	6.1	7.6	6.6	6.8	b) 7.4	6.7
MALAYSIA (4)	160	88	60	37	20	20	20	20	20	20	20	20	20	20	
PHILIPPINES (5) (6)	190.0	140.0	110.0	b) 100.0	b) 100.0	b) 80.0	b) 70.0	b) 80.0	b) 90.0	b) 110.0	b) 90.0	b) 100.0			
SINGAPORE (7)	32.7	30.0	4.9	4.7	4.2	2.0	4.1	4.0	8.0	6.1	4.1	4.1	4.2	13.7	9.2
THAILAND (8)	226.1	171.7	98.5	42.0	22.8	24.8	19.4	14.2	12.5	10.8	10.7	16.4	10.6	7.6	12.0
VIETNAM (9)			140		120	105			120			110	100		

Source : (1) Registration of Birth and Death and Adoptions, Department of Immigration and Registration of Nationals, Ministry of Home Affairs and Department of Economic Planning and Development, Ministry of Finance
(2) Central Bureau of Statistics
(3) ***Vital Statistics Japan,*** Ministry of Health and Welfare
(4) Department of Statistics
(5) ***Philippine Health Statistics,*** National Epidemiology Center, Department of Health
(6) National Statistics Office
(7) ***Report on the Registration of Births and Deaths,*** Registry of Births and Deaths
(8) Health Information Center, Ministry of Public Health
(9) Ministry of Health

Note : a) The figure of 312 is based on reports from midwives and that of 385 has been estimated from the Household Survey.
b) Revised figure

Fig. 7 Trends in Maternal Mortality Rates (per 100,000 live-births)



4 – 5 Family Planning Methods Used

(%)

	Year	Reversible				Irreversible		Natural [a]	Others [b]
		Oral Contraceptive	IUD	Injection	Condom	Sterilization			
BRUNEI									
INDONESIA (1)	1998	28.5	14.3	40.1	0.7	4.8		1.3	10.3
	1999	31.3	13.6	38.4	0.6	5.7		1.4	9.0
JAPAN (2) c)	1998	1.1	3.1	—	77.8	5.8		16.6	9.3
MALAYSIA (3)	1998	74.5	4.4	2.4	10.3	6.0		—	2.4
PHILIPPINES (4)	1997	45.7	10.7	14.1	12.5	2.6 [d]	0.2 [e]	3.4	10.8 [f]
	1998	44.3	11.1	14.9	11.3	2.4	0.1	2.9	12.8
SINGAPORE (5) c)	1997	15.7	8.7	1.1	35.7	25.5		26.5	2.2
THAILAND (6)	1999	26.1	4.0	19.5	0.9	22.0 [d]	1.9 [e]	—	27.5
VIETNAM (7)	1996	5.3	55.8	0.4	7.1	8.7		21.3	1.4

Source : (1) Family Planning Coordination Board
(2) ***The Future of the Family: Beyond Gender, Summary of Twenty-fourth National Survey on Family Planning,*** The Population Problems Research Council, The Mainichi Shimbun, Tokyo, Japan
(3) National Population and Family Development Board Malaysia
(4) Field Health Service Information System, National Epidemiology Center, Department of Health
(5) Population Planning Section, Ministry of Health
(6) ***Report on Health Activity,*** Bureau of Health Policy and Planning, Ministry of Public Health
(7) ***Helth Statistics Yearbook,*** Health Statistics and Informatic Division, Ministry of Health

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

4 – 6 Women Receiving Prenatal Care

	Year	Percentage of Pregnant Women Receiving Prenatal Care at least 4 Times from Trained Health Personnel during Entire Pregnancy
BRUNEI [a]	1999	86
INDONESIA	1999	75.7
JAPAN		
MALAYSIA	1998	74.1 [b]
PHILIPPINES [1]	1998	59.4 [c]
SINGAPORE	1999	100
THAILAND [2]	1999	85.7
VIETNAM	1995	54.9

Source : Ministry of Health of each country
(1) Field Health Service Information System, National Epidemiology Center, Dapartment of Health
(2) Report on Health Activity, Bureau of Health Policy and Planning, Ministry of Public Health

Note : a) Coverage of average number of mothers (1st visit) by Public Health Facilities
b) 1 time
c) Incomplete Report

5. Morbidity from Infectious Diseases

5 – A List of Notifiable Infectious Diseases

ICD-9/ICD-10 Categories	Brunei 1999	Indonesia 1997	Japan 1999	Malaysia 1999	Philippines 1997/1998	Singapore 1999	Thailand 1999	Vietnam 1998
001/A00 Cholera	√	√	√	√	√	√	√	√
002/A01 Typhoid and Paratyphoid Fevers	√	√	√	√	√	√	√	√
003/A02 Other Salmonella Infections	√		√ a)	√	√		√	
004, 006/A03, A06 Shigellosis	√		√					
008/A04 – A09 Intestinal Infections due to Other Organisms	√							
010 – 018/A5 – A19 Tuberculosis	√	√	√	√	√	√	√	√
020/A20 Plague	√	√	√	√		√		√
022/A22 Anthrax		√	√ a)				√	
030/A30 Leprosy	√	√		√	√	√	√	√
032/A36 Diphtheria	√	√	√	√	√	√	√	√
033/A37 Whooping Cough	√	√	√ a)	√	√		√	√
034/A38, J02.0 Streptococcal Sore Throat and Scarlet Fever			√ a)				√	
036/A39 Meningococcal Infection			√ a)				√	
037, 771.3 b)/A33 – A35 Tetanus	√	√	√ a)	√	√		√	√ c)
045/A80 Acute Poliomyelitis	√	√	√	√	√	√		√
052/B01 Chickenpox	√		√ a)		√	√	√	
055/B05 Measles	√	√	√ a)	√	√	√	√	√
060/A95 Yellow Fever	√		√ a)	√		√		
061/A90 Dengue	√	√	√	√	√	√	√	√
062/A83 Mosquito-borne Viral Encephalitis	√		√	√		√	√	√
070/B15 – B19 Viral Hepatitis	√	√	√ a)	√	√	√	√	√
071/A82 Rabies		√	√ a)	√	√		√	√

Note : a) Sentinel surveillance only
b) Four-digit subcategory
c) New born only

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

ICD-9/ICD-10 Categories	Brunei 1999	Indonesia 1997	Japan 1999	Malaysia 1999	Philippines 1997/1998	Singapore 1999	Thailand 1999	Vietnam 1998
072/B26 Mumps	√		√ a)			√	√	
081/A75.1 – A75.9 Other Typhus	√		√ a)	√			√	
084/B50 – B54 Malaria	√	√	√ a)	√	√	√	√	√
087/A68 Relapsing Fever			√ a)	√				
090/A50 Congenital Syphilis	√	√	√ a)	√	√	√	√	
098/A54 Gonococcal Infections	√	√	√ a)	√	√	√	√	√
099/A55 – A64 Other Venereal Diseases	√		√ a) b)	√ c)		√ d)	√	√
100/A27 Leptospirosis	√		√ a)				√	
102/A66 Yaws							√	
120/B65 Schistosomiasis [Bilharziasis]		√			√			
124/B75 Trichinosis							√	
125/B72, B74 Filarial Infection and Dracontiasis	√		√ a) e)					
279.5/B20 – B24 AIDS (HIV Infections)	√	√	√ a)	√	√	√	√	√
487/J10, J11 Influenza		√	√ a)		√		√	

Note : a) Sentinel surveillance only
b) Chancroid + lymphogranuloma inguinale
c) Chancroid
d) All sexually transmitted diseases
e) Filariasis only

5 – B Infectious Diseases Specified by Immunization Programme

	Brunei 1997/1998	Indonesia 1997	Japan 1999	Malaysia 1999	Philippines 1996	Singapore 1999	Thailand 1999	Vietnam 1998
Cholera	√	√			√		√	√
Diphtheria	√	√	√	√	√	√	√	√
Measles	√	√	√	√	√	√	√	√
Mosquito-borne Viral Encephalitis			√				√	
Mumps	√					√	√	
Poliomyelitis	√	√	√	√	√	√	√	√
Rubella	√		√	√ a)		√	√	
Tetanus	√	√	√	√	√	√	√	√
Tuberculosis (BCG)	√	√	√	√	√	√	√	√
Typhoid and Paratyphoid Fever	√	√			√		√	√
Whooping Cough	√	√	√	√	√	√	√	√

Note : a) Women only

5 – 1 Morbidity Statistics (ICD-9/ICD-10)

	ICD – 9 ICD – 10 [a]	001 A00	002 A01	004, 006 A03, A06	003, 005 A02, A04, A05	010 – 018 A15 – A19	030 A30
	Year	Cholera	Typhoid and Paratyphoid Fever	Amebiasis and Bacillary Dysentery	Food Poisoning (Bacterial)	Tuberculosis of All Forms	Leprosy
BRUNEI (1)	1999	93	3	3	114	267	1
INDONESIA (2)	[c] 1998	985	75,884	11,548	11,872	304,787	16,220
JAPAN (3) (4) (5)	[d] 1999	40	113	893	30,618	44,016	
MALAYSIA (6)	1999	1,074	850	222	3,429	14,907	434
PHILIPPINES (7)	1997 1998	418 515	12,435 15,507		1,024 1,105	171,292 151,650	1,655 1,739
SINGAPORE (8)	1999	11	63	25	1,044	2,419	22
THAILAND (9)	1999	—	6,170	3,225	110,291	31,081	526
VIETNAM (10)	1998	13	20,881	93,442		[f] 70,349	[g] 21,845

Source : (1) Disease Control Unit, Health Department, Minitry of Health
(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 and Welfare
(6) Information and Documentation System Unit, Ministry of Health
(7) Field Health Service Information System, Health Intelligence Service, Department of Health
(8) Ministry of the Environment and Ministry of Health
(9) Epidemiology Division, Ministry of Public Health
(10) Ministry of Health

032 A36	052 B01	070 B15 – B19	071 A82	084 B50 – B54	487 J10, J11	033 A37	036 A39	037, 771.3 [b] A33 – A35	055 B05
Diphtheria	Chickenpox	Viral Hepatitis	Rabies	Malaria	Influenza (Grippe)	Whooping Cough	Meningococcal Infection	Tetanus	Measles
—	2,556	1		32		8		—	23
835		20,953	204	39,972	122,544		1,400	1,770	4,703
1	[e] 164,568	1,488	—	111	[e] 67,718	[e] 2,685	10	68	[e] 6,059
6	—	6,139	0	5,875		6		24	1,228
53 48	64,208 32,613	5,397 5,664	5,810 455	69,248 70,859	574,643 563,674	997 673	52 44	792 391	38,225 23,591
—	31,592	248	—	316		1	6		65
51	39,586	5,007	68	76,167	53,035	47	40	257	3,312
99	2,648	12,924	119	[f] 532,860	[g] [h] 1,200,491	1,232	1,394	756	12,580

Note : a) ICD-10: Brunei, Japan, Thailand and Vietnam
b) Four-digit category
c) Revised date
d) From April to December 1999
e) Cases treated in large hospitals only
f) For 1996
g) Data on the end of 1998
h) Influenza Syndrome

5 – 1 Morbidity Statistics (ICD-9/ICD-10) (Cond.)

		056 B06	072 B26	279.5 a) B20 – B24	045 A80	047 – 049, 062 – 064 A83 – A89	060, 061, 065 A90, A91	125 B74	120 B65	090 – 097 A50 – A53	098 A54	099 A55 – A64
		Rubella	Mumps	AIDS (HIV)	Acute Polio-myelitis	Viral Meningitis and Encephalitis	Viral Hemor-rhagic Fever	Filariasis	Schisto-somiasis	Syphilis	Gonococcal Infections	Other Venereal Diseases
BRUNEI (1)	1999	3	57	1	—	1	7	—		17	146	10
INDONESIA (2)	1998	246	2,399	295	690	447	39,405	303	275	3,778	4,843	1,990
JAPAN (3) (4) (5)	1999	3,015	70,010	598	—	5	9	—		749	b) 11,754	b) 34,555
MALAYSIA (6)	1999			1,200	—	275	c) 605	—	—	2,675	2,392	383
PHILIPPINES (7)	1997 1998			117 190	8 13			1,025 391	12,524 10,986	210 105	2,006 2,740	
SINGAPORE (8)	1999	432	6,384	d) 140	—	18	1,355			1,141	1,739	3,438
THAILAND (9)	1999	878	8,628	24,904	—	2,970	24,826	e) 601	—	1,731	3,322	11,411
VIETNAM	1998		23,648	e) 1,089	0	3,668	f) 234,920			3,088	6,859	108,152

Note : a) Four-digit category
b) Cases treated in large hospitals only
c) Refer to dengue hemorrhagic fever
d) Cumulative AIDS patients
e) Cumulative
f) Dengue fever and dengue hemorrhagic fever

5 – 2 Percentage of Infants under 1 Year Who Are Fully Immunized Against Target Diseases

	Year	Diphtheria	Pertussis	Tetanus	Poliomyelitis	Measles	Tuberculosis
BRUNEI (1)	1998		97.4		97.8	100.0	96.2
INDONESIA (2)	a) 1998	98.6	93.3	92.4	99.8	90.9	
	1999	97.0	90.9	88.4	98.9	88.3	
JAPAN (3)	1996		a) 94.4		b) 96.4	c) 91.7	
MALAYSIA (4)	1998		94.1		93.4	86.2	100
PHILIPPINES (5)	1997		88.9		88.9	88.9	88.9
	1998		84.8		84.8	84.8	84.8
SINGAPORE (6)	1999		94		95	d) 86	98
THAILAND (7)	1999		92.1		92.2	84.5	95.6
VIETNAM (8)	1995		93.4		93.6	98.5	95.7

Source : (1) Ministry of Health
(2) Directorate General of Communicable Disease Control and Environmental Health, Ministry of Health
(3) Ministry of Health and Welfare
(4) Ministry of Health
(5) Field Health Service Information System, Health Intelligence Service, Department of Health
(6) Family Health Service, Ministry of Health
(7) ***Report on Health Activity,*** Bureau of Health Policy and Planning, Ministry of Public Health
(8) Ministry of Health

Note : a) Revised data
b) Including children aged over 1 year. The denominator is population under 1 year.
c) 3 months to 1.5 years old children
d) 1 to 2 years old children
e) 2 years old children

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 (1)	1998	1,411			41.2			29.1		
JAPAN (2)	1998	1,979			79.2	38.4	42.8	57.9	28.7	29.2
MALAYSIA										
PHILIPPINES (3)	1993	1,684	1,366 a)	318 a)	49.9	29.8	20.1	28.0	16.0	12.0
SINGAPORE (4) b)	1998	1,929			72.6			66.6		
THAILAND (5)	1995	1,751			51.1	21.4	29.7	45.6		
VIETNAM (6)	1996	1,900	1,662	238	50	35.4	14.6	25.7	11.8	

Source : (1) ***Welfare Indonesia,*** Central Bureau of Statistics
(2) ***National Nutrition Survey,*** Health Promotion and Nutrition Division, Ministry of Health and Welfare
(3) ***Fourth National Nutrition Survey 1993,*** Food and Nutrition Research Institute, Department of Science and Technology
(4) ***National Nutrition Survey 1998,*** Department of Nutrition, Ministry of Health
(5) ***The 4th National Nutrition Survey 1995,*** Nutrition Division, Ministry of Public Health
(6) Ministry of Health

Note : a) Revised figure
b) Figures represent meen intake for Singapore adults aged 18–69 years old.

6 – 1 Per Capita Food Intake (Contd.)

	Year	Calcium (mg / day)	Iron (mg / day)	Vitamin A (μg / day)	Vitamin B_1 (mg / day)	Vitamin B_2 (mg / day)	Vitamin C (mg / day)	Carbohydrate (g / day)
BRUNEI								
INDONESIA	1988		41.1	a) 21,539.7				
JAPAN	1998	568	11.4	a) 2,701	1.16	1.42	125	271
MALAYSIA								
PHILIPPINES	1993	39.0	10.1	b) 392	0.67	0.56	47	302
SINGAPORE c)	1998	482	16.9	702			88	259.7
THAILAND	1995	344	18.1	b) 677	0.9	1.1	95	276.9
VIETNAM								

Note : a) Unit = IU
b) Unit = Retinol Equivalent, mcg.
c) Figures represent mean intake for Singapore adults aged 18–69 years old.

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

(cm)

	Population or Place	Year	Sex	Age					
				Birth	4 weeks	3 months	6 months	9 months	12 months
BRUNEI			M F						
INDONESIA (1)	National	1994	M F	49.4 48.9					
JAPAN (2)	National	1990	M F	49.6 48.9	56.7 55.6	63.2 61.5	68.5 66.8	72.0 70.6	75.4 74.2
MALAYSIA			M F						
PHILIPPINES (3)	National	1993	M F	51.3 51.1	57.5 56.7	64.1 62.0	67.7 68.0	72.0 70.8	a) 77.6 76.6
SINGAPORE			M F						
THAILAND (4)	National	1995	M F	53.3 50.9	54.0 53.4	60.8 59.2	66.0 64.8	71.4 69.5	74.2 73.4
VIETNAM	National	1984	M F			59.0 57.3	63.5 63.6	68.1 66.1	70.9 68.8

Source : (1) Ministry of Health
(2) Ministry of Health and Welfare
(3) ***Fourth National Nutrition Survey 1993,*** Food and Nutrition Research Institute, Department of Science and Technology
(4) ***National Food and Nutrition Survey,*** Department of Health, Ministry of Public Health

Note : a) For 1–1.99 years old

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

(kg)

	Population or Place	Year	Sex	Age					
				Birth	4 weeks	3 months	6 months	9 months	12 months
BRUNEI			M F						
INDONESIA (1)	National	1994	M F	3.1 3.0					
JAPAN (2)	National	1990	M F	3.2 3.1	5.1 4.7	6.9 6.3	8.1 7.5	9.0 8.4	9.6 9.0
MALAYSIA (3)	Peninsular Malaysia	1998	T	3.2					
PHILIPPINES (4)	National	1993	M F	3.5 3.4	5.3 4.8	6.6 6.1	7.4 7.2	8.1 7.8	a) 9.4 9.0
SINGAPORE (1)	National	1999	M F	3.1 3.1					
THAILAND (5)	National	1995	M F	3.9 3.7	4.5 4.4	6.7 5.7	7.4 7.1	8.3 7.7	9.2 8.6
VIETNAM			M F						

Source : (1) Ministry of Health
(2) Ministry of Health and Welfare
(3) Department of Statistics
(4) ***Fourth National Nutrition Survey 1993,*** Food and Nutrition Research Institute, Department of Science and Technology
(5) ***The 4th National Nutrition Survey 1995,*** Department of Health, Ministry of Public Health

Note : a) For 1–1.99 years old

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

(cm)

	Population or Place	Year	Sex	Age					
				Birth	4 weeks	3 months	6 months	9 months	12 months
BRUNEI			M F						
INDONESIA (1)	National	1994	M F	32.5 32.4					
JAPAN (2)	National	1990	M F	32.2 32.0	38.6 37.6	42.2 41.0	44.2 43.1	45.6 44.5	46.5 45.4
MALAYSIA			M F						
PHILIPPINES (3)	National	1998	M F	34.5 34.3	37.8 36.8	41.7 40.0	43.5 42.1	44.1 43.2	46.1 45.0
SINGAPORE			M F						
THAILAND (4)	National	1995	Total		36.3	40.8	42.5	43.8	45.8
VIETNAM			M F						

Source : (1) Ministry of Health
(2) Ministry of Health and Welfare
(3) Food and Nutrition Research Institute, Department of Science and Technology
(4) ***The 4th National Nutrition Survey 1995,*** Department of Health, Ministry of Public Health

6 – 5 Mean and Standard Deviation[a] of Height by Age (1–18 years)

	Population or Place	Year	Sex	Age						
				1	2	3	4	5	6	7
BRUNEI (1)	National	1997	M F	81.9 (5.3) 77.2 (13.0)	91.4 (4.6) 91.4 (5.4)	99.3 (4.8) 99.1 (7.0)	106.6 (3.3) 106.3 (4.9)	112.7 (5.4) 111.3 (6.5)	119.0 (5.9) 116.2 (5.5)	122.5 (5.3) 123.0 (4.7)
INDONESIA (2)	National	1994	M F					107.1 106.1	109.7 108.7	112.2 111.3
JAPAN (3)	National	1998	M F	79.6 (4.0) (4) 78.0 (4.6)	88.5 (4.9) (4) 87.3 (4.8)	96.1 (4.6) (4) 95.6 (4.0)	103.6 (4.7) (4) 102.9 (5.1)	110.8 (4.7) 110.0 (4.7)	116.8 (4.9) 115.9 (4.9)	122.5 (5.1) 121.7 (5.2)
MALAYSIA			M F							
PHILIPPINES (5)	National	1998	M F	77.3 (4.3) 75.9 (4.5)	85.1 (4.7) 84.3 (4.7)	92.0 (4.9) 91.1 (5.1)	98.0 (5.0) 97.2 (5.0)	103.8 (5.1) 103.1 (5.1)	109.3 (5.4) 109.2 (4.8)	115.5 (5.4) 115.0 (5.5)
SINGAPORE (6)	National	1999	M F						120.3 119.4	
THAILAND (7)	National	1995	M F		87.6 86.6	94.8 93.5	100.7 100.1	105.5 105.4	112.2 111.7	115.4 116.3
VIETNAM	National	1984	M F		77.7 (4.2) 76.7 (5.4)	86.6 (6.1) 84.8 (6.0)	92.2 (8.5) 91.8 (7.7)	97.6 (7.2) b) 97.3 (5.7)		

Source : (1) National Nutrition Survey, Ministry of Health
(2) ***Report on Height of School Entrance in Indonesia 1994/1995,*** Directorate of Community Nutrition, Ministry of Health
(3) ***School Health Examination Survey,*** Ministry of Education, Science, Sports and Culture
(4) ***National Nutrition Survey,*** Health Service Bureau, Ministry of Health and Welfare
(5) ***Fifth National Nutrition Survey 1998,*** Food and Nutrition Research Institute, Department of Science and Technology
(6) School Health Service, Ministry of Health
(7) ***The 4th National Nutrition Survey 1995,*** Department of Health, Ministry of Public Health

Note : a) Standard deviation: in brackets
b) 59 months old

(cm)

Age										
8	9	10	11	12	13	14	15	16	17	18
127.6 (5.3) 128.1 (5.5)	131.9 (7.2) 130.5 (6.3)	132.3 (6.1) 138.5 (5.8)	140.3 (7.4) 142.2 (8.4)	146.0 (10.4) 147.5 (7.4)	154.6 (7.6) 149.9 (5.5)	158.4 (10.3) 153.7 (5.7)	164.5 (8.7) 153.4 (5.9)	163.1 (5.4) 151.9 (6.5)		
115.0 114.0	117.9 117.0	121.3 120.1	123.7 122.9	a) b) 128.9 130.0		151.3 148.9	b) c) 155.2 149.7	b) c) 159.7 150.9	b) c) 161.3 151.6	b) c) 162.9 151.7
128.2 (5.4) 127.5 (5.5)	133.6 (5.7) 133.5 (6.2)	139.1 (6.2) 140.4 (6.7)	145.3 (7.1) 147.0 (6.6)	152.7 (8.0) 152.1 (5.9)	159.9 (7.6) 155.3 (5.4)	165.3 (6.7) 156.8 (5.2)	168.5 (5.9) 157.4 (5.2)	170.2 (5.8) 157.9 (5.3)	170.9 (5.8) 158.1 (5.2)	(4) 171.5 (5.3) 158.1 (5.9)
119.5 (5.6) 118.7 (5.9)	123.8 (5.6) 123.5 (5.8)	127.0 (4.9) 129.0 (6.4)	133.0 (6.8) 136.5 (7.5)	137.5 (8.3) 140.2 (7.8)	145.7 (8.8) 145.1 (6.6)	150.6 (8.9) 149.0 (6.1)	157.5 (7.5) 150.2 (5.6)	158.9 (7.0) 150.7 (5.6)	162.6 (6.7) 150.2 (5.2)	163.0 (5.9) 151.3 (5.5)
			148.8 150.0				170.1 159.1			
121.4 120.9	126.9	130.0 131.7	135.5 137.9	138.7 145.1	145.3 149.4	150.9 151.7	153.5 153.0	159.1 155.1	160.3 153.0	165.3 152.3
d) 119.3 (5.2) 119.6 (4.7)	d) 124.2 (4.6) 124.7 (4.4)	d) 128.3 (5.2) 129.6 (5.0)	d) 132.4 (5.5) 134.7 (12.6)	d) 138.2 (7.2) 141.1 (6.2)	d) 141.0 (6.7) 147.0 (6.0)	d) 149.0 (7.7) 150.8 (6.9)			e) 163.4 (5.0) 154.9 (4.3)	e) 163.6 (5.1) 153.2 (4.6)

Note : a) For 1993
b) West Sumatra, Central Java and West Nusa Tenggara
c) For 1989
d) For 1994. Thái Binh Province
e) For 1995. Students at four universities in North Vietnam

6 – 6 Mean and Standard Deviation[a)] of Weight by Age (1–18 years)

	Population or Place	Year	Sex	Age						
				1	2	3	4	5	6	7
BRUNEI			M F							
INDONESIA (1)	National	1977	M F		10.4 10.1	12.1 11.6	13.8 13.2	15.5 14.5	15.7 15.7	18.2 17.0
JAPAN (2)	National	1998	M F	10.8 (1.2) (3) 10.1 (1.3)	12.8 (1.7) (3) 12.0 (1.7)	14.8 (2.3) (3) 14.4 (1.7)	16.6 (2.1) (3) 16.5 (2.9)	19.2 (2.8) 18.9 (2.7)	21.7 (3.7) 21.3 (3.5)	24.4 (4.5) 23.8 (4.2)
MALAYSIA			M F							
PHILIPPINES (4)	National	1993	M F	9.4 8.9	11.5 10.8	13.0 12.6	14.6 14.1	16.0 15.6	17.5 17.2	19.2 19.1
SINGAPORE (5)	National	1999	M F						22.6 21.6	
THAILAND (6)	National	1995	M F		12.0 11.8	13.7 13.1	15.1 14.8	16.3 16.8	19.1 20.0	21.0 19.1
VIETNAM	Thái Binh Province	1994	M F							

Source : (1) Ohsawa's Laboratory, Otsuma Women's University
(2) ***School Health Examination Survey,*** Ministry of Education, Science, Sports and Culture
(3) ***National Nutrition Survey,*** Health Service Bureau, Ministry of Health and Welfare
(4) ***Fourth National Nutrition Survey,*** Food and Nutrition Research Institute, Department of Science and Technology
(5) School Health Service, Ministry of Health
(6) ***The 4th National Nutrition Survey 1995,*** Department of Health, Ministry of Public Health

Note: a) Standard deviation: in brackets
b) For 1995. Students at four universities in North Vietnam

(kg)

Age										
8	9	10	11	12	13	14	15	16	17	18
19.9 19.2	21.3 21.0	23.3 23.4	25.7 26.3	27.3 30.3	31.8 33.4	37.1 37.6	40.9 40.4	44.7 43.2	46.9 44.6	48.7 45.9
27.7 (5.5) 27.0 (5.1)	31.3 (6.8) 30.6 (6.3)	35.0 (7.8) 35.0 (7.3)	39.4 (9.0) 40.1 (8.3)	44.9 (9.9) 44.9 (8.5)	50.2 (10.3) 48.3 (8.2)	55.2 (10.4) 50.6 (7.9)	59.7 (11.1) 52.1 (8.0)	61.3 (10.3) 53.1 (7.9)	62.7 (10.4) 53.1 (7.9)	61.1 (7.9)[3] 52.3 (10.2)
21.3 21.0	23.4 23.5	25.2 26.0	27.6 29.1	31.0 33.4	34.7 37.9	39.8 40.8	44.4 44.6	49.0 46.8	52.0 46.5	54.0 46.0
			41.8 41.5				59.3 50.5			
21.8 21.7	25.0 24.4	27.0 27.4	28.9 30.5	32.8 35.8	34.9 39.0	43.1 41.4	43.1 45.1	47.7 47.5	47.1 50.2	53.4 51.9
20.9 (2.0) 20.3 (2.2)	22.1 (2.1) 22.0 (2.2)	23.9 (3.1) 23.7 (2.1)	26.0 (2.9) 25.1 (3.2)	28.6 (4.0) 28.8 (3.8)	30.6 (4.9) 33.1 (4.8)	36.0 (5.0) 37.7 (5.0)			49.5 (5.3)[b] 44.9 (3.9)	49.1 (5.3)[b] 44.0 (4.6)

7. Environmental Health and Socio-economic Situation

7 – 1 Housing Conditions

(%)

	Year		Percentage of Population Served with Safe Water	Percentage of Population with Sanitary Toilet	Lighting				
					Electricity	Pressure / Gas Lamp	Oil Lamp	Kerosene	Other
(1) BRUNEI	1991	Total	a) 96.0	a) 79.0	97.5			2.0	0.5
(2) INDONESIA	1999	Total	a) b) 18.6	a) c) 47.4	77.9	4.2	14.0		1.1
		Urban	36.4	50.0	96.0	1.0	1.8		0.2
		Rural	7.0	45.8	67.2	6.1	21.2		1.6
(3) JAPAN	1999	Total	d) 96.3	e) 97.9	100.0				
(4) MALAYSIA	1998	Total	92.8	98.4	f) 91	f) 2	f) 7	f) —	f) 1
(5) PHILIPPINES	1998	Total	a) 77.1	a) 70.2	a) g) 55.1	a) g) 1.7	a) g) 0.1	a) g) 49.6	a) g) 0.5
					79.2	1.2	0.1	19.3	0.2
					31.9	2.1	0.2	65.1	0.7
(6) SINGAPORE	1999	Total	100.0	100.0	100.0				
(7) THAILAND	1999	Total	89.9	98.3	e) 97.7				
(8) VIETNAM	1997–1998	Total	14.4	65.4	78.1	20.9			1.0

Source : (1) Department of Economic Planning and Development, Ministry of Finance
(2) ***Indonesia Demographic and Health Survey***
(3) Water Supply and Environmental Sanitation Department, Ministry of Health and Welfare
(4) Ministry of Health and Department of Statistics
(5) Field Health Service Information System, National Epidemiology Center, Department of Health and National Statistics Office
(6) Public Utilities Board, Ministry of the Environment and Singapore Power
(7) Ministry of Public Health
(8) Ministry of Health

Note : a) Percentage of households
b) Piped water and public tap
c) Flush/water and pit or moulded bucket
d) As of March 31, 1999
e) For 1996
f) For 1991
g) For 1990

7 – 2 Socio-economic Indicators

	Year	Adult Literacy Rate (%)	Year	Per Capita GDP (in US $) [a]	Year	Labour Force Participation Rate (%)
BRUNEI	1999	90.7 (1)	1999	13,569	1995	66.5 b)
INDONESIA (2)	1999	89.8	1999	621	1999	59.5
JAPAN	1999	99.0 (1)	1999	35,715 (4)	1999	62.9 (5) b)
MALAYSIA	1999	86.4 (1)	1999	3,238 (6) c)	1999	64.6 (6)
PHILIPPINES	1999	94.8 (1)	1999	1,051 (7) c)	1997 1998 1999	65.5 (8) 66.0 (8) 65.8 (8)
SINGAPORE (9)	1999	93.5 d)	1999	23,434 c)	1999	64.7 b)
THAILAND	1999	95.0 (1)	1999	1,193 (10)	1999	51.9 (10)
VIETNAM	1999	92.9 (1)	1995	279 (11) c)		

Source : (1) ***Human Development Report 2000,*** the United Nations Development Programme
(2) ***Statistical Year Book of Indonesia,*** Central Bureau of Statistics
(3) ***Comparative Economic and Financial Statistics, Japan and Other Major Countries 1998,*** Bank of Japan
(4) Department of National Accounts, Economic and Social Research Institute, Cabinet Office
(5) ***Annual Report on the Labour Force Survey,*** Statistics Bureau, Management and Coordination Agency
(6) ***Yearbook of Statistics, Malaysia***
(7) National Statistical Coordinating Board
(8) Labor Force Survey, National Statistics Office
(9) ***Year Book of Statistics, Singapore,*** Department of Statistics
(10) National Economic and Social Development Board
(11) ***Health Statistics Yearbook,*** Health Statistics and Informatic Division, Ministry of Health

Note : a) Figures for each country except Indonesia and Japan converted into US $ by SEAMIC / IMFJ, using yearly average exchange rates (except Vietnam) shown in ***IMF International Financial Statistics.*** For Vietnam, the rate at the end of period was applied.
b) Age 15 years and over
c) GNP
d) Refer to resident population aged 15 years and over

7 – 3 Expenditure of the Ministry of Health

	Fiscal Year	Total Health Budget (in US $)	Health Budget as % of National Budget	Per Capita Health Budget (in US $)	Health Expenditure (in US $)			
					Total	Personal Services	Maintenance and Other	Capital Outlay (Development Expenditure)
BRUNEI	1998	119,359,465	7.0	369.0	117,483,270	66,168,738	42,489,245	8,825,287
INDONESIA	1999	746,939,000	2.5	3.6				
JAPAN [a]	1999	148,102,010,359	19.9	1,180.7				
MALAYSIA	1999	1,187,436,371	6.9	52.4	1,170,067,918	950,218,962		219,848,956
PHILIPPINES [1]	1999	303,270,357	2.0	4.1	303,270,357	129,711,453	149,946,353	23,612,551
SINGAPORE	1999	705,857	1.6	181.3	642,428	119,847	432,283	90,299
THAILAND	1999	1,498,592,398	6.9	26.4	1,498,592,398	690,998,689	571,837,484	235,756,225
VIETNAM	1995	201,743,419 [b]	3.5	2.7				

Source : Ministry of Health in each country
(1) 1999 General Appropriations Act (GAA)

Note : Figures for each country except Indonesia and Philippines converted into US $ by SEAMIC / IMFJ, using yearly average exchange rates (except Vietnam) shown in ***IMF International Financial Statistics***. For Vietnam, the rate at the end of the period.
a) Including budget for social welfare
b) Including foreign aids

7 – 4 Adult Smoking Prevalence

(%)

	Year	Total	Male	Female
BRUNEI (1) a)	1997		36.1	6.4
INDONESIA				
JAPAN (2) a)	1997	28.7	50.8	10.9
MALAYSIA				
PHILIPPINES (3)	1995	33	29 b)	8 b)
SINGAPORE (4) c)	1998	15.0	26.9	3.1
THAILAND (5)	1999	24.0	45.4	3.0
VIETNAM				

Source : (1) National Nutrition Survey (1997), Ministry of Health
(2) Ministry of Health and Welfare
(3) ***1995 National Smoking Prevalence Survey,*** Department of Health
(4) Ministry of Health
(5) National Statistics Office

Note: a) 20 years old and over
b) Children and adults
c) Age 18 – 64 years

8. Medical Establishments

8 – A Definitions Used in Statistics on Medical Establishments

	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	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, 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. Specialized Hospital	A hospital providing medical and nursing care primarily for only one discipline, such as for mental disorders, maternity, infectious diseases, leprosy and tuberculosis. 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.
5. Primary Health Care Faclility	An establishment serving as the first-level contact point in the country‘s health system and providing outpatient medical and nursing care under a physician‘s supervision, though the physician may or may not be its permanent staff. This category includes general practitioners’ offices, peripheral health stations, etc.
6. Bed	A hospital bed is one regularly maintained and staffed for the accommodation and full-time 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.
7. 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.
8. 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 (1997/1998)	Indonesia (1997)	Japan (1998)	Malaysia (1999)	Philippines (1998/1999)	Singapore (1999)	Thailand (1999)	Vietnam (1998)
1 General Hospital	√	√	√	√ a)	√	√	√	√
2 Local or Rural Hospital		√					√	√
3 Mental Hospital		√	√	√	√	√	√	√
4 Maternity Hospitals		√			√	√	√	√
5 Infectious Diseases Hospitals		√	√		√		√	
6 Leprosy Hospitals		√		√	√		√	√
7 Tuberculosis Hospitals		√	√	√			√	√
8 Other Specialized Hospitals		√			√	√ b)	√	√ c)
9 PHC d) Facilities with Beds, Staffed with Physician(s)			√	√				√
10 PHC d) Facilities without Beds, Permanently Staffed with Physician(s)	√	√	√	√	√	√	√	√
11 PHC d) Facilities without Beds and without Permanently Staffed Physician		√		√	√		√	√

Note : a) Hospitals. The previous categorization into general hospital and local or rural hospitals does no longer apply.
b) Ophthalmological, dermatological, community & extended care hospitals
c) Pediatric hospitals, ophthalmological hospitals, cancer hospitals, surgical hospitals, Cardiological Institute, dermatological hospitals, oto-rhino-laryngological hospitals, dental-naso-facial hospitals, Traditional Medical Institute, Acupuncture Institute
d) Primary health care

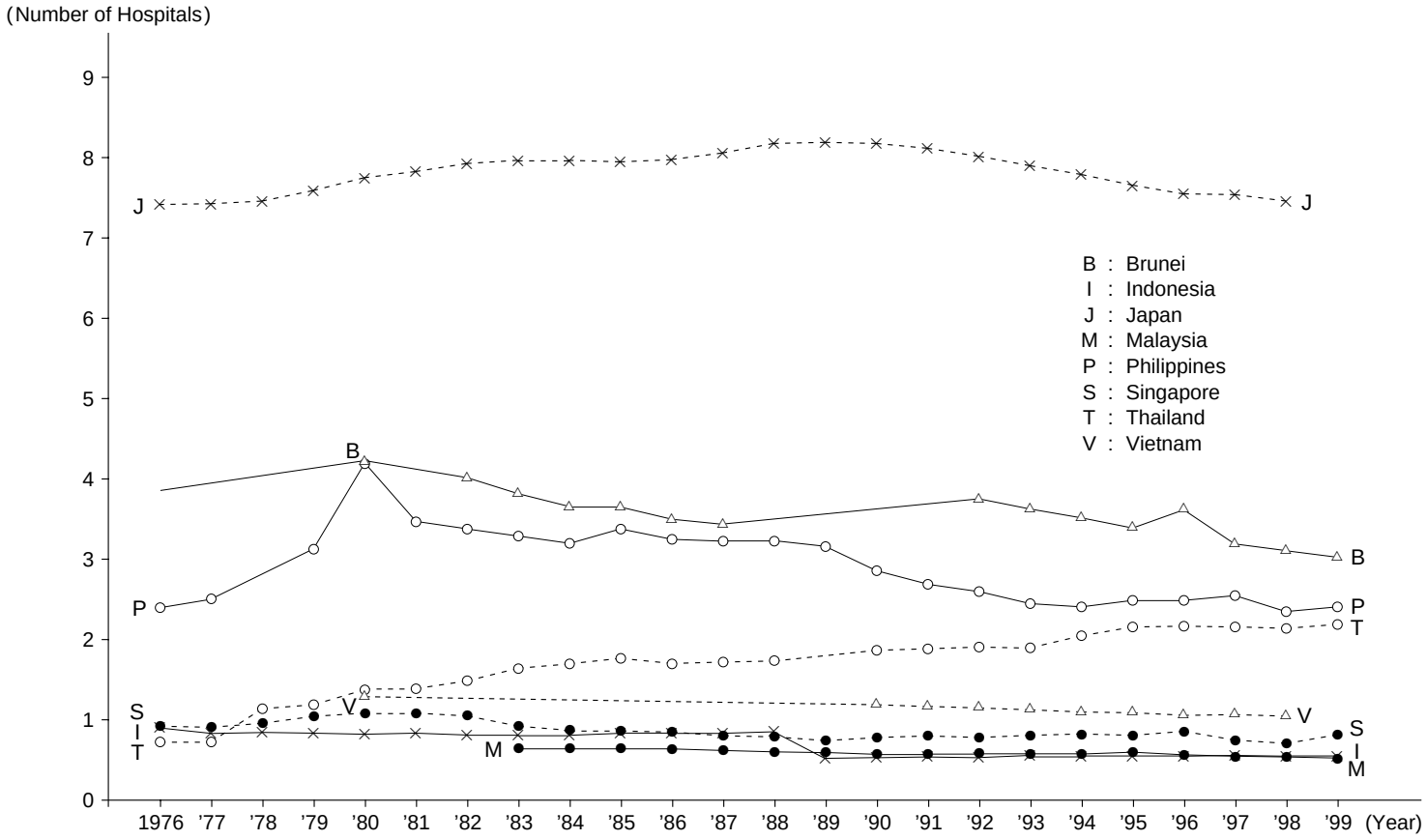
8 – 1 Number of Hospitals

		1970	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI	Total		6	8	8		10	10	10	10	11	10	10	10
INDONESIA	Total	1,164	1,115	1,208	1,367	a) 950	994	1,026	1,039	1,062	1,074	1,090	1,112	1,111
JAPAN b)	Total	7,974	8,294	9,055	9,608	10,096	9,963	9,844	9,731	9,606	9,490	9,413	9,333	9,286
MALAYSIA	Total	86	90	96	101	102	107	108	112	118	118	118	118	118
PHILIPPINES	Total	650	927	2,020	1,846	1,726	1,691	1,723	1,648	1,702	1,738	1,817	1,713	1,794
	Public	220	316	413	612	c) 594	c) 582	c) 628	c) 553	c) 607	c) 600	c) 645	c) 616	c) 648
	Private	430	611	1,607	1,229	1,132	1,109	1,095	1,095	1,095	1,138	1,172	1,097	1,146
SINGAPORE	Total	17	23	26	22	21	22	24	25	24	26	23	d) 22	26
	Public	11	13	13	11	11	12	13	13	12	12	10	10	13
	Private	6	10	13	11	10	10	11	12	12	14	13	d) 12	13
THAILAND	Total	98	281	636	910	1,043	1,097	1,105	1,215	1,280	1,293	1,301	e) 1,302	1,345
VIETNAM	Total		f) 550	685	738	782	792	793	792	796	794	817	g) 810	

Source : Ministry of Health in each country

Note : a) Excluding maternity hospitals
b) Hospitals (with 20 or more beds) only
c) Licensed retained and licensed devolved hospitals only
d) Revised figure
e) Hospitals except rural hospitals
f) For 1976
g) Hospitals and institutes

Fig. 8 Trends in Hospitals per 100,000 Population



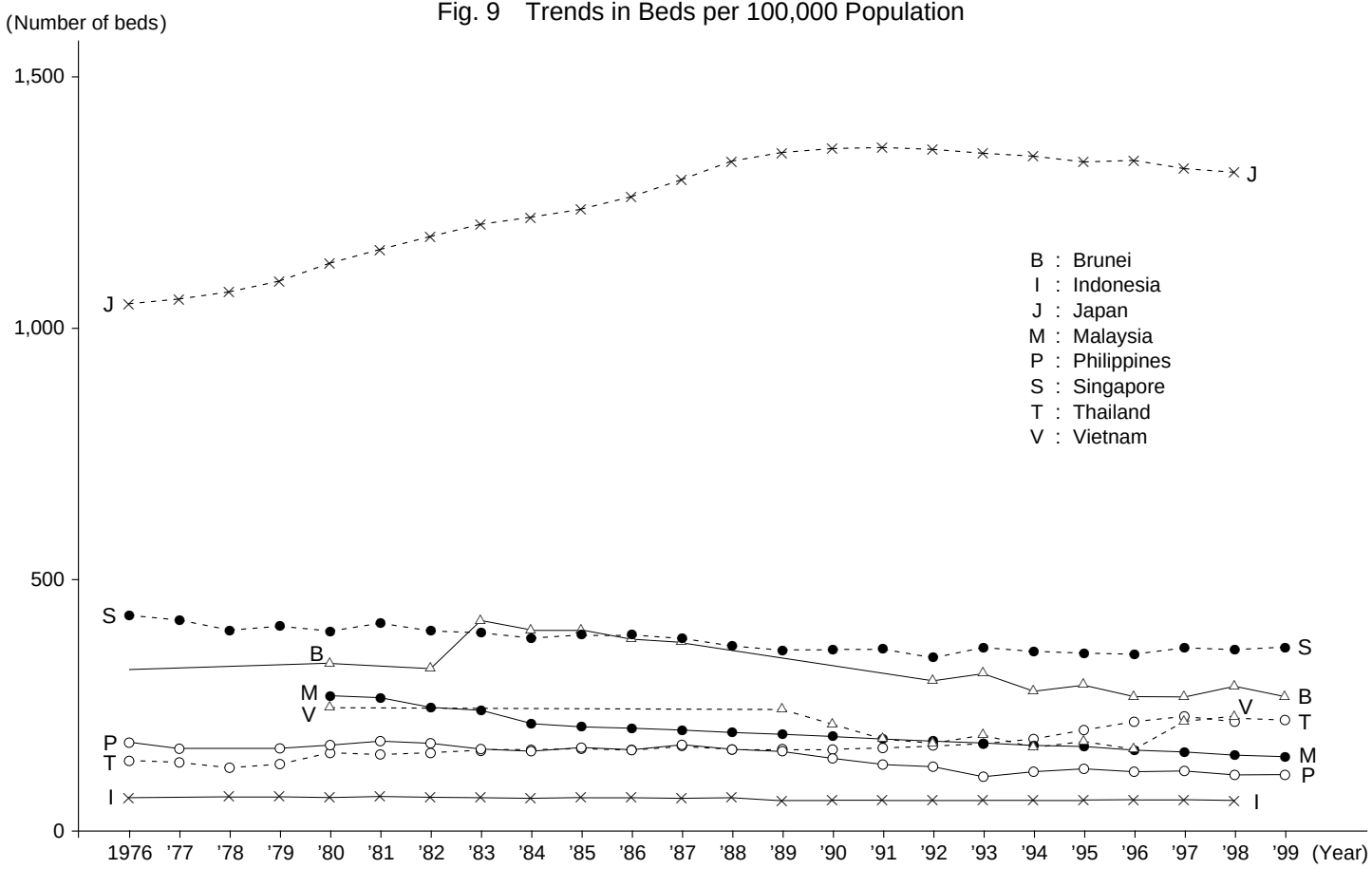
8 – 2 Number of Beds

		1970	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI	Total		506	630	876		797	772	789	856	a) 813	a) 835	a) 899	880
INDONESIA	Total	86,022	83,696	98,543	110,361	109,387	112,779	114,474	116,847	118,306	120,083	121,990	123,186	123,598
b) JAPAN	Total	1,062,553	1,164,098	1,319,406	1,495,328	1,676,803	1,686,696	1,680,952	1,677,041	1,669,951	1,664,629	1,660,784	1,656,415	1,648,217
MALAYSIA	Total	30,900	32,164	35,291	32,495	33,400	33,261	33,201	33,246	33,588	33,818	33,918	33,338	33,338
c) PHILIPPINES	Total	40,289	55,323	81,976	90,279	86,948	83,113	77,734	80,580	84,482	81,789	84,648	81,200	83,521
	Public	19,725	27,075	39,625	47,861	48,602	45,971	41,498	44,344	46,911	43,582	44,818	42,877	43,507
	Private	20,564	28,248	42,351	42,418	38,346	37,142	36,236	36,236	37,571	38,207	39,830	38,323	40,014
SINGAPORE	Total	7,760	9,311	9,585	10,000	9,759	9,726	10,469	10,407	10,498	10,668	11,276	11,389	11,747
	Public	6,891	8,211	8,078	8,329	7,922	7,833	8,640	8,346	8,326	8,511	9,091	9,277	9,560
	Private	869	1,100	1,507	1,671	1,837	1,893	1,829	2,061	2,172	2,157	2,185	2,112	2,187
d) THAILAND	Total	25,619	52,652	71,718	84,045	90,740	97,856	101,166	108,747	118,417	129,387	137,715	132,405	135,303
e) VIETNAM	Total		f) 98,362	131,265	143,771	140,076	120,710	134,635	119,519	130,760	121,808	166,628	175,570	

Source : Ministry of Health in each country

Note : a) Based on 4 government hospitals and 1 private hospital
b) Hospitals (with 20 or more beds) only
c) From 1993, licensed retained and devolved hospitals
d) From 1985 onwards, including private maternity centres
e) Including beds of policlinics and specialized clinics and maternity houses
f) For 1976

Fig. 9 Trends in Beds per 100,000 Population



8 – 3 Hospitals and Other Medical Establishments

	Year	1 General Hospitals				2 Local or Rural Hospitals				3 Mental Hospitals			
		Establish-ments	Beds	Admissions	Patient-days	Establish-ments	Beds	Admissions	Patient-days	Establish-ments	Beds	Admissions	Patient-days
BRUNEI	1999	10	a) 880	a) 36,734	a) 178,650	••				••			
INDONESIA (1)	1998	335	63,732	2,605,036	12,814,854	553	42,560	1,734,886	7,733,648	49	7,891	34,480	1,816,254
JAPAN	1998	8,266	1,395,237	12,262,408	418,376,391	••				1,057	260,576	191,833	90,008,096
MALAYSIA (2)	1998	b) 111	b) 27,046	b) 1,525,384	b) 5,862,644	••				4	5,320	9,702	1,480,370
PHILIPPINES (3) c)	1998	33	8,300	546,145	2,803,663					1	4,200	8,720	1,249,820
	1999	35	8,400	534,348	2,884,931					1	4,200	8,304	1,285,403
SINGAPORE	1999	13	6,497	282,871	1,528,672	••				2	3,168	7,039	928,760
THAILAND (4)	1999	1,282	121,299	7,773,757	30,764,741	d) 712	26,702	2,814,069	8,492,041	19	8,104	100,262	1,968,413
VIETNAM (5)	1998	685	86,513							e) 20			

Source : Ministry of Health in each country
(1) Directorate of Medical Care, Ministry of Health
(2) Information and Documentation System Unit
(3) Center for Hospital Facilities and Services, Department of Health
(4) Health Information Center, Ministry of Public Health
(5) ***Health Statistics Yearbook,*** Health Statistics and Informatic Division, Ministry of Health

Note : a) Based on 4 government hospitals and 1 private hospital
b) Hospitals. The previous categorization into general hospital and local or rural hospitals does no longer apply.
c) DOH (Department of Health)-retained hospitals only.
d) Government hospital only
e) 2 central-level hospitals and 18 provincial level hospitals

4 Maternity Hospitals				5 Infectious Diseases Hospitals				6 Leprosy Hospitals			
Establish-ments	Beds	Admissions	Patient-days	Establish-ments	Beds	Admissions	Patient-days	Establish-ments	Beds	Admissions	Patient-days
..				..				..			
51	2,279	77,141	278,338	1	103	4,238	20,425	24	2,643	6,193	514,741
..				5	274	131	3,460	..			
..				..				2	856	6,025	86,248
1 1	700 700	61,568 51,713	168,268 187,861	3 3	975 550	42,065 23,206	253,395 174,607	8 8	3,880 3,680	5,987 6,051	218,481 169,044
a) 1	898	65,068	228,495	..				..			
8	1,008	63,540	289,267	2	890	15,959	100,071	2	1,320		
b) 48	b) 995			..				c) 18	1,529		

Note : a) Women's and Children's Hospital
b) Maternity homes
c) Leprosaria

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

	Year	7 Tuberculosis Hospitals				8 Other Specialized Hospitals				9 PHC[a] Facilities with Beds, Staffed with Physician(s)			
		Establish-ments	Beds	Admissions	Patient-days	Establish-ments	Beds	Admissions	Patient-days	Establish-ments	Beds	Admissions	Patient-days
BRUNEI	1999	..				..							
INDONESIA	1998	10	748	12,008	116,442	89	4,230	132,539	587,156				
JAPAN	1998	5	[b] 328	448	82,416	..				19,397	235,530		
MALAYSIA	1998	1	116	2,546	17,820								
PHILIPPINES	1998 1999					7 8	1,675 1,687	51,584 48,613	438,561 419,030				
SINGAPORE	1999	..				[c] 10	1,184	19,740	305,964				
THAILAND	1999	1	600	7,353	77,159	20	2,082	46,944	814,729	[d] 3	[d] 25	[d] 1,188	[d] 2,159
VIETNAM	1996	[e] 71	11,970			[f] 115	19,459			[d] 953 [g] 9,920	[d] 9,999 [g] 42,380		

Note : a) Primary health care
b) Revised figure
c) Ophthalmological, dermatological, community and extended care hospitals
d) Policlinics: PHC staffed with physicians
e) Sanatoria
f) Pediatric hospitals, ophthalmological hospitals, cancer hospitals, surgical hospitals, Cardiological Institute, dermatological hospitals, oto-rhino-laryngological hospitals, dental-naso-facial hospitals, Traditional Medical Institute, Acupuncture Institute, Rehabilitation hospitals
g) Communal Health Stations (CHS), 40% of CHSs are staffed with physicians

10 PHC [a] Faclities without Beds, Permanently Staffed with Physician(s)	11 PHC [a] Facilities without Beds and without Permanently Staffed Physician	12 Total			
Establishments	Establishments	Establish-ments	Beds	Admissions	Patient-days
		10	[b] 880	[b] 36,734	[b] 178,650
		6,358	123,186	4,606,521	23,882,019
71,159	••	99,889	[c] 1,891,945	[d] 12,454,820	[d] 508,470,363
772	1,992	2,882	33,338	1,543,657	7,447,082
[e] 18	••	44	11,747	374,718	2,991,891
2	[f] 9,559	[g] 10,820	[g] 135,303	8,007,815	34,014,380
	[h] 1,120	12,556	172,642	5,132,237	33,359,485

Note : a) Primary health care
b) Based on 4 government hospitals and 1 private hospital
c) Revised figure
d) Excluding PHC facilities
e) Government only, excludes general practitioner's offices
f) Health Centres
g) Excluding rural hospitals
h) Health stations at other ministries

8 – 4 Hospital Utilization by Category of Hospital

	Year	All Hospitals					General Hospitals					
		Type	Population per Bed	Beds per 100,000 Population	Admissions per 100,000 Population	Bed Occupancy Rate (%)	Type	Beds per 100,000 Population	Admissions per 100,000 Population	Admissions per Bed	Bed Occupancy Rate (%)	Average Length of Stay (Days)
BRUNEI [a]	1999	T	376	266.1	11,108.0	56	T	376	11,108.0	42	56	4.9
INDONESIA [1]	1998	G	1,659	60.3	2,253.8	53.1	G	30.7	1,274.5	41.5	56.7	5.0
JAPAN	1998	T	67	1,309.6	9,846.8	84.0	T	1,103.1	9,694.7	8.8	82.1 [b]	34.1
MALAYSIA [2]	1998	G	665	150	6,960	61.2	G	121.9 [c]	6,877.4 [c]	56.4 [c]	59.4 [c]	3.8 [c]
PHILIPPINES [3] [d]	1998 1999	T	3,707 3,890	26.9 25.7	978.9 899.4	71.3 73.0	T	11.3 11.2	746.6 714.9	65.8 63.6	92.5 94.1	4.4 4.5
SINGAPORE [e]	1999	T	331	301.7	9,623.9	76.7	T	166.9	7,265.0	43.5	72.7	5.4
THAILAND [4]	1999	T	455	219.7	13,004	68.8	T	196.9	12,624.2	64.5	69.5	4.0
VIETNAM	1997 1998	G	460 438	127.9 137.6		81.1 91.5						

Source : Ministry of Health in each country
(1) Directorate of Medical Care
(2) Information and Documentation System Unit
(3) Center for Hospital and Services
(4) Health Information Division

Note : Type of hospitals
T = Total
G = Government hospital establishments
a) 4 government hospitals and 1 private hospital
b) Revised figure
c) Hospitals. The previous categorization into general hospitals and district hospitals does no longer apply.
d) Department of Health-retaired hospital only
e) Based on total population

Local or Rural Hospitals						Tuberculosis Hospitals					
Type	Beds per 100,000 Population	Admissions		Bed Occupancy Rate (%)	Average Length of Stay (Days)	Type	Beds per 100,000 Population	Admissions		Bed Occupancy Rate (%)	Average Length of Stay (Days)
		per 100,000 Population	per Bed					per 100,000 Population	per Bed		
		..						..			
G	20.8	848.8	40.8	50.9	5	G	0.4	5.9	16.1	42.6	10
		..				T	0.3	0.4	1.4	68.8	189.7
		..				G	0.5	11.5	22.0	42.1	7.0
		..						..			
G	43.4	4,569.9	105	87	3.0	T	1.0	11.9	12.2	35.2	10.5
G	55.3			87.1	6.5						

Note : a) District Hospitals

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

	Year	Mental Hospitals						Maternity Hospitals					
		Type	Beds per 100,000 Population	Admissions per 100,000 Population	Admissions per Bed	Bed Occupancy Rate (%)	Average Length of Stay (Days)	Type	Beds per 100,000 Population	Admissions per 100,000 Population	Admissions per Bed	Bed Occupancy Rate (%)	Average Length of Stay (Days)
BRUNEI	1999	••						••					
INDONESIA (1)	1998	G	3.4	16.9	4.4	63.6	61	G	1.1	37.7	33.8	33.5	3
JAPAN	1998	T	206.0 a)	151.7	0.7 a)	94.5 a)	468.3	••					
MALAYSIA (2)	1998	G	24.0	43.7	1.8	76.0	152.6	••					
PHILIPPINES (3)	1998 1999	Special	5.7 5.6	11.9 11.1	2.1 2.0	81.5 83.8	156.8 153.6	Special	1.0 1.0	84.2 69.2	87.9 73.9	65.9 73.5	3.2 3.7
SINGAPORE b)	1999	T	81.4	180.8	2.2	82.5	110.3	T c)	23.1	1,671.2	72.5	78.0	3.5
THAILAND (4)	1999	T	13.2	162.8	12.3	66.3	19.6	T	1.6	103.1	63.0	78.6	4.6
VIETNAM	1998								1.29				

Source : Ministry of Health in each country
(1) Directorate of Medical Care, Ministry of Health
(2) Information and Documentation System Unit
(3) Hospital Operation and Management Services
(4) Health Information Center

Note : a) Revised figure
b) Based on total population
c) Women's and Children's Hospital

9. Human Resources for Health

9 – A Definitions of Medical and Allied Health Personnel

	Definition
1. Physicians	All graduates of a medical school or faculty actually working in any medical field (practice, teaching, administration, research, laboratory, etc).
2. Medical Assistants	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. Dentists / Dental Surgeons (a) High (university) level (b) Middle (non-university) level	(a) All graduates of a dental school (or faculty of odontology or stomatology) actually working in any dental field. (b) Personnel qualified from a dental school of non-university level and licensed to practice dentistry.
4. Dental Nurses	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.
5. Dental Assistants / Dental Auxiliaries	Dental non-operating auxiliaries who assist dentists and dental nurses 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.
6. Dental Technicians	Personnel who make dentures, bridges, etc. as specified by dentists for their patients. These personnel usually have technical trainingg in formal courses, e.g. at a specialized educational institution.
7. Pharmacists	All graduates of a faculty or school of pharmacy actually working in pharmacies, hospitals, laboratories, industry, etc.
8. Pharmaceutical Assistants / Dispensers	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. Professional Midwives	All graduates of a midwifery school actually working in any field of midwifery (practice in institutions and community health services, teaching, administration, private practice, etc.)
10. Assistant Midwives / Auxiliary Midwives	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.
11. Trained Traditional Birth Attendants	Personnel who practice traditional care of pregnant women and assist in the delivery, as accepted by the culture of a specific community, and who have later received some training in midwifery work.
12. Untrained Traditional Birth Attendants	Personnel without formal training in midwifery work who practice traditional care of pregnant women and assist in the delivery, as accepted by the culture of a specific community.
13. Voluntary Health Workers	Personnel performing voluntarily various types of health-related work, usually at the community level. They may have received some training in the work involved, either in formal courses or by apprentice-ship.

	Definition
14. Professional Nurses	All graduates of a nursing school working in any nursing field (general nursing, specialized clinical nursing services in mental health, pediatrics, cardiovascular diseases, etc., or public health, 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	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. Physiotherapists / Physical Therapists	Professional personnel treating patients by exercise, physical means, and massage, usually as prescribed by a physician.
17. Occupational Therapists	Professional personnel helping patients' recovery from illness or injury by supervising mental or physical tasks prescribed by a physician, such as daily activities of life, or vocational or recreational activities.
18. Dietitians / Nutritionists	Professional personnel who are experts in nutrients and nutrition and their application to the choice and use of food.
19. Medical Social Workers	Professional personnel providing help to persons with family or social problems arising from disease, injury or impairment.
20. Medical Laboratory Technicians	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.

	Definition
21. Assistant Medical Laboratory Technicians	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.
22. Radiographers	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.
23. Assistant Radiographers	Auxiliary medical radiological personnel working under the direct supervision of a medical radiological technician or under a specialist or physician.
24. Sanitary Engineers	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.
25. Sanitarians (a) High level (b) Middle level	(a) 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. (b) 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.

9 – A Definitions of Medical and Allied Health Personnel (Contd.)

	Definition
26. Malaria Field Officers	Personnel performing field work in malaria control under the supervision of the medical officer in charge, such as vector control, distribution of medicaments and field investigations. These personnel usually do not have education of university level, but are trained in formal courses in the work to be performed.
27. Entomologists	In health work, professional personnel with education of university level in entomology of disease vectors and in vector control.
28. Health Educators	Personnel providing community population groups with knowledge regarding health, such as disease treatment, disease prevention and health promotion. These personnel usually do not have education of university level, but are trained in formal courses in various subjects relating to health work.

9 – B Comparative Table on Medical and Allied Health Personnel

	Brunei (1999)	Indonesia (1998)	Japan (1999)	Malaysia (1999)	Philippines (1997)	Singapore (1999)	Thailand (1999)	Vietnam (1998)
1 Physicians	√	√	√	√	√	√	√	√
2 Medical Assistants		√		√			√	√
3 Dentists / Dental Surgeons	√	√	√	√	√	√	√	√
4 Dental Nurses	√	√		√		√		
5 Dental Assistants / Dental Auxiliaries	√	√	√	√		√	√	
6 Dental Technicians	√	√	√	√		√		
7 Pharmacists	√	√	√	√	√	√	√	√
8 Pharmaceutical Assistants / Dispensers	√	√		√		√	√	√
9 Professional Midwives	√	√	√	√	√	√	√	√
10 Assistant Midwives / Auxiliary Midwives	√							√
11 Trained Traditional Birth Attendants		√			√		√	
12 Untrained Traditional Birth Attendants		√			√			
13 Voluntary Health Workers		√			√		√	
14 Professional Nurses	√	√	√	√	√	√	√	√
15 Assistant Nurses / Auxiliary Nurses	√	√	√	√		√	√	√
16 Physiotherapists / Physical Therapists	√	√	√	√	√	√	√	
17 Occupational Therapists	√	√	√	√	√	√	√	
18 Dietitians / Nutritionists	√	√	√	√	√	√	√	
19 Medical Social Workers	√	√	√	√	√	√	√	
20 Medical Laboratory Technicians	√	√	√	√	√	√	√	√
21 Assistant Medical Laboratory Technicians	√	√		√	√	√	√	
22 Radiographers	√	√	√	√	√	√	√	
23 Assistant Radiographers	√							
24 Sanitary Engineers		√		√	√	√	√	
25 Sanitarian / Assistant Sanitarian	√	√			√	√	√	

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

	Brunei (1999)	Indonesia (1997)	Japan (1999)	Malaysia (1999)	Philippines (1997)	Singapore (1999)	Thailand (1999)	Vietnam (1998)
26 Malaria Field Officers	√	√		√	√	√	√	
27 Entomologists	√			√	√		√	
28 Health Educators	√	√		√	√	√	√	

9 – 1 Medical and Allied Health Personnel

	Year	1. Physicians	2. Medical Assistants	3. Dentists / Dental Surgeons	4. Dental Nurses	5. Dental Assistants / Dental Auxiliaries	6. Dental Technicians	7. Pharmacists
BRUNEI	1999	309	••	50	84	36	20	25
INDONESIA	1999	25,552	30,752	6,051	a) 7,184	b) 11,508	a) 95	c) d) 6,991
JAPAN	1999	c) 248,611	••	c) 88,061	••	61,331	e) 88,384	c) 205,953
MALAYSIA (1)	1999	15,503	6,136	1,909	f) 1,552	f) 1,171	f) 482	2,318
PHILIPPINES (2)	1997	88,754	••	38,278	••	••	••	39,095
SINGAPORE	1999	5,325	••	1,028	f) 260	f) 22	f) 2	1,043
THAILAND (3)	1999	18,140		4,026				6,062
VIETNAM	1998	g) 37,458	h) 50,201					5,611

Source : Ministry of Health in each country
(1) Information and Documentation System Unit
(2) Professional Regulation Comission (Cumulative)
(3) ***Health Resources Report,*** Health Information Division
(4) ***Health Statistics Yearboo***k, Health Statistics and Informatic Division, Ministry of Health

Note : a) For 1995
b) For 1994
c) For 1998
d) Revised figure
e) Licensees at the end of 1999
f) Government only
g) Including dentists
h) Assistant doctors

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

	Year	8. Pharmaceutical Assistants / Dispensers	9. Professional Midwives	10. Assistant Midwives / Auxiliary Midwives	11. Trained Traditional Birth Attendants	12. Untrained Traditional Birth Attendants	13. Voluntary Health Workers	14. Professional Nurses
BRUNEI	1999	43	68	a) 184	••	••	••	875
INDONESIA	1999	b) 15,407	54,258	••	••	••		80,592
JAPAN	1999	••	b) 24,202	••	••	••	••	b) 594,447
MALAYSIA	1999	2,152	6,911	••		••	••	c) 20,914
PHILIPPINES	1997	••	122,013	••	(1) 33,509	(1) 5,834	(1) 174,569	314,295
SINGAPORE	1999	c) 158	449	••	••	••		11,765
THAILAND	1999						708,509	68,008
VIETNAM	1998	d) 17,006	e) 9,553	f) 4,173				g) 24,323

Source : (1) Community Health Service

Note : a) Midwife only
b) For 1998
c) Government only
d) Assistant pharmacists, 2nd degree pharmaceutical technicians and elementary pharmacists
e) 2nd degree midwives
f) Elementary midwives
g) High degree nurses and 2nd degree nurses

15. Assistant Nurses / Auxiliary Nurses	16. Physiotherapists / Physical Therapists	17. Occupational Therapists	18. Dietitians / Nutritionists	19. Medical Social Workers	20. Medical Loboratory Technicians	21. Assistant Medical Laboratory Technicians	22. Radiographers	23. Assistant Radiographers	24. Sanitary Engineers
424	11	13	11	3	63	40	12	33	••
••	a) 1,179	b) 667	a) 9,504 / 4,948	a) ••	b) 284	a) 7,832	a) 1,739		c) 4,568
d) 391,374	e) f) 23,896	e) f) 12,627	f) g) 720,010	a) h) 6,321	e) 138,682	••	e) 48,273	••	••
i) 9,087	i) 283	i) 240	i) 79	i) 51	i) 2,193	i) 973	i) 620	••	i) 89
••	5,555	469	9,772	1,048	35,683	476	3,028	••	2,005
3,733	i) 10	i) 20	i) 21	i) 24	i) 122	i) 16	i) 13	••	i) 265
31,543									
j) 19,399					2,278				

Note: a) For 1995
b) For 1991
c) For 1994
d) For 1998
e) Licensees at the end of 1999
f) Cumulative
g) Licensees as of March 31, 1998
h) Hospitals only
i) Government only
j) Elementary nurses

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

	Year	25. Sanitarians / Assistant Sanitarians	26. Malaria Field Officers	27. Entomologists	28. Health Educators
BRUNEI	1999	49	12	1	3
INDONESIA (1)	1997	a) 4,131	3,685	..	b) 78
JAPAN	1996	..	..	..	..
MALAYSIA	1999	..		c) 28	c) 91
PHILIPPINES	1997	d) 3,460	d) 760	d) 20	d) 80
SINGAPORE	1999	c) e) 605			c) 26
THAILAND	1999				
VIETNAM	1998				

Note : a) For 1995
b) For 1991
c) Government only
d) Department of Health only
e) Known as Environment Health Officers

9 – 2 Population / Health Personnel Ratios

	Year	Physicians per 100,000 Population	Population per Physician	Dentists per 100,000 Population	Population per Dentist	Pharmacists per 100,000 Population	Population per Pharmacist	Medical Assistants per 100,000 Population	Population per Medical Assistant	Nursing Personnel per 100,000 Population	Population per Nursing Personnel	Nursing & Midwifery Personnel per 100,000 Population	Population per Nursing & Midwifery Personnel
BRUNEI	1999	93.4	1,070	15.1	6,614	7.6	13,228	••	••	418.2	239	484.4	206.4
INDONESIA	1999	12.5	8,118	3.0	33,843	3.4	29,364	25.6	15.0	39.4	2,541	64.9	1,540
JAPAN	1998	196.6	509	69.6	1,436	162.8	614.1	••	••	779.4	207	798.5	125
MALAYSIA	1999	68.3	1,465	8.4	11,897	10.2	9,798	27.0	3,701	92.1	1,086	162.5	615
PHILIPPINES (1)	1997	124.0	806	53.5	1,869	54.6	1,830	••	••	439.3	228	609.8	164
SINGAPORE a)	1999	136.8	731	26.4	3,788	26.8	3,733	••	••	398.0	251	409.6	244
THAILAND	1999	29.4	3,395	6.5	15,295	9.8	10,158			161.7	618.4	b) 161.6	b) 618.5
VIETNAM	1998	47.8	2,084			7.2	13,912	c) 64.3	c) 1,555	56.0	1,717	73.6	1,359

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

Note : a) Based on total population
b) Nurses and professional midwives
c) Assistant doctor

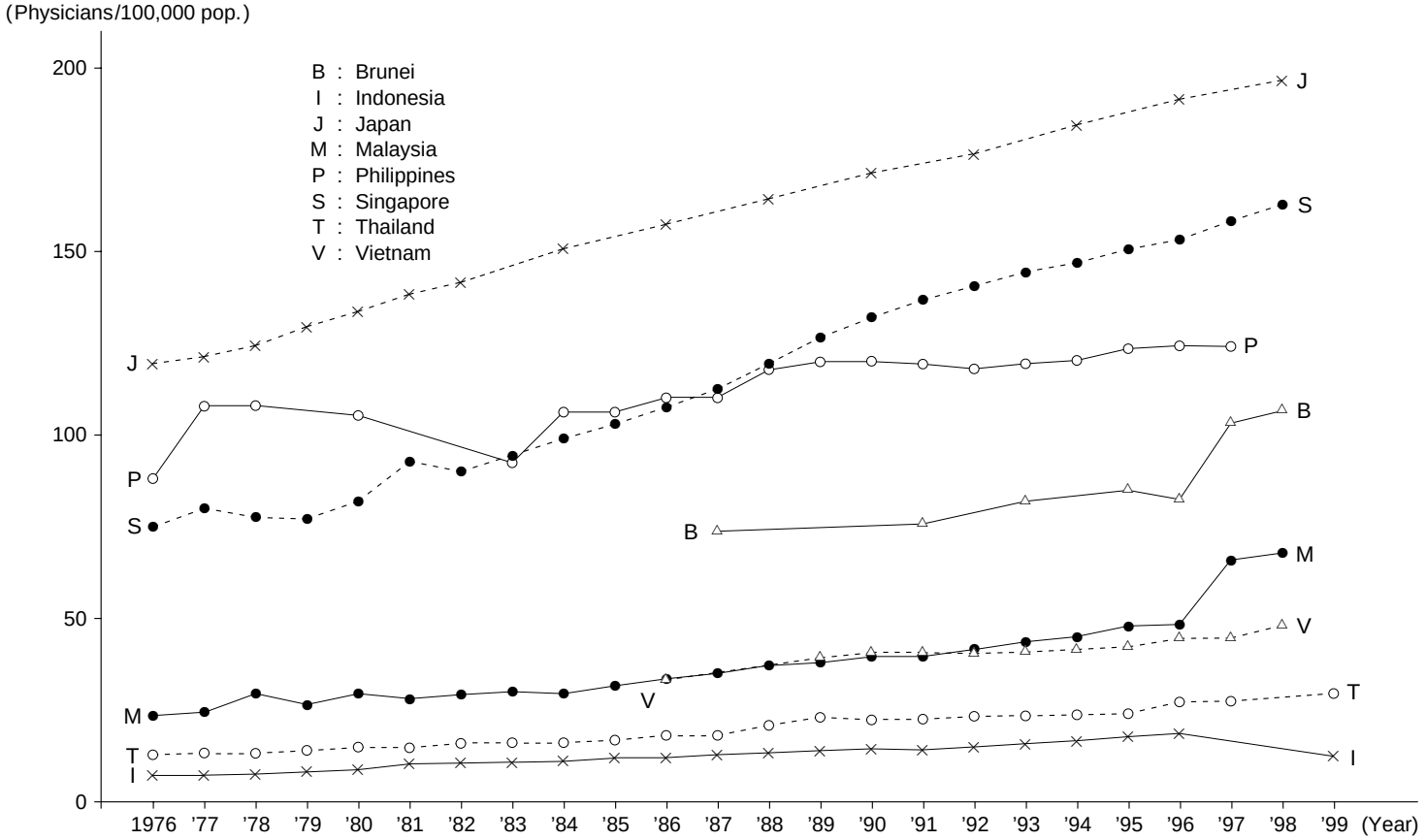
9 – 3 Number of Physicians

Year	1970	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI							226		251	251	324	344	309
INDONESIA (1)	3,578	8,279	12,931	(2) 19,875	25,752	27,652	29,450	31,400	(3) 24,440	(4) 36,688	a) 28,038		25,552
JAPAN b)	118,990	132,479	156,235	NA	211,797	219,704	NA	230,519	NA	240,908	NA	248,611	NA
MALAYSIA (5)	2,543	2,757	3,858	4,939	7,012	7,719	8,279	8,831	9,608	10,196	14,248	15,016	15,503
PHILIPPINES (6)	31,515	37,276	50,848	58,015	72,593	77,127	79,936	82,494	84,671	86,878	88,754		
SINGAPORE	1,363	1,622	1,976	2,631	3,573	3,962	4,146	4,301	4,495	4,661	4,912	5,148	5,325
THAILAND (7)	5,407	5,005	6,867	8,650	12,520	13,398	13,634	14,098	14,181	16,209	16,569	17,955	18,140
VIETNAM (8) c)		d) 9,108		e) 19,804	26,821	27,953	28,884	30,017	31,122	33,470	34,001	37,458	

Source : Ministry of Health in each country
(1) ***The Health Situation of Indonesia,*** Ministry of Health
(2) Personnel Bureau 1987
(3) Indonesia Health Profile 1996
(4) Indonesian Five Year's Planning
(5) Information and Documentation System Unit, Ministry of Health
(6) Professional Regulation Commission
(7) Health Information Center, Ministry of Public Health
(8) ***Health Statistics Yearbook,*** Health Statistics and Informatic Division, Ministry of Health

Note: a) Revised figure
b) Since 1982, data collection every other year
c) Including dentists
d) 1976
e) 1986

Fig. 10 Trends in Physicians per 100,000 Population



9 – 4 Number of Dentists

Year	1970	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI							31		38	24	46	50	50
INDONESIA (1)	452		1,681	(2) 4,237	(3) 5,545	(3) a) 6,756	7,231	7,836	a) 5,462	5,962	6,827	5,794	6,051
JAPAN b)	37,859	43,586	53,602	NA	74,028	77,416	NA	81,055	NA	85,518	NA	88,061	NA
MALAYSIA (4)	301	504	691	1,041	1,471	1,562	1,606	1,712	1,750	1,800	1,865	2,104	1,909
PHILIPPINES (5)	12,174	13,096	15,158	21,148	28,204	32,093	33,302	34,379	35,483	36,707	38,278		
SINGAPORE	398	419	485	604	776	806	839	859	875	913	952	981	1,028
THAILAND	683	652	1,169	1,451	2,285	2,669	2,786	2,984	2,290	3,415	3,414	3,917	4,026
VIETNAM c)													

Source : Ministry of Health in each country
(1) ***The Health Situation of Indonesia,*** Ministry of Health
(2) Consurtium Health Science, Ministry of Education and Culture Medical Science
(3) Personnel Bureau
(4) Information and Documentation System Unit
(5) Professional Regulation Commission

Note : a) Revised figure
b) Since 1982, data collection every other year
c) Included in number of physicians

9 – 5 Number of Pharmacists

Year	1970	1975	1980	1985	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI							10		13		13	20	24	23	25
INDONESIA (1)	1,486	1,847	3,013	(2) 4,268	5,207	a) 5,060	5,345	5,592	5,762	6,559	6,971	6,993	6,572	7,768	3,509
JAPAN b)	79,393	94,362	116,056	NA	NA	150,627	NA	162,021	NA	176,871	NA	194,300	NA	205,953	NA
MALAYSIA (3)		258	488	843	1,170	1,239	1,214	1,351	1,324	1,510	1,537	1,715	1,746	2,129	2,318
PHILIPPINES (4)	19,076	20,838	23,225	26,440	28,764	29,612	30,971	32,126	33,233	34,854	36,352	37,650	39,095		
SINGAPORE	245	288	368	436	557	587	629	677	720	773	815	858	944	998	1,043
THAILAND (5)	1,407	1,913	2,650	3,376	3,825	4,163	4,333	4,609	4,721	5,575	5,867	5,640	5,941	5,911	6,062
VIETNAM		c) 3,089		d) 5,700						5,757	4,941	5,286	5,406	a) 5,611	

Source : Ministry of Health in each country
(1) ***The Health Situation of Indonesia,*** Ministry of Health
(2) Consurtium Health Science, Ministry of Education and Culture Medical Scinece
(3) Information and Documentation System Unit
(4) Professional Regulation Commission
(5) Health Information Center, Ministry of Public Health

Note: a) Revised figure
b) Since 1982, data collection every other year
c) 1976
d) 1986

9 – 6 Number of Midwives

Year	1970	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI							464		452	341	234	231	219
INDONESIA (1)	3,752	10,720	16,472		(2) 22,405	36,187	42,518	51,067	49,643	58,656	49,643	49,758	54,258
JAPAN a)	28,087	26,742	25,867	NA	22,918	22,690	NA	23,048	NA	23,615	NA	24,202	NA
MALAYSIA (3) b)		c) 1,995	c) 4,355	5,047	5,492	5,476	5,508	5,500	5,495	5,746	5,827	6,620	6,911
PHILIPPINES (4)	16,082	18,528	42,114	55,841	71,092	85,172	94,849	102,875	111,700	117,995	122,013		
SINGAPORE	1,058	930	779	623	543	530	522	507	499	487	473	456	449
THAILAND (5)	4,203	6,335	8,669	7,716	10,796	10,492	10,525	10,342	9,713	d) 2,731	d) 2,677		
VIETNAM		e) 647		f) 4,480	5,025	5,835	5,986	6,625	7,145	8,101	8,563	9,553	

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) Nursing Board, Ministry of Health
(4) Professional Regulation Commission
(5) Health Information Division, Ministry of Public Health

Note : a) Since 1982, data collection every other year
b) Government sector only
c) Peninsular Malaysia only
d) Professional midwives only
e) 1976
f) 1986

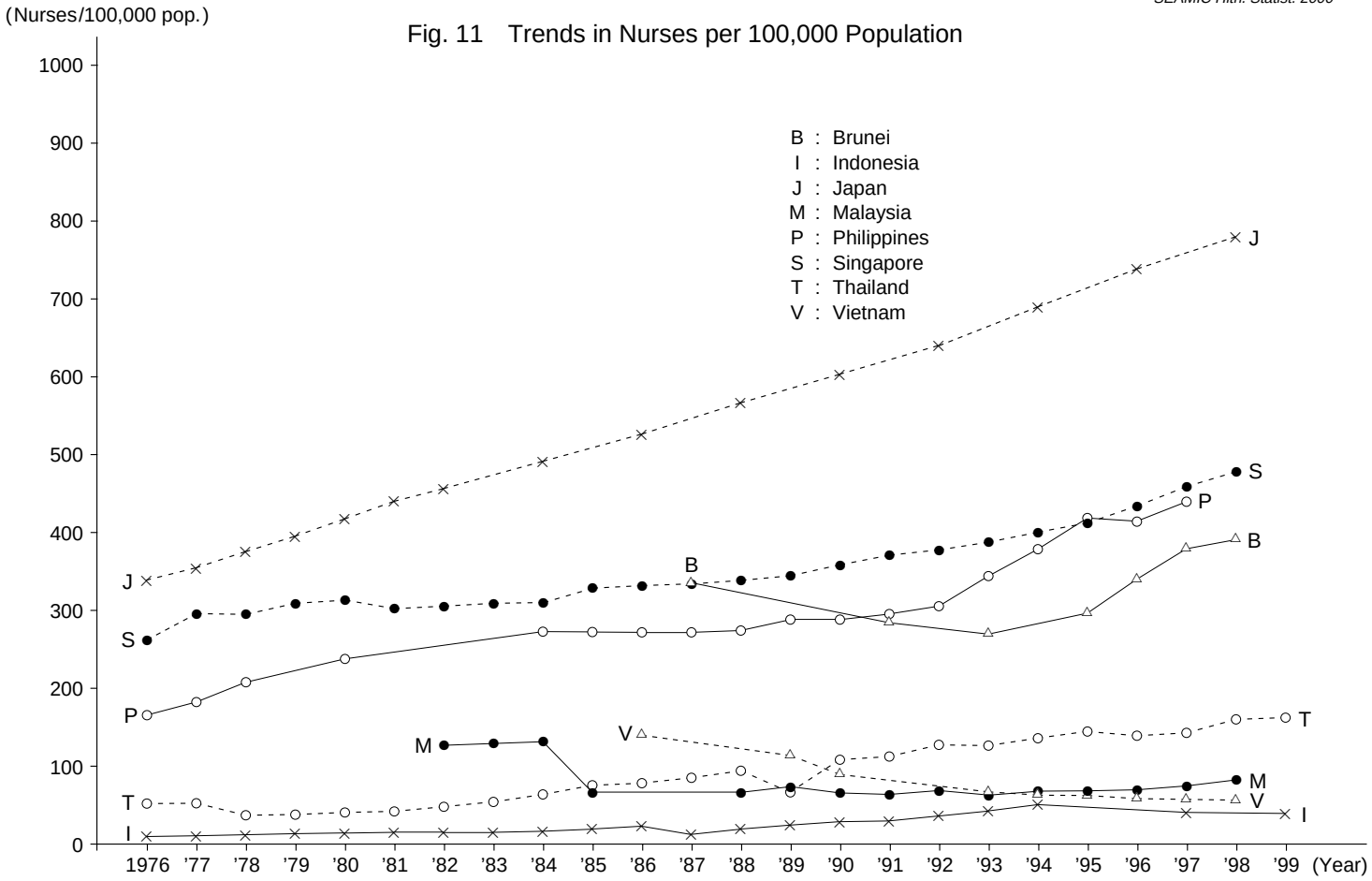
9 – 7 Number of Nurses

Year	1970	1975	1980	1985	1990	1992	1993	1994	1995	1996	1997	1998	1999
BRUNEI							743		876	1,035	1,190	1,262	1,383
INDONESIA (1)		9,856	20,201		50,350	65,805	78,290	96,427			80,587		80,592
JAPAN a) b)	273,572	361,604	487,169	NA	745,301	795,810	NA	862,013	NA	928,896	NA	985,821	NA
MALAYSIA (2) c)	5,617	4,207	7,649 d)	10,311	11,569	12,789	11,961	13,224	13,647	14,614	16,068	18,134	20,914
PHILIPPINES (3)	38,918	64,165	114,657	148,514	174,112	199,263	230,187	259,629	286,901	289,473	314,295		
SINGAPORE a)	4,304	5,767	7,545	8,393	9,695	10,633	11,127	11,723	12,298	13,193	14,232	15,112	15,498
THAILAND (4)	15,387	18,993	18,483	38,683	60,672	73,319	73,684	80,938	85,542	82,815	86,231	97,572 a)	99,551 a)
VIETNAM (5)		63,458 e)		83,222 f)	58,674		47,125	45,279	45,561	43,422	43,440	43,722	

Source : Ministry of Health in each country
(1) Personal Bureau, Ministry of Health
(2) Nursing Board, Ministry of Health
(3) Professional Regulation Commissioner
(4) Health Information Division, Ministry of Public Health
(5) ***Health Statistics Yearbook,*** Health Statistics and Informatic Division, Ministry of Health

Note: a) Professional nurses and assistant nurses
b) Since 1982, date collection every other year
c) Government sector only
d) Peninsular Malaysia only
e) 1976
f) 1986

Fig. 11 Trends in Nurses per 100,000 Population



9 – 8 Number of Physicians, Dentists and Pharmacists, by Sex

	Year	Physicians				Dentists				Pharmacists			
		Male		Female		Male		Female		Male		Female	
		number	%	number	%	number	%	number	%	number	%	number	%
BRUNEI													
INDONESIA													
JAPAN (1)	1998	213,603	85.9	35,008	14.1	73,669	83.7	14,392	16.3	82,950	40.3	123,003	59.7
MALAYSIA													
PHILIPPINES													
SINGAPORE (2)	1999	3,676	69.0	1,649	31.0	636	61.9	392	38.1	334	32.0	709	68.0
THAILAND													
VIETNAM													

Source : Ministry of Health in each country

9 – 9 Situation of Medical Schools

	Academic Year	Number of Medical Schools	Duration of Studies	Total Enrolment	Admissions	Graduates
BRUNEI	••					
INDONESIA (1)	1997 1998	32	6 years			2,545 2,196
JAPAN (2) a)	1999	80	6 Years	47,796	7,490	7,776
MALAYSIA (3)	1999 / 2000	5	5 – 6 Years	2,679		
PHILIPPINES (4) b)	1997	30	Pre-Med-4 Years Proper-4 Years Intern-1 Years	12,000	3,800	2,500
SINGAPORE (5)	1999 / 2000	1	5 Years	c) 821 d) 67	c) 183 d) 17	c) 145 d) 11
THAILAND (6)	1999	11	7 Years		805	(7) 1,148
VIETNAM (8)	1996	e) 9	6 Years	13,382	2,950	1,797

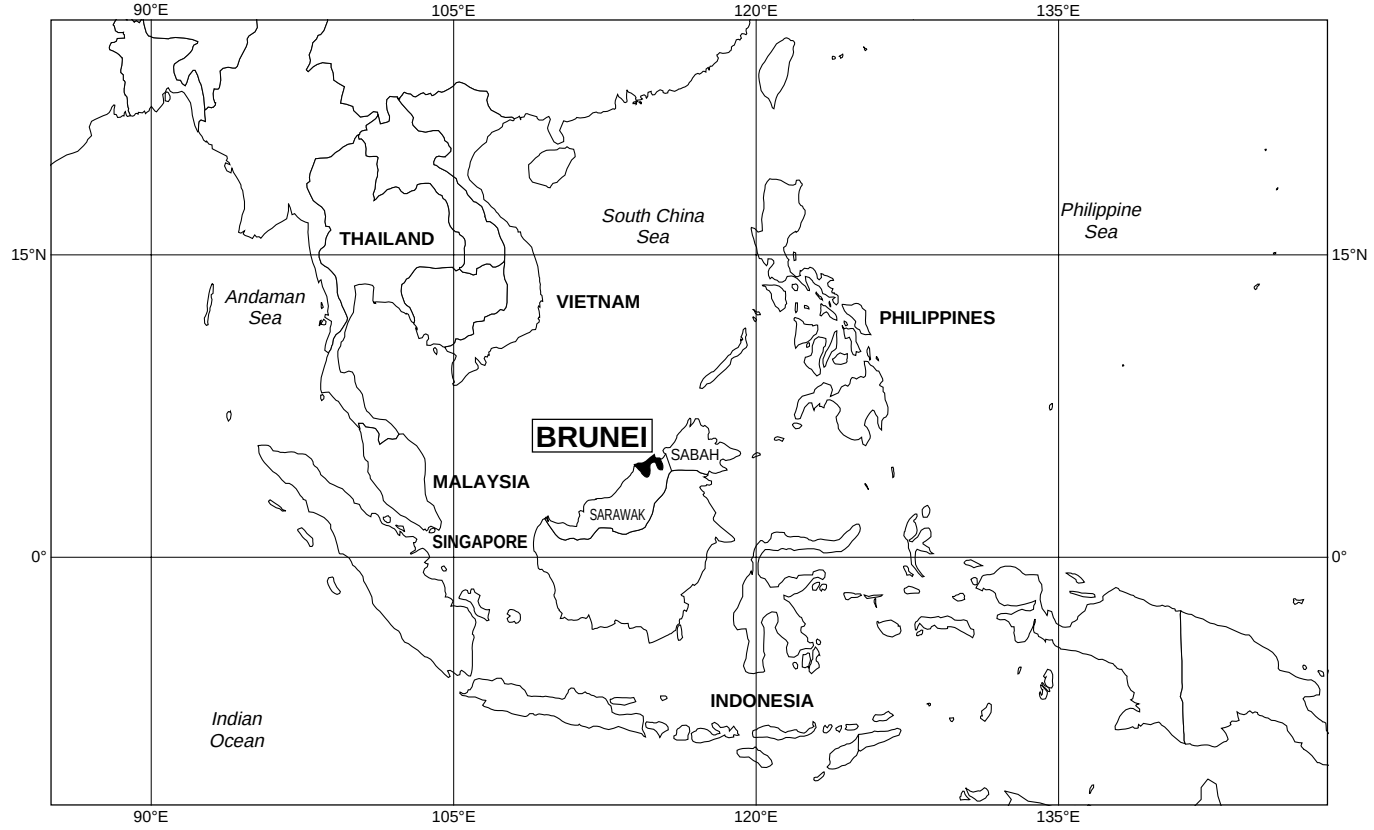
Source : (1) Consortium Medical Science
(2) ***School Basic Survey,*** Ministry of Education, Science, Sports and Culture, and National Defense Medical College
(3) Ministry of Education
(4) Association of Philippine Medical Colleges, Manila
(5) National University of Singapore
(6) Ministry of University Affairs
(7) Thai Medical Council
(8) Ministry of Health and Ministry of Education

Note : a) Data on 1 May, 1999
b) Estimated
c) Singaporeans
d) Non-Singaporeans
e) 5 medical colleges belong to Ministry of Health and 4 medical departments of universities belong to Ministry of Education

Part II

An Outline of Health Statistics
in
SEAMIC Countries

Negara Brunei Darussalam



Negara Brunei Darussalam

1. Population Statistics

(1) Background Information

The main sources of information on population are censuses. The first census took place in 1911 and the last decennial census was conducted in 1991. The population projections are made based on an analysis of trends in the components of population change, i.e., fertility, mortality and migration for the period 1981 to 1991.

(2) Purpose

The main purpose is to satisfy the internal need for statistical information on population, housing and agricultural activities, thereby providing the background for general planning purposes and for the Brunei Darussalam National Development Committee which requires timely and reliable data as essential information.

(3) Coverage

Nationwide

(4) Contents

In the 1991 (latest) census, the information collected could be classified under the following categories:

(a) Geographical, census house and census household characteristics;
(b) Demographic and personal characteristics;
(c) Educational characteristics;
(d) Fertility characteristics;
(e) Economic characteristics.

(5) Data Collection Procedures

In the 1991 population census, trained enumerators visited every house or building suspected of being used for habitation to collect information pertaining to name, identity card number, relationship to head of household, sex, age, place of birth, citizenship, marital status, religion, level of education, age at first marriage, number of children born alive, employment and income of each person staying in the house or building

during the census night, i.e., the night of 26 August 1991.

(6) Tabulation and Publication

The Department of Economic Planning and Development is responsible for the tabulation and release of census results. The data are also published in the *Brunei Darussalam Statistical Yearbook.*

2. Vital Statistics

(1) Background Information

The main source of information on vital statistics is the compulsory vital registration of births and deaths. The occurrence of birth and death events is registered by law. The registration system has been operative since 1 January 1923 under the "Births and Deaths Registration Act". Although stillbirths have been recorded, they are not registered by law.

(2) Coverage

Nationwide

(3) Contents

Statistics and health indicators derived from the vital registration system include:

Births

(a) Number and rate by sex, race, urban/rural, month;
(b) Number by district/registration area;
(c) Crude birth rate.

Deaths

(a) All deaths: Number and rate by age, sex, race, nationality, month and causes;
(b) Number by district/registration area;
(c) Infant deaths: Number and rate by age, sex, district/registration area and cause;
(d) Neonatal deaths: Number and rate by sex, district/registration area and cause;
(e) Early neonatal deaths: Number and rate by sex, district and cause;
(f) Stillbirths: Number and rate by sex and district/registration area;

(g) Perinatal deaths: Number and rate by sex and district/registration area;
(h) Maternal deaths: Number and rate by district/registration area;
(i) Crude death rate;
(j) Causes of death by age and sex (coding based on ICD-10).

(4) Data Collection Procedures

The vital registration system is operating in 25 registration areas under the supervision of six Deputy Registrars. The responsible agency is the Registration of Birth and Death and Adoptions, under the Department of Immigration and Registration of Nationals, Ministry of Home Affairs. The vital events information is now processed by the Registration of Birth and Death and Adoptions.

(5) Tabulation and Publication

The vital events information is presented in the *Public Health Services Annual Report*, and *Annual Vital Statistics*, a publication issued by the Statistics Division, Department of Economic Planning and Development, Ministry of Finance, Brunei Darussalam.

3. Morbidity Statistics

(1) Background Information

Hospital and health centre outpatient as well as inpatient information are being collected. Notifiable and infectious disease statistics are also collected from hospitals, health centres, laboratories and general practitioners. The Disease Control Unit, which is under the Public Health Directorate is responsible for the epidemiological surveillance capactiy of the country.

(2) Purpose

To study the general pattern and trend of morbidity situation in Brunei. To take prompt action on the occurrence of notifiable diseases.

(3) Coverage

All inpatients and outpatients.

(4) Contents

Diseases by age, sex, average length of stay, district and Bruneian/non-Bruneian.

(5) Data Collection Procedures

The notifiable disease statistics are collected through telephone, fax and specially designed yellow forms. The inpatient morbidity data are collected, based on individual case summaries of discharged patients, while outpatient morbidity data are collected, based on outpatient folder request forms. The disease coding is done by physicians and trained medical coders. A one-day morbidity survey of private clinic outpatients in Brunei Muara District was carried out on 1st July 1999.

(6) Tabulation and Publication

The Medical Records Officers at the Government hospitals are responsible for compilation of the source information. The Medical and Health Statistics Unit Research and Development Section in the Ministry of Health is responsible for collection, compilation, processing, analysis and interpretation of the information.

4. Public Health Statistics

Statistics are collected on maternal and child health services, out-patient services, primary health care training, school health services, Expanded Programme of Immunization, Environmental health (food safety, pollution control and vector control), port health, disease control, nutrition, psychology, building and development, and health education programmes. Monitoring and evaluation indicators have accordingly been developed and are used for the assessment of these programmes.

5. Hospital Performance Statistics

The Medical and Health Statistics Unit, Research and Development Section, Ministry of Health is collecting hospital administrative statistics to obtain information on the workload, bed-usage and activities in order to plan, monitor and evaluate the hospital services. In so doing, the nursing census is properly maintained in all hospitals. These statistics are collected by using a specially designed hospital activities format. Its contents relate to inpatient/outpatient/surgical/dental/miscellaneous activities, laboratory and ra-

diological investigations, X-ray and blood transfusions, obstetric services, results of care, and information on beds.

6. Monitoring System

At the early part of 1991 Ministry of Health introduced a planning instrument called PIP (Performance Improvement Programming). The PIP concept is a planning process applied in Health Programming for Improved Performance. This approach is similar to the Country Health Programming Instrument used in some WHO member countries. Based on this PIP, the monitoring system for Medical Care and Public Health Programmes was developed and put into operation by the Ministry of Health in April 1991. Regular meetings have been held ever since, at which the performance of the programme activities is monitored.

7. Health Manpower Statistics

(1) Background Information

Special health manpower registers for doctors, dentists, pharmacists, nurses and midwives are systematically kept. Another source of health manpower data is from administrative records. This source covers all categories of personnel working under the Ministry of Health.

(2) Purpose

To provide up-to-date information for health manpower planning.

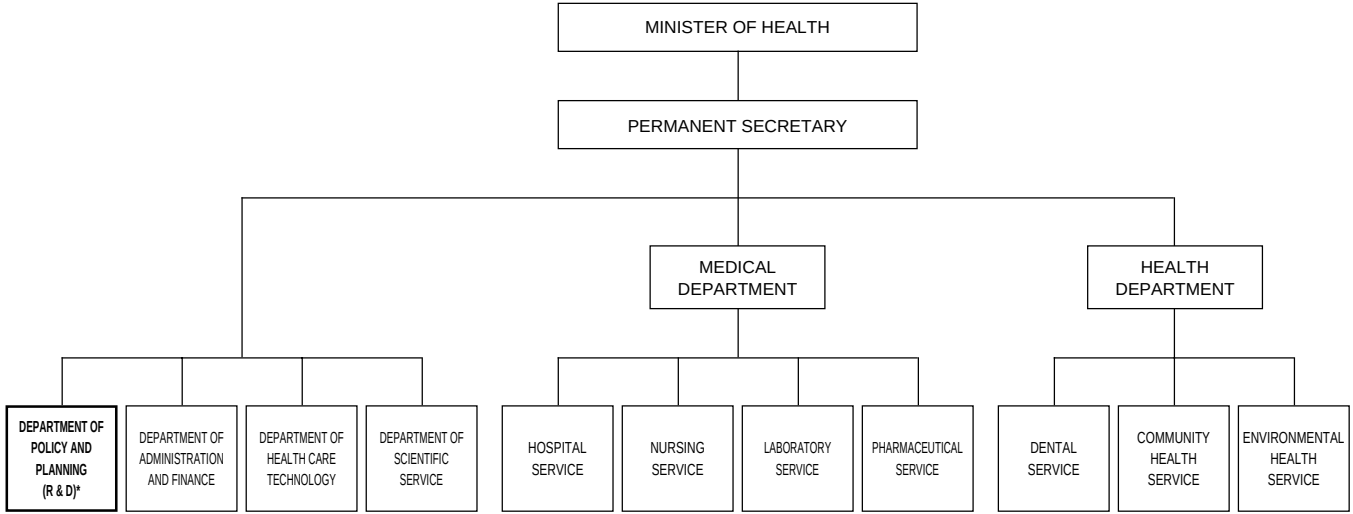
(3) Coverage

All doctors, dentists, pharmacists, nurses, midwives, etc.

(4) The Plan

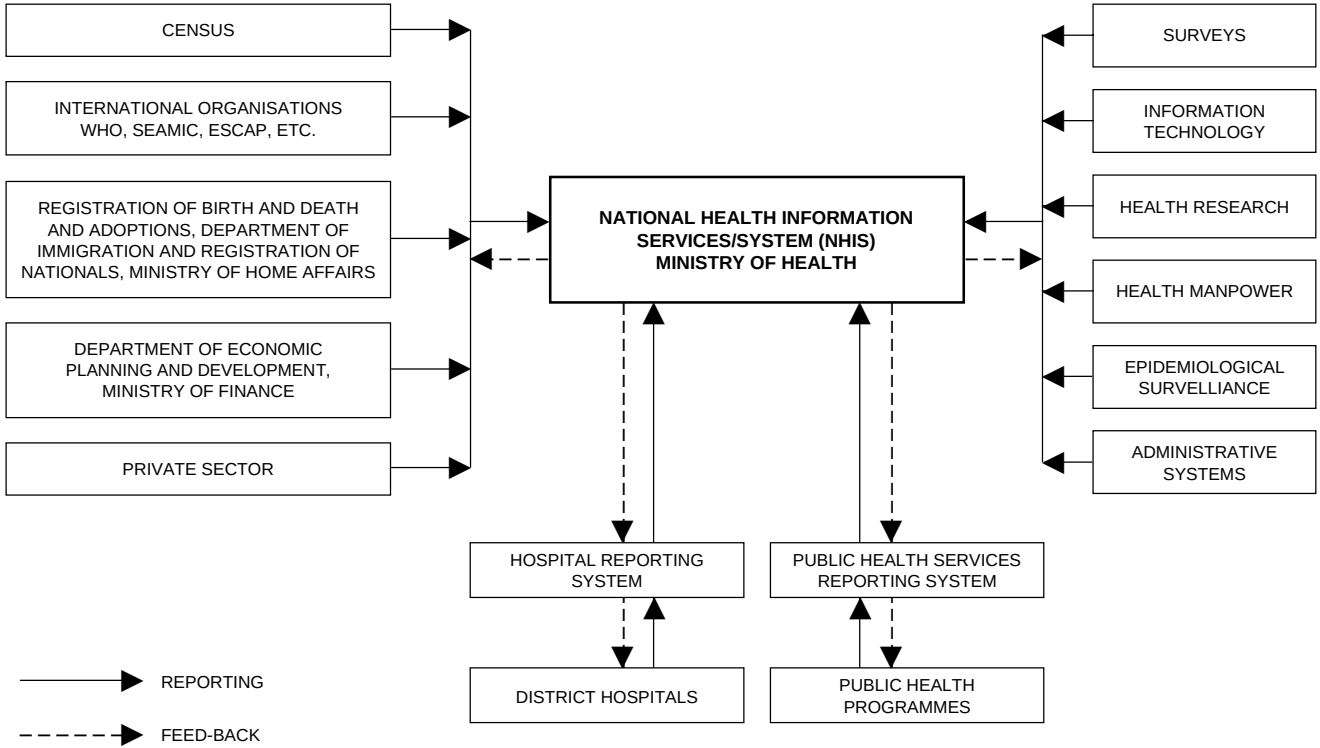
The Manpower Development and Management Unit and the Research and Development Section are planning to develop a comprehensive health manpower information system.

Organization Chart of the Ministry of Health, Brunei Darussalam

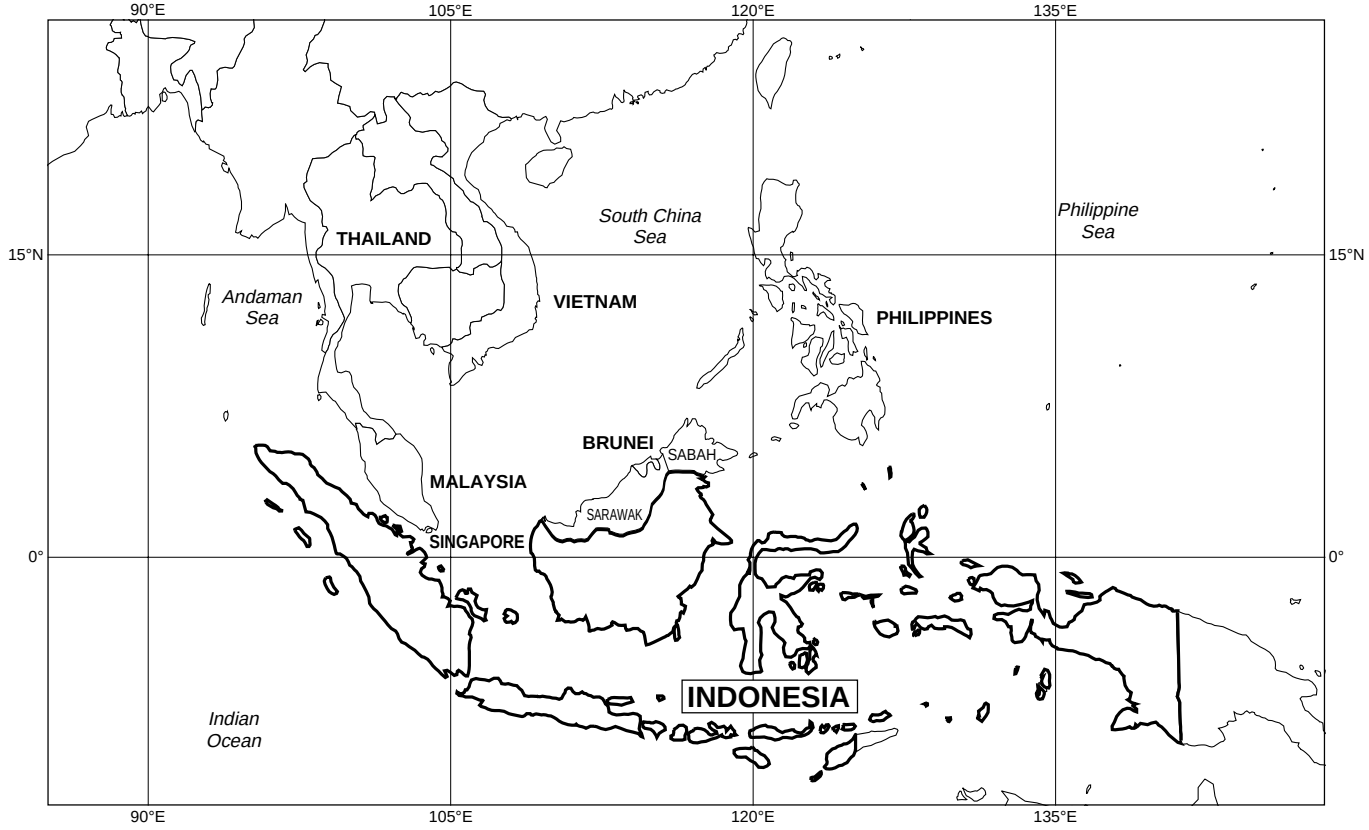


*R & D = Medical and Health Statistics Unit, Research and Development Section

Flow of Health and Health-Related Information



Indonesia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THAILAND
South China Sea
Philippine Sea
Andaman Sea
VIETNAM
PHILIPPINES
BRUNEI
SABAH
MALAYSIA
SARAWAK
SINGAPORE
INDONESIA
Indian Ocean

Indonesia

1. Population Census

(1) Purpose

To obtain the latest data and information on the population for monitoring and evaluating the development programmes such as health, housing, education, etc.

(2) Methodology

The scope of the census is the whole population who live or stay in Indonesia, either Indonesian citizens or foreigners (excluding diplomatic corps), ship crews on Indonesian flagships in Indonesian waters, nomadic groups and homeless persons.

The ceusus collects data on migration, education, mortality, natality and other vital statistics, etc.

The data are collected once every ten years so that annual data can only be obtained through estimation and projection.

The data are collected in two phases. In the first phase, a complete census of the whole population is done to collect basic information on the number of population by sex and citizenship. In the second phase, five percent of the total population is taken as a sample to collect more detailed information.

The Central Bureau of Statistics organizes the activities.

2. Intercensal Population Survey

(1) Purpose

The objectives of the survey are:

a. to estimate the number of population in the time period between two censuses;
b. to estimate birth rates, death rates, and population mobility;

c. to collect socio-economic data on the population;
d. to collect information on building and housing.

(2) Methodology

The survey covers all geographical areas and populations that have permanent residence in the Indonesian territory. The data are collected once every ten years, namely, in the middle year between two successive censuses.

In the first phase of the survey, all households in the latest census are listed. Based on the list, some households are selected as samples in such a way that the number of the sample households becomes ten times the number of selected census blocks in the district. The data are collected through interview with respondents during the second phase of the survey. The data collected in the second phase consist of information about the family and the house; individual information relates to socio-economic characteristics, marriage, birth, family planning, health, death, migration, and labour force or activity.

The Central Bureau of Statistics organizes the survey.

3. Epidemic and Communicable Disease Report

(1) Purpose

To monitor closely some communicable diseases which are epidemic or potentially epidemic that might give rise to an outbreak or unusual events.

(2) Methodology

The scope of the report is the whole population who are reached by health facilities or personnel. The types of communicable diseases being reported are:

a. Quarantinable or serious epidemic diseases such as cholera, typhus, poliomyelitis and diphtheria;
b. Potentially epidemic diseases which spread quickly or cause high mortality and require quick action, namely, dengue hemorrhagic fever (DHF), measles, pertussis and rabies;
c. Other potential epidemic diseases, such as malaria, framboesia, influenza, anthrax, hepa-

titis, typhus abdominalis, meningitis, encephalitis, tetanus and tetanus neonatorum;

d. Other communicable diseases which are not potentially epidemic such as worms, leprosy, tuberculosis, syphilis, gonorrhoea, filariasis, etc.

Amongst those diseases, only diseases in item a. and b. need to be reported weekly, provided there is no epidemic. The others must be reported through the Health Centre's recording and reporting system, but if there is an epidemic, it must be reported immediately within 24 hours.

In the recording and reporting system, there are two types of form to be used.

(i) W-1 Form.

This form is used to report an outbreak or unusual events within 24 hours by all health facilities to the administrative level one step up.

Since it is a rough report on an epidemic, the report should be followed up with a temporary epidemiological investigation, and a plan of actions.

(ii) W-2 Form.

This form is used to report weekly some potentially epidemic diseases such as cholera, diarrhoea, typhus, DHF, rabies, diphtheria, poliomyelitis, pertussis, measles and other communicable diseases which are endemic at the time of outbreak.

The reports are done by all health facilities to the administrative level one step up.

The Directorate General of Communicable Diseases, Ministry of Health, Provincial Health Service, District Health Service and Health Centres organize the activity at the central, provincial, district and subdistrict levels, respectively.

4. Food Balance Sheets

(1) Purpose

The objectives of composing Food Balance Sheets are:

a. to present the food consumption pattern in general, namely, composition of food commodities, total consumption of calories and protein and fats, for monitoring and evaluating nutrition programmes;

b. to describe the distribution of the food supply

for export, import, industrial use and also for domestic consumption;
c. to indicate the quality of the basic data available on exports, imports, conversion factors used, and the per capita consumption.

(2) Methodology

The Food Balance Sheets cover all information dealing with the food consumption pattern and its nutrients, distribution of food supply for export, industrial use and domestic consumption and its quality.

The available annual data are compiled using FAO methods, in which some necessary adjustments have to be made based on the existing data in Indonesia.

The Central Bureau of Statistics assisted by the FAO experts in collaboration with the Food and Nutrition Unit of the Ministry of Agriculture undertakes the composition.

5. National Household Health Survey

(1) Purpose

To obtain the latest data and information on the health situation of the population, especially on:

a. morbidity and mortality pattern;
b. fertility, pregnancy and child delivery pattern;
c. pattern of health facilities utilization, both governmental and private;
d. condition of environmental health;
e. knowledge, awareness and practice (KAP) and community participation in health service;
f. nutritional status of infants, children, and pregnant women.

(2) Methodology

Due to the limitations in resources and coverage of the survey, the number of persons selected as a sample is limited. The survey might not be able to cover every aspect of change in the health situation in the year of the survey. The survey is done once every five years.

Data are collected through interviews, environmental observation, and physical and laboratory examination. The head of the household acts as the respondent in the interview.

Six types of questionnaire are used to ask data on

characteristics of household and living environment, individual characteristics, morbidity, mortality, and pregnancy and delivery.

A stratified multistage random sampling is done based on the clusters of the infant mortality rate.

From each cluster one province is chosen whose characteristics are considered to approximately correspond to the median of the values. In each province chosen, random sampling of districts and subdistricts is done to select three districts, and two or three subdistricts in each district. Approximately 889 households are selected in each subdistrict or about 4,445 population.

The Institute of Health Research and Development, Ministry of Health organizes the survey.

6. National Socio-Economic Survey

(1) Purpose

To collect data on the population which are related to socio-economic activities.

(2) Methodology

The survey covers all geographical areas and populations of Indonesia, and collects information on population, health, fertility, household expenditure, crime, housing and environment.

The samples are drawn from both urban and rural areas. In the rural areas, the samples are collected in four stages. The first two stages are meant for the selection of subdistricts and villages, respectively, which is conducted using the probability sampling proportional to the total population. In the third stage, census blocks are selected using a random sampling procedure, and in the last stage, nine households are selected from each census block systematically. In the urban areas, the samples are drawn systematically in two stages: selection of clusters and households. A cluster is part of a village which consists of 50 households or 250 population living close to each other and which has a clear boundary. From each cluster nine households are selected.

The survey covers approximately 25,000 to 100,000 households and in each quarter one fourth of the households are to be visited for survey.

The Central Bureau of Statistics organizes the activities.

7. Hospital Recording System

(1) Purpose

To obtain the latest data and information from hospitals concerning hospital activity or service.

(2) Methodology

The recording covers all hospitals in Indonesia, either governmental or private. There are some limitations to the data being collected:

a. the morbidity and mortality rates resulted from the hospital records do not cover all population in the district area;
b. data on hospital service comprise hospital outpatient visits and inpatient care.

The data on morbidity and mortality are based on a ten-day sampling in three months. The data on visits and delivery are based on the daily census.

All of the data are recorded in the registers or individual records. Individual records are used for inpatient care including delivery. Based on the registers, quarterly reports are made.

The Directorate General of Medical Care organizes the activity, whereas the Centre for Health Data organizes the activity in the pilot project areas.

8. Health Manpower Recording and Reporting System

(1) Purpose

To obtain data on health manpower and personnel, health schools and their students, and also data on training activities.

(2) Methodology

The activity covers all health personnel who work in health offices, government health centres, and hospitals, either governmental or private. It covers also all health schools and their students. Training of health personnel is also included in the activity.

a. Health personnel records:
Every health personnel fills in the computerized form to record individual biodata and other attributes such as educational level, place of work, salary, etc. Every change of

those attributes should be reported for updating.

b. Health Schools:
Every health school should record and report basic data on the school such as the number of teachers, number of classrooms, number of students and amount of budget, etc. Besides, every students should report his or her biodata, status and its changes.

c. Data on health personnel training are reported, pertaining to the type of training, duration, budget, and number of personnel trained.

The Centre for Health Data organizes the activity.

9. Consortium of Health Sciences (CHS)

(1) Purpose

To obtain data on the number of schools and graduates from all faculties of medicine in Indonesia to be used for planning and development of medical doctor education.

(2) Methodology

The activity covers all governmental medical schools in Indonesia; private schools are not included.

Every medical school should report the number of students in every class and also the number of graduates every year.

The Ministry of Education and Culture organizes the activity. All reports should be addressed to the CHS.

10. Recent Developments in the Health Information System

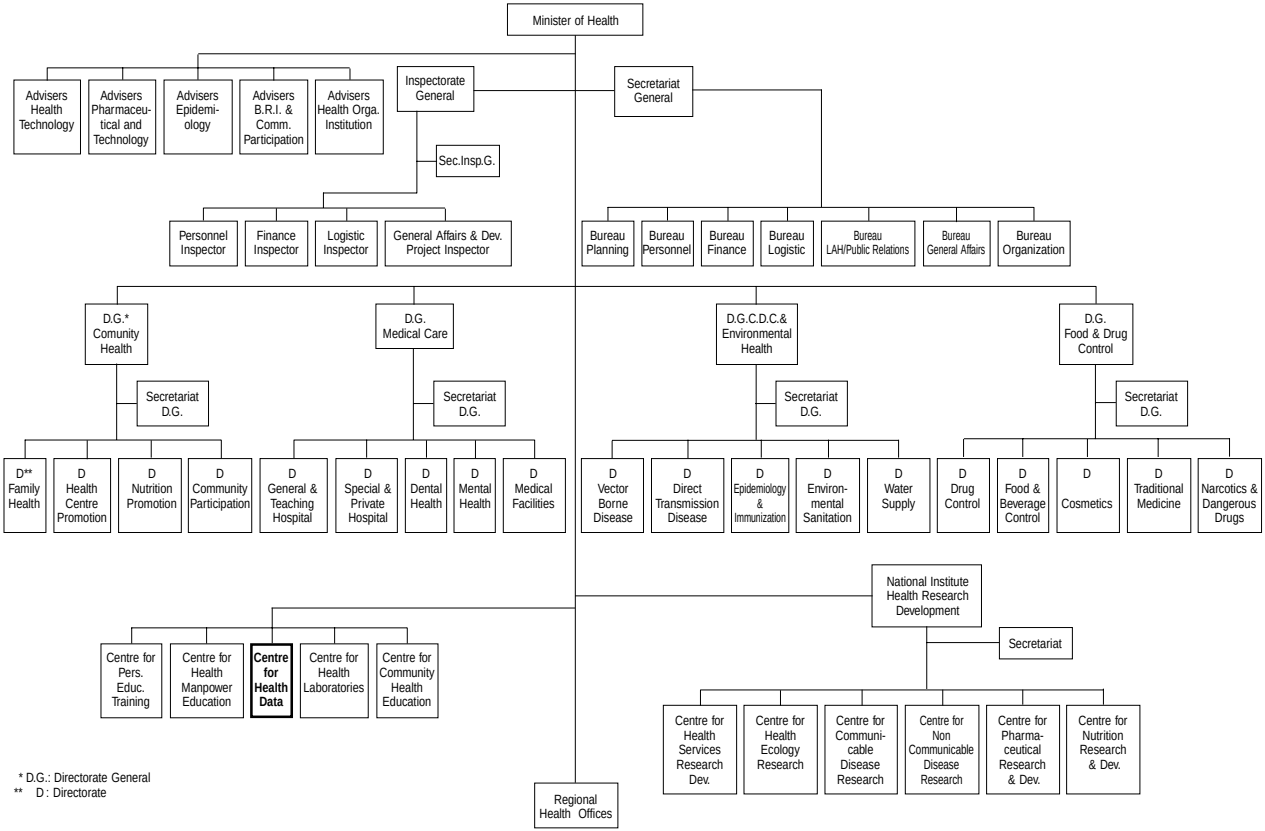
Since 1988, the Centre for Health Data, Ministry of Health initiated the preparation of the National Profile and Provincial and District Annual Health Profiles to be used among others as supportive information for policy formulation and decision-making at each government level. Furthermore in 1994, the Ministry of

Health developed monthly and trimonthly executive reporting from each Provincial Health Office to the Health Minister.

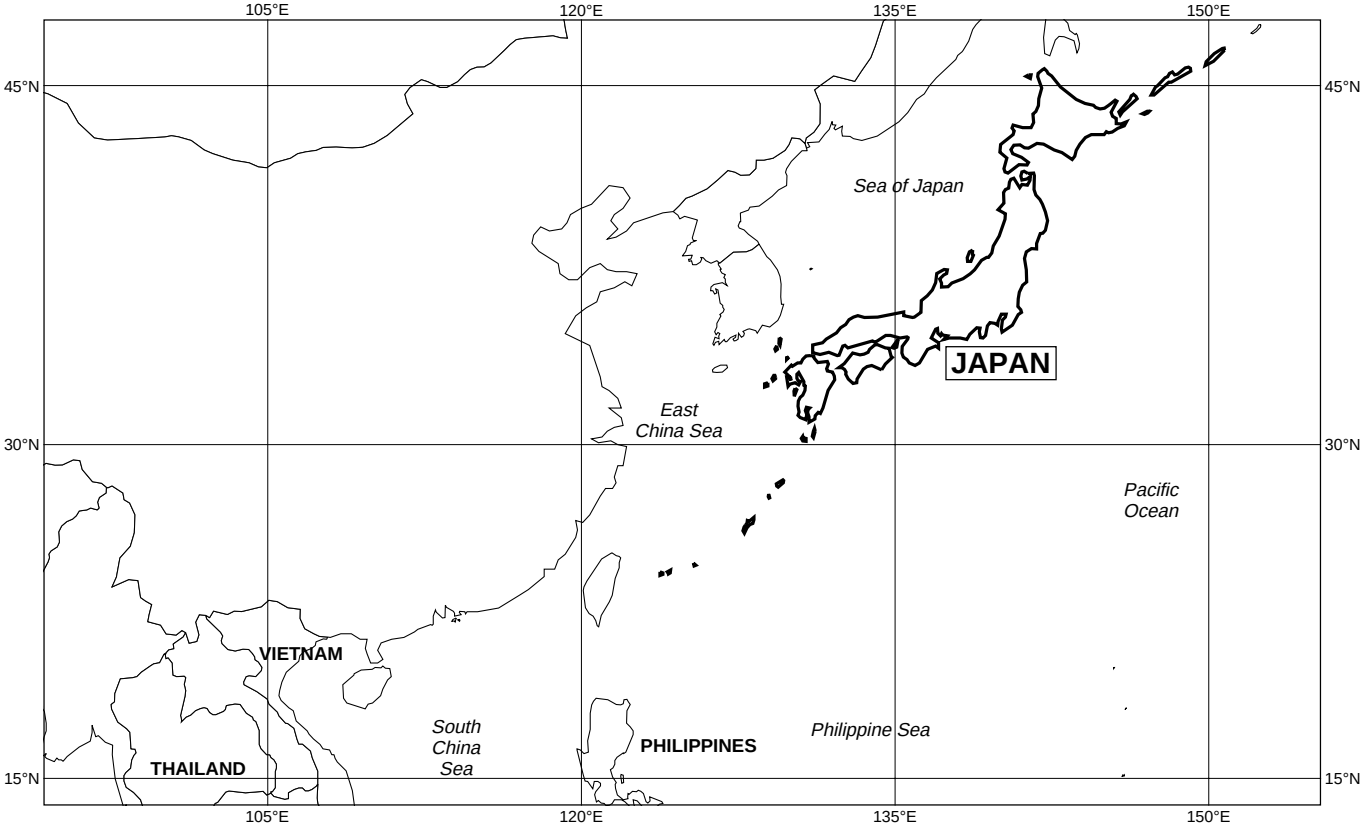
Recent technological advances in computing and informatics offer almost unlimited opportunities for the improvement of the information system. To support the executive functions at national level, the local area network (intranet) and the wide area network (internet) have been developed. At the web site http://www.depkes.go.id the Indonesian country health profile is accessible.

(Centre for Health Data and Information, Ministry of Health)

Organization Chart of the Ministry of Health, Indonesia (as of 1 December 2000)



Japan


105°E
120°E
135°E
150°E
45°N
30°N
15°N
Sea of Japan
JAPAN
East
China Sea
Pacific
Ocean
VIETNAM
South
China
Sea
PHILIPPINES
Philippine Sea
THAILAND

Japan

Notes

A large-scale reform of the central government was implemented as of 6 January 2001. Several ministries were merged and restructured. The changes introduced in the ministries and offices responsible for the generation of the types of statistics included in this publication are as follows:

Old	New	Remarks
Ministry of Health and Welfare	Ministry of Health, Labour and Welfare	Merger with the former Ministry of Labour
Ministry of Education, Science, Sports and Culture	Ministry of Education, Culture, Sports, Science and Technology	Incorporation of the former Science and Technology Agency
Statistics Bureau (The Bureau belonged to the Management and Coordination Agency.)	Statistics Bureau and Statistics Center (The new entity belongs to the Ministry of Public Management, Home Affairs, Posts and Telecommunications.)	Merger with the Statistics Center (The former Agency was incorporated in the newly formed Ministry.)

In the present edition, however, the old names are still used in the table footnotes and in the description below, as the statistics presented in this edition were produced prior to the date of the reform.

1. Population Census

(1) History

Population censuses in Japan have been conducted every five years since 1920. The last 2000 Population Census was the seventeenth one.

After World War II, the scope of census-taking has generally been amplified so as to satisfy the increased demands from the variety of users of the census results.

The censuses include large-scale censuses and simplified censuses. The censuses taken every ten years starting 1920 have been the large-scale censuses, while the censuses taken quinquennially between the large-scale decennial censuses have been the simplified ones. The main difference between the two is the number of questions asked in the census. In a simplified one, questions are limited to basic characteristics of population, i.e., name, sex, age, marital status, etc., while a large-scale census covers questions on socio-economic characteristics such as occupation and industry in addition to the basic characteristics of population. The 2000 Population Census was taken as a large-scale census.

(2) Purpose

To provide data on the current situation of population in Japan.

(3) Coverage

The whole population in Japan.

A person is enumerated at the place where he or she usually lives and is counted in the population of that area.

(4) Date

As of 0:00 a.m. of 1 October of the census year.

(5) Contents of Questionnaire for the 2000 Population Census (large-scale census)

(i) For each household member (16 items)

a. Name
b. Sex
c. Date of birth
d. Relationship to the head of the household
e. Marital status
f. Nationality
g. Duration of residence at the present dwelling unit
h. Previous address five years ago
i. Educational record
j. Employment status
k. Hours of gainful work during the preceding week
l. Industry
m. Occupation
n. Work status (employed/self-sustaining)
o. Location of workplace/school
p. Transportation to the workplace/school

(ii) For the household (6 items)

a. Type of household (extended/nuclear family, etc.)
b. Number of household members
c. Source of income
d. Type of tenure (purchased/rental)
e. Total floor space
f. Type of building (detached/row house/ apartment house)

(6) Data Collection Procedure

The field enumeration of the 2000 Population Census was conducted, within their respective jurisdictions, by the mayors or the heads of city, ward, town and village, under the supervision of the governments of prefectures. The whole procedure was planned and administered by the Statistics Bureau under the Management and Coordination Agency, the Prime Minister's Office.

(7) Tabulation and Publication

The Statistics Bureau takes charge of the whole tabulation and releases the results through publications and other media.

2. Vital Statistics

(1) History

The Family Registration System was established and came to function as a permanent source of vital statistics in 1872. A modern system for compiling vital statistics was introduced in 1899 through central processing of individual reporting forms on vital events. The jurisdiction of vital statistics system was transferred from the Statistics Bureau, Prime Minister's Office to the Ministry of Health and Welfare in 1947, with a view to making full use of the collected data mainly for public health activities.

(2) Method of Collecting Data

The basic characteristics of the present vital statistics system are based on the Family Registration System, which registers each individual's legal status under the jurisdiction of the Ministry of Justice.

According to the provisions of the Family Registration Law, vital events of birth, death, marriage and divorce have to be reported to the head of the local administrative office. The event of stillbirth (fetal death) also has to be reported under the provisions of the Stillbirth Report.

A birth report has to be accompanied with a birth certificate by the physician or the midwife who attended the delivery. The report should be submitted by either father, mother, a person who lives with them, or anyone who attended the delivery, within 14 days after the birth.

A death has to be reported with a doctor's death certificate or autopsy report. The death report has to be submitted by a relative or anyone who lived with the deceased, the landowner, or the custodian, within 7 days after the death or the time when the death was known.

The report on stillbirth has to be made with a doctor's or midwife's certificate of stillbirth, and is to be submitted by father, mother, any person who lives with them, or anyone who attended the delivery, within 7 days after the stillbirth.

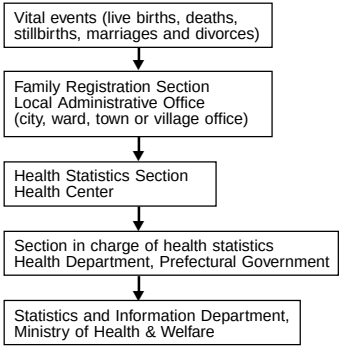
The channel of collecting vital statistics data can be illustrated in the chart shown below.

(3) Publications on Vital Statistics

The results of vital statistics are published by the Statistics and Information Department, Ministry of Health and Welfare on a periodical basis in the following three publications:

a. *Monthly Brief Report on Vital Statistics*
The Monthly Brief Report covers total figures

Channel of collecting vital statistics data



1. Reporting.
2. Report accepted after scrutiny.
3. Vital statistics schedules prepared.
4. The schedules forwarded to the Health Centers immediately.
5. All schedules examined.
6. The schedules submitted to the Prefectural Government before the 25th of every month.
7. The schedules examined.
8. The schedules submitted to the Ministry of Health and Welfare before the 5th of the following month.
9. Vital statistics are tabulated, analysed and published monthly and consolidated annually.
10. Supervision and guidance given to local authorities in the handling of vital statistics.

of live births, deaths, stillbirths, marriages and divorces by prefecture. The figures stated in this report represent only the number of forms submitted for each type of vital events forwarded from Prefectural Governments and received by the Ministry of Health and Welfare. The Brief Report is published 2 months later.

b. *Monthly Report on Vital Statistics*
The Monthly Report containing the figures derived from the processed data is published 5 months after the month of occurrence of the vital events. This report covers a wider variety of detailed tables of results than the Brief Report referred to above.

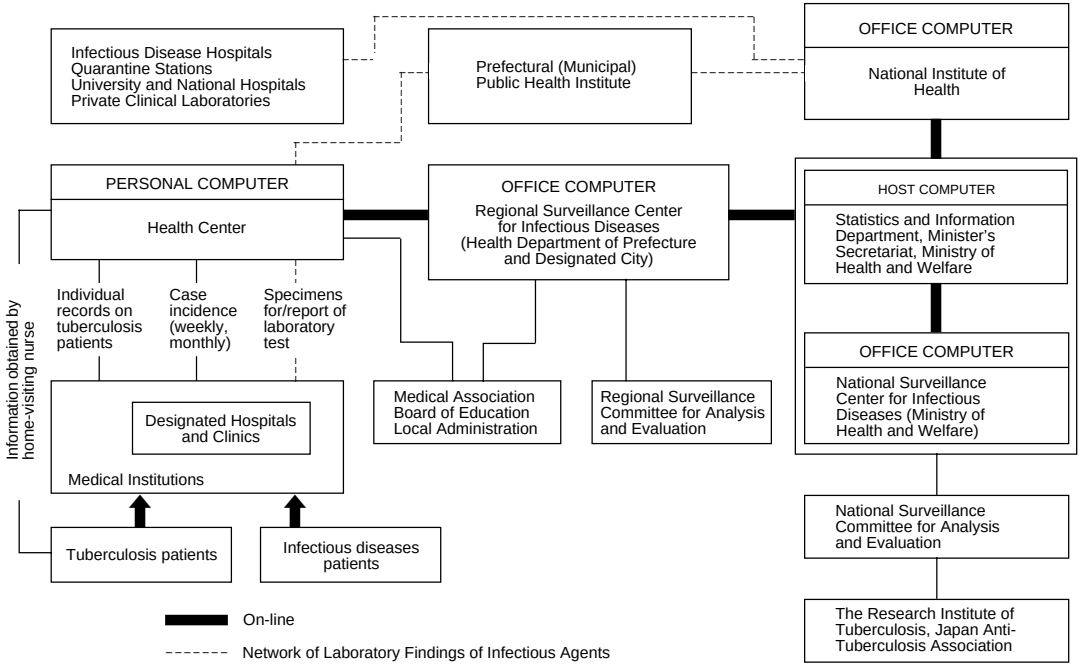
c. *Annual Report on Vital Statistics*
The Annual Report is a fundamental one among the periodical publications on vital statistics. The Report includes a wide variety of detailed tables and presents final tabulations of vital statistics in Japan. The Report is published one year after the year of occurrence.

3. Infectious Disease Surveillance System

The Infectious Disease Surveillance System, designed to investigate epidemics of various communicable diseases on a weekly or monthly basis, was introduced in 1981 in all prefectures and large cities, in collaboration with over 3,000 designated clinics/hospitals. This system was then developed into a computerized on-line system in 1987 to facilitate communication and analysis of surveillance information. The outline of the surveillance system is illustrated in the following chart. The number of designated clinics/hospitals was allocated in proportion to the population served by each health center, including clinics/hospitals for pediatrics, internal medicine, urology, dermatology and ophthalmology.

A new Infectious Diseases Law was implemented in April 1999, focussing on the citizens' own initiative for disease prevention and for appropriate medical care rather than mass prevention of diseases. Diseases are classified into 4 groups according to the degree of infectivity and severity. All the 12 diseases in groups 1, 2 and 3, and 33 of the 60 diseases in group 4 have been designated as reportable by all medical care institutions: Ebola virus disease, Crimean-Congo hemorrhagic fever, plague, Marburg virus disease and Lassa fever in group 1; acute poliomyelitis, cholera, shigellosis, diphtheria, typhoid fever and paratyphoid

Infectious Disease Surveillance System



fever in group 2; enterohaemorrhagic *E coli* diarrhea in group 3; and amebic dysentery, viral hepatitis, AIDS, tsutsugamushi fever, syphilis, etc. in group 4. Twenty-seven diseases of group 4 have been subjected to sentinel surveillance, such as influenza, group A hemolytic streptococcal pharyngitis, infectious gastroenteritis, varicella, herpangina, measles and mumps.

4. Patient Survey

(1) History

The annual Patient Survey was formally established in 1953, though some morbidity data had been collected annually since 1948.

A major modification in the structural management and procedure was made in 1984. The address of the patient was added to the questionnaire and the sampling rate was increased. Since then the survey has been conducted every three years.

(2) Purpose

To obtain fundamental information about patients treated in medical institutions.

(3) Coverage

In the 1996 survey, 6,649 hospitals, 5,879 general clinics and 991 dental clinics were randomly selected after stratification by prefecture. The sampling rates were: 70% for hospitals, 7.5% for general clinics and 2.0% for dental clinics.

(4) Date

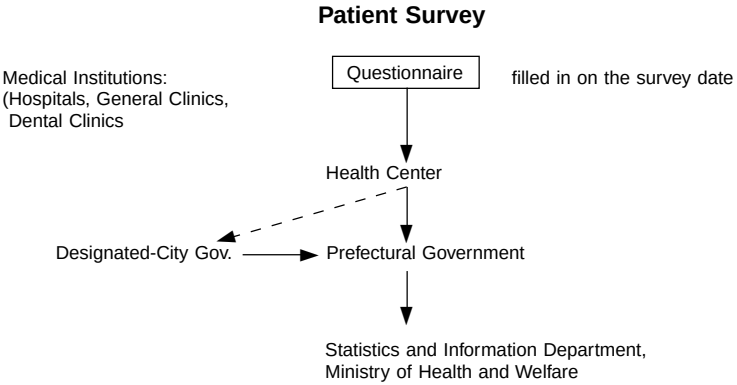
As of one designated day of October (since 1984 once every 3 years).

(5) Contents of Reporting Forms

a. Sex
b. Date of birth
c. Address
d. Type of treatment
e. Diagnosis
f. Specialty of medical facility
g. Type of health insurance
h. Date of the last visit
i. Route of reference

(6) Data Collection Procedure

The questionnaires completed by the responsible institution are submitted to the health center of the area. Those collected are sent to the Statistics and In-



formation Department of the Ministry of Health and Welfare through the prefectural and, where applicable, designated-city governments.

(7) Tabulation and Publication

The Statistics and Information Department is responsible for the tabulation and releases the results through publications and other media.

5. National Nutrition Survey

(1) History

The National Nutrition Survey in Japan has been conducted annually for more than 50 years. It was started in 1945, under the instructions of the Allied Forces occupying Japan (1945–1952), to assess the nutritional conditions and socio-economical aspects of the Japanese people, with a view to acquiring urgent food supplies from other countries. At the beginning, the survey covered only the Tokyo area, but it was rapidly expanded to become nation-wide in 1948.

In 1952, the Nutrition Improvement Law was enacted, in which the aim of the National Nutrition Sur-

vey and its enforcement were also stated. Under the law, the nutritional conditions of the Japanese have been improved, and, with the high economic growth from around 1960, the dietary habits of the Japanese have been "modernized" and malnutrition has become rare. On the other hand, an excessive intake, which may be related to obesity, heart diseases, diabetes mellitus and other chronic diseases, has become a more important concern in the nutrition policy. The focus of this survey has therefore been shifted from the policy-making for food supplies to the monitoring of excessive food intake, prevention of diet-related chronic diseases, and health promotion.

(2) Purpose

The Nutrition Improvement Law states that this survey should aim to monitor the food consumption and the nutrient intake of the Japanese people, and to clarify the relationship between nutrition and health conditions, in order to obtain basic data for the nutrition and health promotion policy.

(3) Coverage

In the 1998 survey, about 15,000 persons from about 5,000 households in randomly selected 300 census enumeration districts were investigated.

(4) Date

One day in November 1998.

(5) Contents of Reporting Form

a) Physical check for individual persons

1) Anthropometry: height and body weight [aged one year or over]
2) Blood pressure measurement (sitting position) [aged 15 years or over]
3) Interview on antihypertensive medication, smoking and drinking habits and physical exercise [aged 20 years or over]
4) Blood tests: Total protein, total cholesterol, triglyceride, HDL-cholesterol, blood sugar, red blood cells, hemoglobin [aged 20 years or over]
5) Physical activity: number of steps in a day measured by pedometer [aged 15 years or over]

b) Dietary study for households

1) Members who compose the household: age, sex, birth date, profession, pregnancy or lactation, level of physical activity, meals at home/outside/skipped
2) Food intake (weighed food record), names

of family members who shared each food

c) Dietary habits, etc. [aged 15 years or over]

The contents of this section change in each survey. In the 1998 survey, the focus was placed on the awareness and attitude regarding the amount and contents of food, physical exercise, desired level of body weight, and alcohol drinking.

(6) Data Collection Procedure

The Community Health, Health Promotion and Nutrition Division of the Health Service Bureau in the Ministry of Health and Welfare is responsible for the budget, planing and implementation of the survey.

The actual data collection is done by regional health centers under the supervision of the Health Promotion and Nutrition Division, and the prefecture or major city (the designated city) authorities. The survey team consists of physicians, public health nurses, dietitians, nurses, medical laboratory technicians, and assistant medical laboratory technicians.

(7) Tabulation and publication

The Statistics and Information Department is responsible for the tabulation and the Health Service Bureau for the publication of the results.

6. School Health Examination Survey

(1) History

The School Health Examination Survey has been carried out every year since 1948, though some changes have been incorporated over the years in its coverage and contents. The description below relates to the survey for 1998. The students' ages quoted in this description are those as of 1 April which is the beginning of a school year in Japan.

(2) Purpose

To investigate the status of physical development and health of pupils and students of schools, with a view to obtaining basic data for school health administration.

(3) Coverage

A sample of pupils and students attending kindergartens, elementary schools, lower secondary schools and higher secondary schools were selected by prob-

ability sampling. Kindergartens, where enrolment is not compulsory, cater for children aged 3, 4 and 5 years, with the enrolment rate of 62.3% in 1998. Only children aged 5 were included in this survey. Education at the elementary school (for 6-11 years of age) and at the lower secondary school (for 12-14 years of age) is compulsory, with the enrolment rate of 99.98% in 1998. Enrolment at the upper secondary school (for 15-17 years of age) is not compulsory, but the advancement rate to this level was as high as 96.8% in 1998. All ages were covered in this survey for those 3 types of school.

For each type of school, schools were first selected with probability proportional to size, and the selected schools were designated for the survey. For the physical development study, students in those schools were further selected by systematic sampling, separately for age and sex. For the health study, classes were selected separately for each grade, and all the students in the selected classes were included in the sample. The number of students in the sample for the 1998 survey is shown above.

Type of school	For physical development study	For health study
Kindergarten	72,380	79,828
Elementary school	270,720	520,334
Lower secondary school	225,600	391,062
Higher secondary school	126,900	211,353
Total	695,600	1,202,577

(4) Date

Between 1 April and 30 June 1998.

(5) Contents of the Reporting Form

For the physical development study: height, weight and sitting height. For the health study: nutritional state, vision, hearing, diseases of the eye, ear, nose, throat and skin, tuberculosis, intestinal parasites, diseases/abnormalities of the spine and chest, teeth and oral cavity, heart, etc.

(6) Data Collection Procedure

The Ministry of Education, Science, Sports and Culture requested, through the prefectural governors, the principals of the designated schools to collect the necessary data.

(7) Tabulation and Publication

The collected data were assembled by the Ministry for processing and analysis, and the results published in a report.

7. Statistical Report on Public Health Administration Services

(1) History

The Statistical Report on Home Affairs, the predecessor of the Statistical Report on Public Health Administration and Services, was initiated in 1886.

When the Ministry of Health and Welfare was established in 1938, the Report was newly started as the Statistical Report on Public Health Administration and Services.

The jurisdiction of the Report was transferred from the General Affairs Division of the Minister's Secretariat to the Statistics and Information Department in 1949, and thereafter there have been many changes in the reporting forms to meet the administrative demands.

(2) Purpose

To collect data on the present situation of the health administrative activities in the prefectural and designated-city governments.

(3) Coverage

All prefectural and designated-city governments.

(4) Date

As of 31 December, annually.

(5) Contents of Reporting Form

All administrative activities about mental health, nutrition, leprosy, communicable diseases, venereal diseases, clinical examinations, environmental sanitation, food sanitation, veterinary sanitation, medical care inspections, dental technicians, public health nurses and pharmaceutical affairs in all the prefectural and designated-city governments.

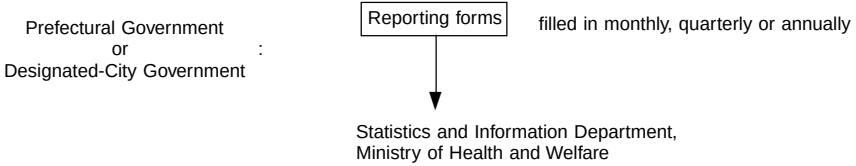
(6) Data Collection Procedure

The reporting forms filled by the responsible persons in the prefectural and designated-city governments are sent to the Statistics and Information Department of the Ministry of Health and Welfare.

(7) Tabulation and Publication

The Statistics and Information Department takes charge of the tabulation and releases the results through publications.

Statistical Report on Public Health Administration Services



8. Comprehensive Survey of Living Conditions of People on Health and Welfare

(1) History

Ad-hoc surveys of households had been conducted by the Ministry of Health and Welfare since 1945. The Comprehensive Survey of Living Conditions of People on Health and Welfare has integrated 4 such surveys and has been conducted since 1986.

(2) Purpose

To provide data on living conditions such as the health status, pensions, welfare, and incomes.

(3) Coverage

A detailed survey is conducted every 3 years, and a brief survey in each intervening year. In the detailed survey carried out in 1998, 5,240 census enumeration districts were randomly sampled after stratification, and all households and household members in those districts were surveyed. The sample comprised approximately 280,000 households and 780,000 household members.

On the other hand, a brief survey has been conducted with a sample of 1/5 the size of the sample for a detailed survey.

(4) Date

A designated day in June or July
Detailed survey: every 3 years
Brief survey: annually

(5) Contents of Questionnaire (used in the detailed survey in 1998)

(i) Questionnaire on Household (for all house-

holds selected)

a. Housing conditions, household expenditure, etc.
b. For each household member:
Sex, date of birth, participation in health insurance and pension schemes, occupational status, disability and long-term care received, etc.

(ii) Questionnaire on Health (for all members of the households selected)

a. Health status, symptoms and diseases
b. Visit to medical care institution and care received
c. Influence of health problems on daily living, mental stress, health check, etc.

(iii) Questionnaire on Income (for about 40,000 households subsampled)

a. Type and amount of income
b. Tax and social security contributions

(iv) Questionnaire on Saving (for about 40,000 households subsampled)

a. Amounts of savings and loans

(6) Data Collection Procedure

The interviewer-administered questionnaires on household and on income and the self-administered questionnaires on health and on savings are used in the Survey. The questionnaires on household and on health are submitted to the Health Center, while the questionnaire on income and savings collected by the investigator are submitted to the Welfare Office. All the collected questionnaires are then sent to the Statistics and Information Department of the Ministry of Health and Welfare through the prefectural and, where applicable, the designated-city governments.

(7) Tabulation and Publication

The Statistics and Information Department is responsible for the tabulation, and releases the results through publications and other media.

9. Census of Medical Care Institutions

(1) History

Before the formal establishment of the Census of Medical Care Institutions, the reporting on the number of facilities, their geographical location and type of

services provided had been included in the Statistical Report on Home Affairs.

After the first census of medical care institutions was conducted in 1948, some improvements were made in the census method and data collection procedure, and they resulted in the establishment of the Census of Medical Care Institutions in the present form, which has been conducted on a regular basis since 1953.

In 1973, a major modification was made in the structural arrangement and procedure, dividing the census into two portions, namely, the Main Detailed Survey and the Brief Monthly Survey.

(2) Purpose

To provide data on the geographical distribution, characteristics, manpower and equipments of medical care institutions.

(3) Coverage

All hospitals and clinics in Japan.

(4) Date

The Main Detailed Survey is conducted as of 1 October every three years, and the Brief Monthly Survey is done as of the end of every month.

(5) Contents of Questionnaire

(i) Main Detailed Survey

a. Name of medical care institution
b. Address
c. Type of ownership
d. Number of beds, by type of disease
e. Equipments installed
f. Specialty
g. Others

(ii) Brief Monthly Survey

This survey covers only the institutions newly registered or those reporting changes.

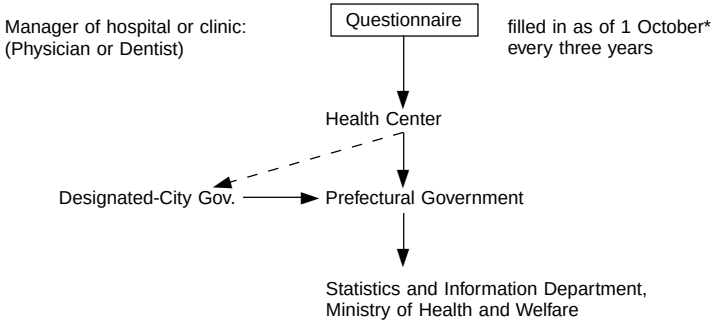
a. Name of medical care institution
b. Address
c. Type of ownership
d. Type of registration (establishment/abolition/suspension)
e. Number of beds, by type of disease
f. Specialty
g. Others

(6) Data Collection Procedure

The questionnaire completed by the responsible person in each institution is submitted to the health center that administers the area where the medical care institution is located. The collected questionnaires are

Census of Medical Care Institutions

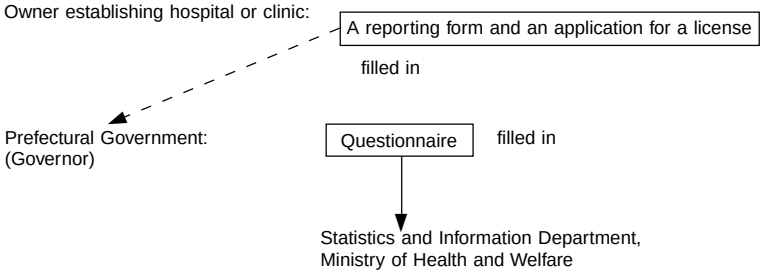
A. Main Detailed Survey

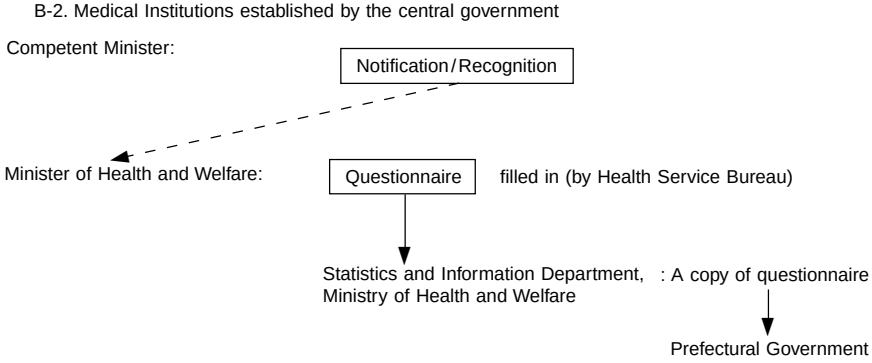


* Questionnaire had been filled in as of the last day of the year up to 1981.

B. Brief Monthly Survey

B-1. Medical Institutions except those established by the central government





sent to the Statistics and Information Department of the Ministry of Health and Welfare through the prefectural, and where applicable, designated-city governments.

(7) Tabulation and Publication

The Statistics and Information Department is responsible for the tabulation, and releases the results through publications and other media.

10. Hospital Report

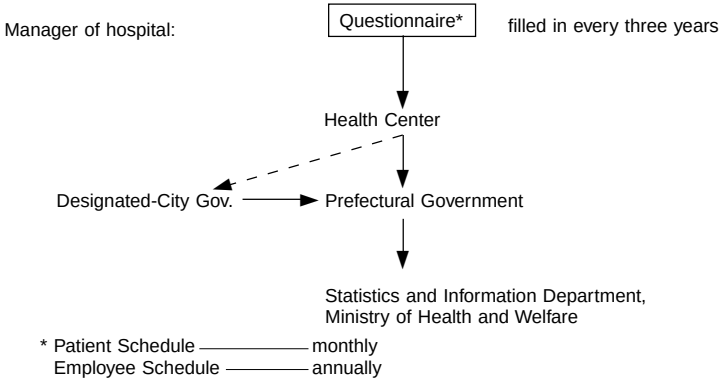
(1) History

The Report originated as the Weekly Hospital Report in 1945. In 1948 it was modified as a monthly report, together with the extension of the coverage by including tuberculosis and leprosy hospitals, and renamed as the Hospital Report, with the enactment of the Medical Service Law.

The number of newborns and the number of employees have been added to the items of the report since 1968 and 1973, respectively.

(2) Purpose

Hospital Report



The purpose of the Report is to provide data on the geographical distribution, present situation and utilization of hospitals.

(3) Coverage

All hospitals in Japan.

(4) Contents of Report Form

a. Patient form (monthly)
   Number of inpatients, outpatients, newborns, etc.
b. Employee form (annual)
   Number of physicians, pharmacists, nurses, etc.

(5) Data Collection Procedure

The report forms filled in by the responsible person of the hospitals are sent to the Ministry of Health and Welfare through the health centers and prefectural governments.

(6) Tabulation and Publication

The Statistics and Information Department takes charge of the tabulation and releases the results through publications and other media.

11. Survey on Physicians, Dentists and Pharmacists

(1) History

Originally, the Survey on Physicians, Dentists and Pharmacists was included in the Statistical Report on Public Health Services started in 1874.

With the enactment of the Medical Practitioners Law and the Dentists Law in 1948 and with the amendment of the Pharmaceutical Affairs Law in 1954, the reporting forms on physicians, dentists and pharmacists were separated from the Statistical Report and constituted the forms for a new survey, the Survey on Physicians, Dentists and Pharmacists in 1954.

(2) Purpose

To collect information on the number and geographical distribution of these health personnel.

(3) Coverage

All physicians, dentists, and pharmacists registered in Japan.

(4) Date

As of 31 December (since 1982 every two years).

(5) Contents of Reporting Forms

a. Name
b. Sex
c. Date of birth
d. Date of registration
e. Registration number
f. Main activity
g. Employment status

(6) Data Collection Procedure

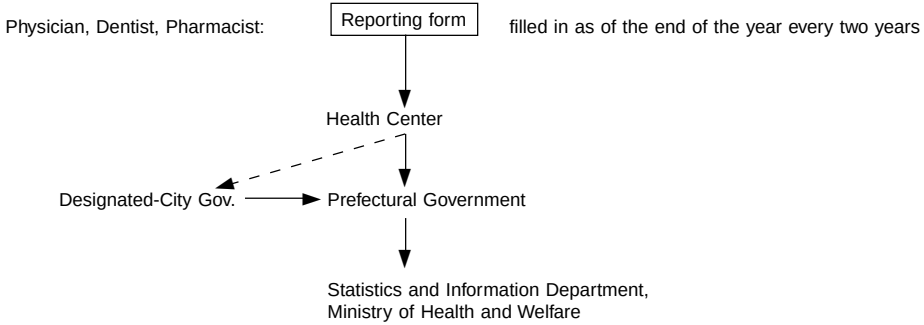
The report form filled in by each professional is submitted to the health center. At the health center, editing work is done and the report is sent to the Statistics and Information Department via the prefectural government.

(7) Tabulation and Publication

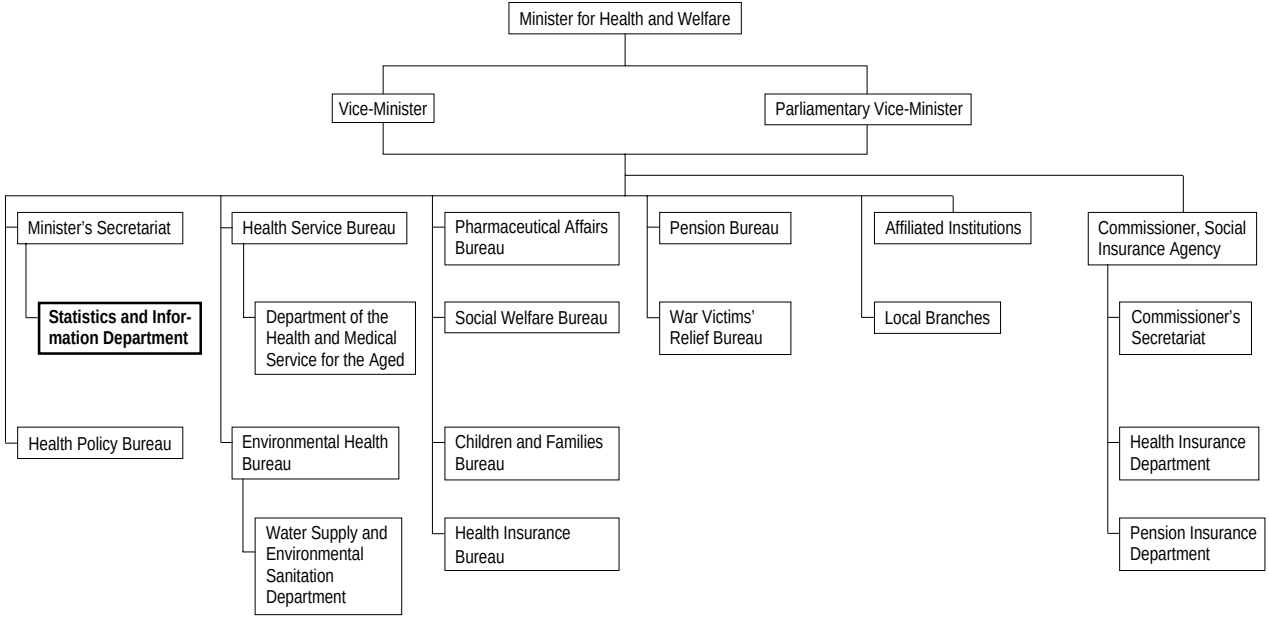
The Statistics and Information Department takes charge of the tabulation and releases the results through publications.

(Statistics and Information Department, Ministry of Health and Welfare)

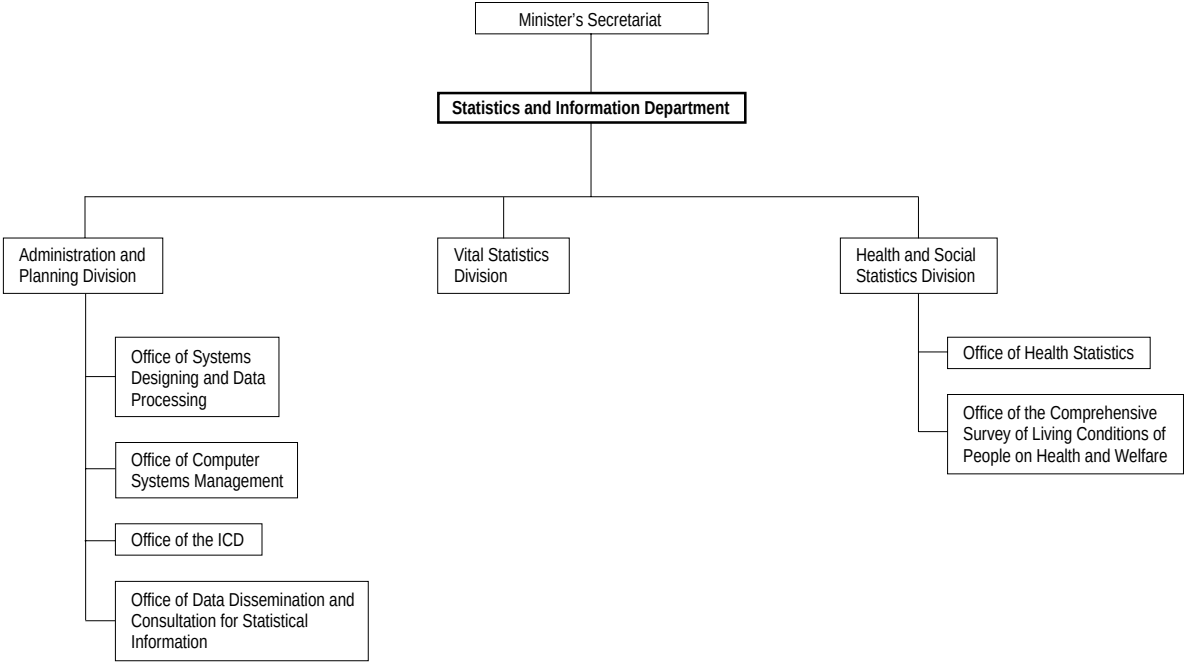
Survey on Physicians, Dentists, and Pharmacists



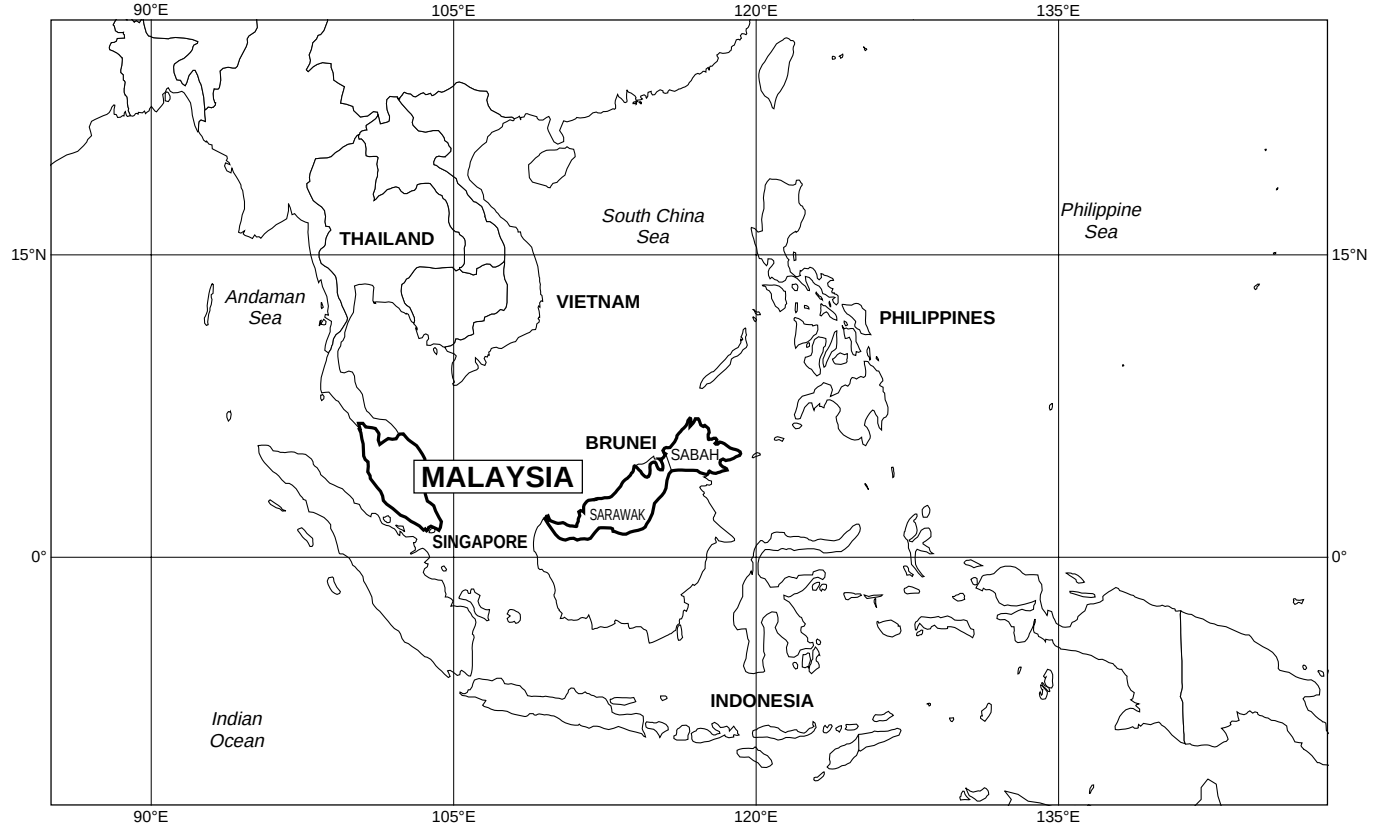
Annex I. Organization Chart of the Ministry of Health and Welfare, Japan (As of December 2000)



Annex II. Organization Chart of the Statistics and Information Department, Ministry of Health and Welfare (As of December 2000)



Malaysia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Andaman Sea
VIETNAM
PHILIPPINES
BRUNEI
SABAH
MALAYSIA
SARAWAK
SINGAPORE
INDONESIA
Indian Ocean

Malaysia

1. Population Statistics

(1) Background Information

The main sources of information on population statistics of Malaysia are censuses.

In 1991 Malaysia conducted its third census of population since its formation in 1963, the first and second having been held in 1970 and 1980. Postwar population censuses were held in 1947 and 1957 in Peninsular Malaysia and in 1960 in Sabah (North Borneo as it was then known) and Sarawak.

Intercensal estimates based mainly on natural increases in population are undertaken by the Department of Statistics under the Prime Minister's Department.

(2) Purpose

The main purpose of conducting these censuses is to obtain updated information on the population in the country, with each subsequent census covering an increasing number of items of socio-economic information in addition to the basic enumeration. The census information is used in sectoral planning by the Government as well as by the private sector and by researchers.

(3) Coverage

Nationwide.

(4) Contents

The 1991 census report contains a detailed analysis of the key census topics such as population changes and its structure, marriage and fertility, migration, labour force, education, household and other socio-economic characteristics.

(5) Data Collection Procedure

In the 1991 population census, the particulars of all persons in Malaysia were recorded at their place of residence on the designated census day by field enumerators sent to the different census districts. Data collection and computerized processing are done wholly by the Department of Statistics.

(6) Tabulation and Publications

The Department of Statistics is responsible for the tabulation and release of census results and for the annual publication on current population estimates.

Census information is published in the *Census Report* and the *Year Book of Statistics*.

2. Vital Statistics

(1) Background Information

The main sources of information on vital statistics are vital registration of births and deaths.

Since 1963 the Department of Statistics, with the concurrence of the Registrar-General of Births and Deaths, has been coding and publishing statistical data on vital events based on information contained in Birth, Death and Stillbirth Certificates.

The Registry of Births and Deaths responsible for the vital statistics information is under the Ministry of Home Affairs.

(2) Purpose

The main purpose of the vital statistics, apart from its legal value, is to inform on changes in the current population in respect of births, deaths and causes of death, and fertility trends in general. It is thus useful for constructing the intercensal population estimates and population projections. It is particularly useful in health planning as the data collected are on a national basis.

(3) Coverage

Nationwide

(4) Contents

The vital registration statistics cover births, deaths and causes of death.

(5) Data Collection Procedure

Vital statistics on births and deaths are collected at designated registration centres throughout the country. However, processing by computers is still done by the Department of Statistics.

(6) Tabulation and Publications

Information pertaining to current demographic changes is published in the annual *Vital Statistics* and the *Year Book of Statistics*.

3. Health Statistics

(1) Background Information

A major portion of the health service information under the Ministry of Health is collected by the Information and Documentation System Unit (IDSU) through the Health Management Information System (HMIS). For the information whose collection is managed by the respective divisions in the Ministry (e.g. Finance, Manpower, Pharmacy, Research, etc.), the final output will need to be channelled through the IDSU when it is meant for consumption of the general public.

The types of health information can be classified under three general groupings, viz.

- Health status
- Health resources
- Health activities.

(2) Health Status

Information on health status is comprised of two types:

(i) Vital statistics as published by the Department of Statistics; and

(ii) Morbidity and mortality statistics from government medical and health facilities as collected by the Ministry itself.

a. Purpose

These statistics depict the current health status of the general population and also its trend over the years.

b. Coverage

The vital statistics cover the total population while the mortality information covers all reported deaths. Owing to the nature of the occurrence of deaths, about two-thirds are non-medically certified. Generally, the causes of death (and morbidity) reported at government hospitals are fairly reliable.

Statistics on births, deaths and causes of death are published in Vital Statistics by the Department of Statistics while statistics on morbidity and mortality in government hospitals are available up till the third terminal digit of the ICD (9th Revision).

c. Data Collection Procedure

Vital statistics are collected by the Registry of Births and Deaths through its network of registration centres all over the country by gazetted personnel. The data are processed and published by

the Department of Statistics.

Morbidity and mortality statistics in government health facilities are collected monthly by the IDSU of the Ministry.

d. Tabulation and Publication

Annual data are published in the *HMIS Report*, the *Indicators for Monitoring and Evaluation of the Strategy for Health for All*, and the *Annual Report of the Ministry of Health*.

(3) Health Resources

These cover health manpower, financing, inventory and infrastructure.

a. Purpose

The main purpose of this information is to ensure that the needed resources are adequate at all times for supporting the regular health services.

b. Coverage and Contents

- All registered medical professionals, paramedics and auxiliaries.
- Financing of all activities based on priority.
- All existing inventory in the Ministry of Health.
- Status of development of physical projects.

c. Data Collection Procedure

The information on health manpower is obtained through the various registration boards for the professionals and sub-professionals. These registers cover both the practitioners in the public and the private sectors and are updated annually.

Data on the employment status of specific categories of personnel in the Ministry of Health (including non-medical professionals, sub-professionals, and also contract foreign medical personnel) are also available from administrative records.

Health financing is monitored by the Finance Division of the Ministry of Health in the annual budgeting examinations. The Ministry has adopted the Modified Budgeting System introduced in 1990.

In the absence of a central inventory system and national guidelines, the existing lists of inventories or assets owned (plant, equipment and building, land, vehicles) are kept by the following divisions of the Ministry: Contract and Supply Division, Hospital Division, Health Division, Dental Division, Engineering Division, Planning and Development Division, the IDSU and the Computer Unit. However, plans for a centralized inventory system are under way.

The progress of physical projects is monitored by

the Planning and Development Division. However, for projects that have gone off the ground, the maintenance is monitored by various divisions concerned with specific aspects of the fixed asset, for example, Engineering Division, Hospital Division, Health Division, and Finance Division.

d. Tabulation and Publication

The information on health resources is documented in the respective annual reports of the various divisions of the Ministry, and also in the *Annual Report of the Ministry of Health* in a somewhat summarized form. The State's annual report and the Hospital's annual report also contain such information but in greater detail.

(4) Health Activities

In the formulation of the Malaysia Plan (2001-2005), the health information system continues to receive emphasis from health management as a decision support system. Among the various programmes, some of the information systems were reviewed and further strengthened to accommodate the changing information needs of the health programmes.

The emphasis in health care delivery is gradually changing from adequacy of care to quality of care, and this has prompted the need to upgrade the analytical skills of health personnel at all levels in using information as a management tool.

a. Purpose

The main objective of the information system is to monitor prevailing health programme performance towards specific goals or targets. On a long-term basis, the information is used for policy formulation, resources planning and projection of future demands for health and medical services.

b. Coverage

Information is collected for all activities carried out by the twenty-three programmes in different types of health and medical establishments run by the Ministry of Health.

c. Contents

The information collected measures, directly or indirectly, performance in terms of achievement of objectives in the specific programmes. These include:

- family health activities;
- morbidity and mortality data and utilization of facilities in government medical establishments;
- incidence of notifiable communicable diseases

and their prevention and control;
- environmental sanitation;
- food quality control;
- dental health;
- pharmaceuticals production and control;
- leprosy, tuberculosis and vector-borne disease control;
- health education activities;
- manpower planning;
- health systems research and biomedical research.

d. Data Collection Procedures

Information for a majority of the health care programmes is collected through the HMIS. However, many of the service support programmes like pharmacy, manpower development, general health planning, and health and medical research collect information through their own effort and initiative. There are plans to streamline these independent systems and integrate them into the general HMIS.

All information generated at service delivery points, namely at hospitals and public health facilities, is compiled into a monthly report and sent to the district level for further compilation. The process is repeated from the district to the state and the province, and subsequently stopped at the Information and Documentation System Unit at the national level for final processing.

e. Tabulation and Publication

Much of the routine data collection is on a monthly basis. However, published data for official use in general planning at national and at state levels are usually annual and in an aggregated or summarized form. Such information is to be found in the annual reports for specific programmes, the HMIS annual reports, the *Ministry of Health Annual Report* and the *Indicators for Monitoring and Evaluation of the Strategy for Health for All.*

The state and hospital reports are also available but these contain detailed information useful for planning at local level.

4. Computerization of Health Information

(1) Background Information

Computerization as a supportive service to health management was conceptualized as early as in 1976. However, due mainly to technical manpower constraints it was deferred until 1979 when it gained momentum starting off with the computerization of accounting activities within the Ministry.

In the absence of a central coordinating unit, computerization developed as separate functional entities within the Ministry of Health. In an effort to coordinate and streamline such sporadic proliferation, the Technological Information Centre was established within the Ministry in January 1991.

(2) Current Development

At present there are six key projects under the computerization plan in the Ministry covering the following activities:

(i) Store Management and Inventory Control System;
(ii) Biomedical Research;
(iii) Staff Management Information System;
(iv) Financial Information System;
(v) Health Management Information System;
(vi) National Pharmaceutical Laboratory Control System.

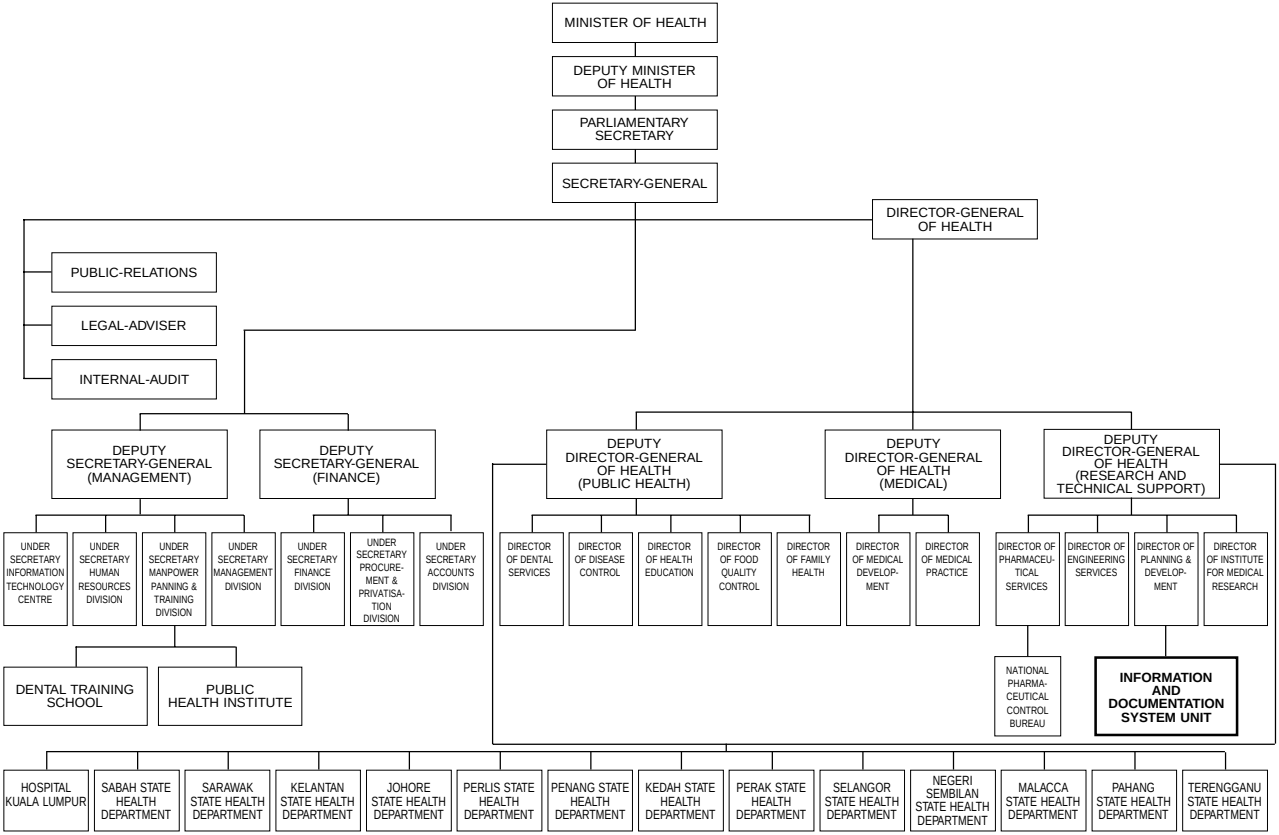
All the above projects either have been implemented fully (and continually upgraded) or are in various stages of implementation.

The hardware is in the form of mainframes, supermicros/minicomputers and microcomputers.

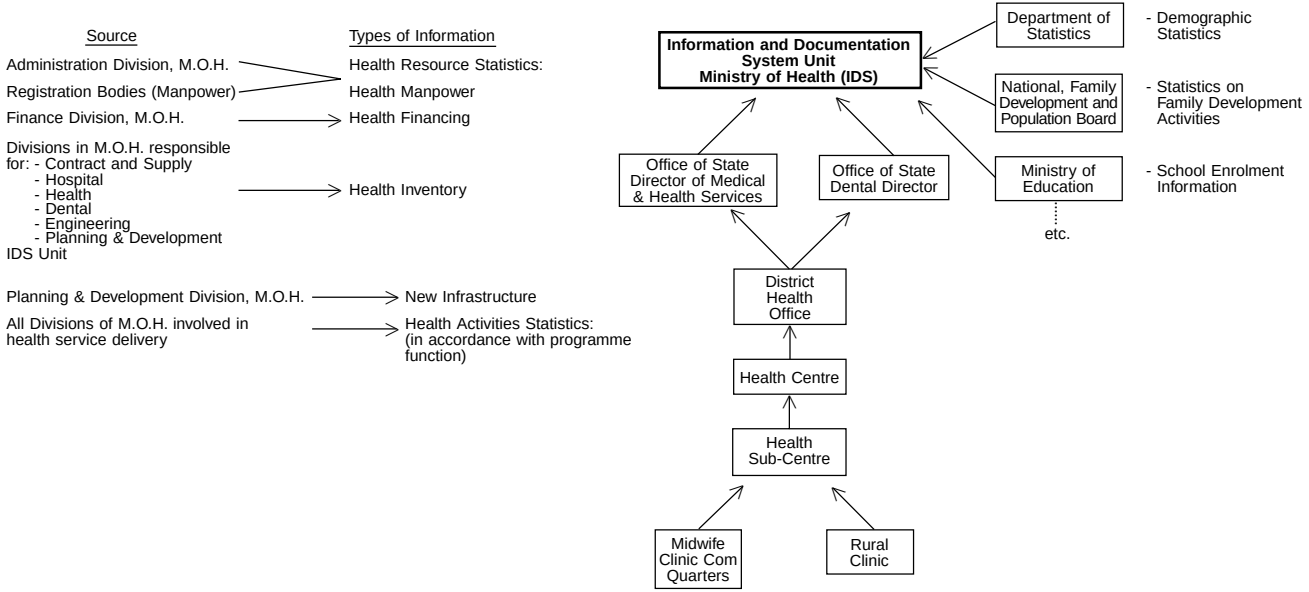
In response to the growing number of users of computerized information within the Ministry itself coupled with the availability of more sophisticated micros at lower costs, the Ministry is encouraging the use of a microcomputer system at local levels. Information sharing is one of the ultimate aims in computerization but duplication need to be avoided.

(Information and Documentation System Unit, Ministry of Health Malaysia)

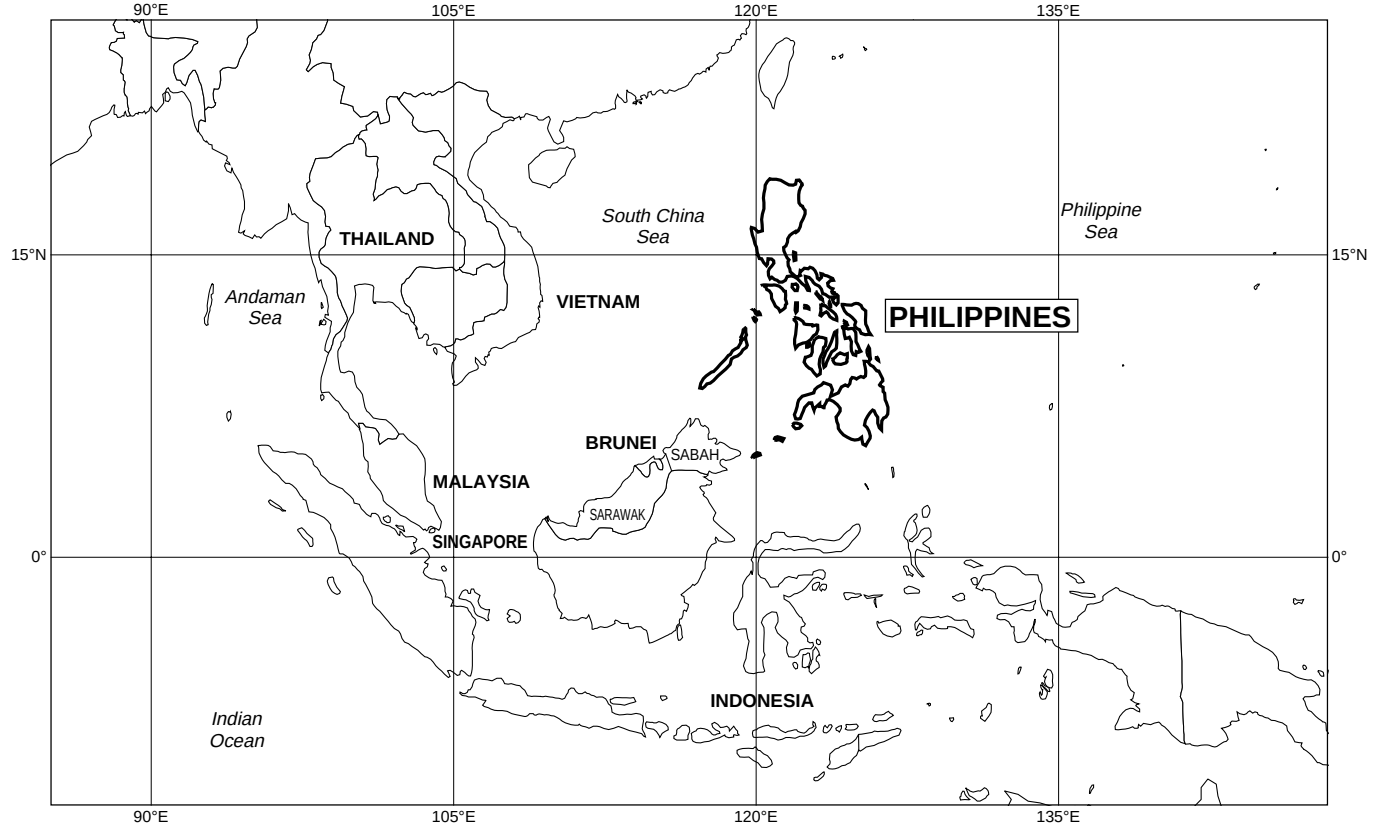
Organization Chart of the Ministry of Health, Malaysia



Flow of Health and Health-Related Information, Malaysia



The Philippines



The Philippines

1. Population Statistics

(1) History

The first complete count of the population of the archipelago was made in 1903. The census of 1903 was followed by others carried out in 1918, 1939, 1948, 1960, 1970, 1975, 1980, 1990 and 1995. The 1995 census was the tenth national population census and this was carried out in September, 1995 by the National Statistics Office (NSO).

(2) Purpose

While the 1995 census was mainly intended to make an inventory of the total population and its characteristics, the census will also form the basis for the apportionment of Internal Revenue Allocations for local government units (as defined by the Philippines' 1991 Local Government Code, implemented in 1992) and for the creation of new legislative areas (regions, provinces, municipalities and barangays). Requests for conversions of local government units to another level (municipality to city) will also be based on this census.

In general the population census is the source of information on the size and distribution of the population as well as information about the demographic, social, economic and cultural characteristics of the Filipinos.

The NSO is mandated by law to conduct a national census every ten years, but a multi-agency board (NSCB-National Statistical Coordination Board) decreed the conduct of the mid-decade population census to serve the statistical requirements of the national government.

(3) Consolidation, Analysis and Presentation

The NSO published a report in March 1997 on the Population Census of 1995. The report highlights the population's size and trends since the first census in 1903, its distribution among the regions of the country, and disaggregates the population by age groups and sex, the numbers married and single by sex, the educa-

tional attainment of the population (highest level completed), the mother tongue spoken, types of disability, numbers and sizes of households and the characteristics of the household head, the number of overseas workers, trade skills of the population and class of worker.

(4) Projections in the years between censuses

The NSO and the NSCB have created technical committees on population, housing and population projections to cover annual projections on the population.

2. Vital Statistics

I. Natality Statistics

(1) History and Operation

As provided by the Civil Registry Law, all live-births are registered within thirty days from the date of birth at the local Civil Registrar of the place of birth through a certificate of live-birth. The NSO collects and analyzes all information on these certificates and reports it regularly. The head of the NSO is the country's Civil Registrar-General.

(2) Field Health Natality Reports

Natality statistics are collected by health facilities nationwide from the civil registrars using MFHSIS (Modified Field Health Services Information System) Annual Form 1 - Vital Statistics Report. The annual forms collected in January are reported by local governments to the regional offices of the Department of Health (DOH), who in turn submit consolidated natality statistics to the National Epidemiology Center in Manila. These reports are released through the *Philippine Health Statistics*, published annually by the DOH - National Epidemiology Center.

II. Mortality Statistics

(1) History and Operation

Deaths are registered also under the Civil Registry Law through local Civil Registrars in the form of death certificates within thirty days from the time of death through the registrar of the place of death. When the death occurred in transit or where the place of death cannot be ascertained, registration is made in the registrar of the place of burial. Reports from the registrars are submitted to the NSO, which releases data on causes of death by the ICD-9 classification to the DOH's Health Intelligence Service.

(2) Field Health Mortality Reports

Mortality statistics are collected by field health units from the civil registrars and reported to the DOH on January, using MFHSIS Annual Form 1- Vital Statistics Report and MFHSIS Annual Form 3 - Mortality Report. Form No. 1 provides a summary of mortalities by group: maternal deaths, infant deaths, infant deaths due to neonatal tetanus, and late fetal deaths. The Mortality Report on the other hand reflects the probable cause of death as noted from the death certificate; this is reported by age and gender.

Local governments nationwide collate the reports for submission to the the Centers for Health Development offices for eventual submission to the National Epidemiology Center, Department of Health in Manila which includes the information in the *Philippine Health Statistics*.

3. Morbidity Statistics

(1) History and Operation

Diseases of public health importance (notifiable diseases) have been reported to the DOH based on the law on Reporting of Communicable Diseases since 1929. The list of notifiable diseases is updated regularly by the DOH through its National Epidemiology Center.

Reports on those notifiable diseases seen by the rural health unit (RHU) staff, reports from private practitioners and reports from midwives based at barangay health stations (where cases of pneumonia, measles, diarrhea, chicken pox and hypertension are

usually first seen) are gathered by field health personnel at the municipal and city levels where the weekly trend of diseases is analyzed. These Municipal and City Health Offices submit monthly (4-week) consolidation reports to the provincial health office for further consolidation, analysis and possible action when there are outbreaks.

At the end of the year, the field health offices consolidate their monthly reports into the MFHSIS Annual Form No. 2 - Notifiable Diseases Report which is submitted every January to the DOH. The report lists the notifiable diseases occurring in their area by age and gender.

The reports consolidated by the DOH are used in compiling the ten leading causes of morbidity and annual morbidity rates. The results are released through the regular publications of the National Epidemiology Center which include:

a) MFHSIS Annual Reports

b) *Philippine Health Statistics*

4. Health Resources Statistics

These include data on health manpower, health facilities such as hospitals and health centers, finance, budget, supplies and equipment.

The National Epidemiology Center has various sources for these data. The following are the sources for such information.

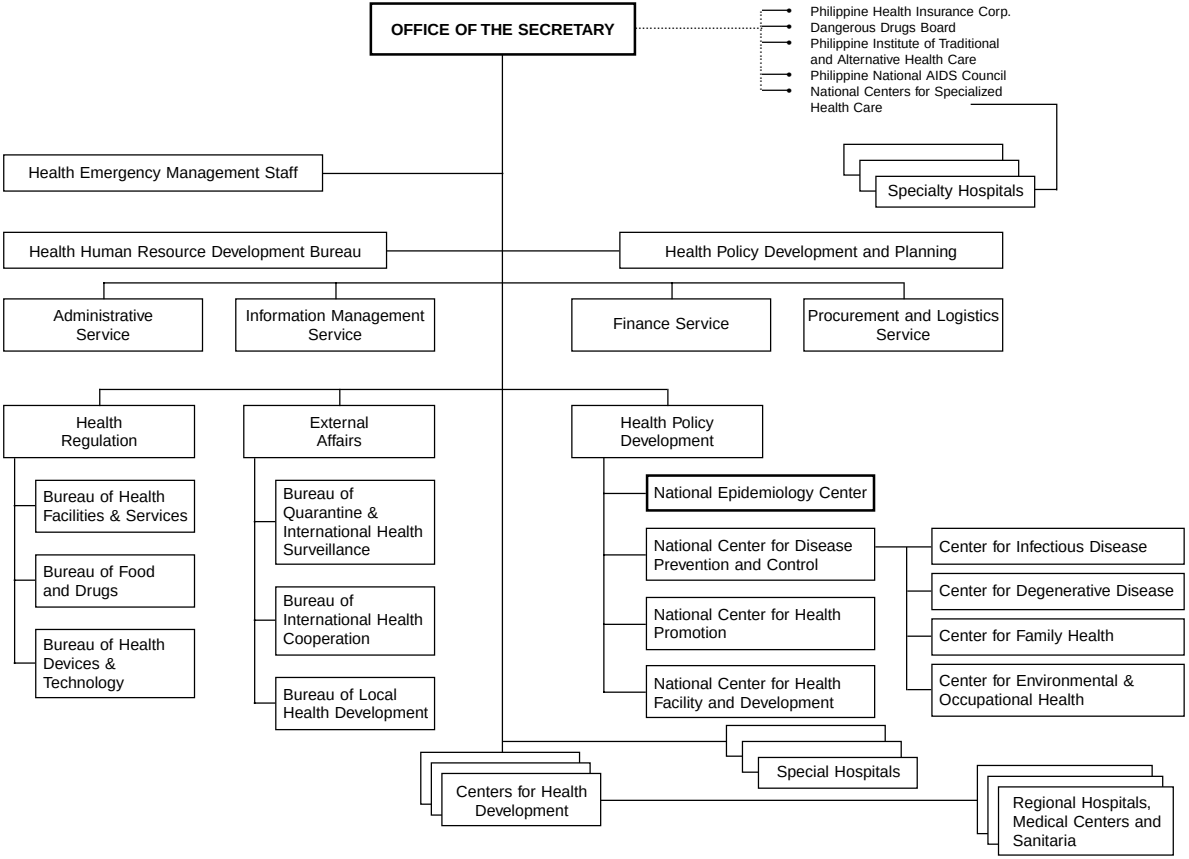
1. The Bureau of Health Facilities and Services as well as the National Center for Health Facility and Development provide data on the total number of licensed government and private hospitals as well as the total bed capacity of each hospital.
2. The MFHSIS Annual Demographic Report - Information on the total number of Rural/ Main Health Centers and Barangay Health Stations (PHCs) throughout the country are reported through the MFHSIS A-1.
3. The Professional Regulation Commission (PRC) - This agency is the source of all licensed/registered manpower in a given year

who passed different Board/Bar examinations given by the government. The data are on an annual basis with the cumulative total for each category.

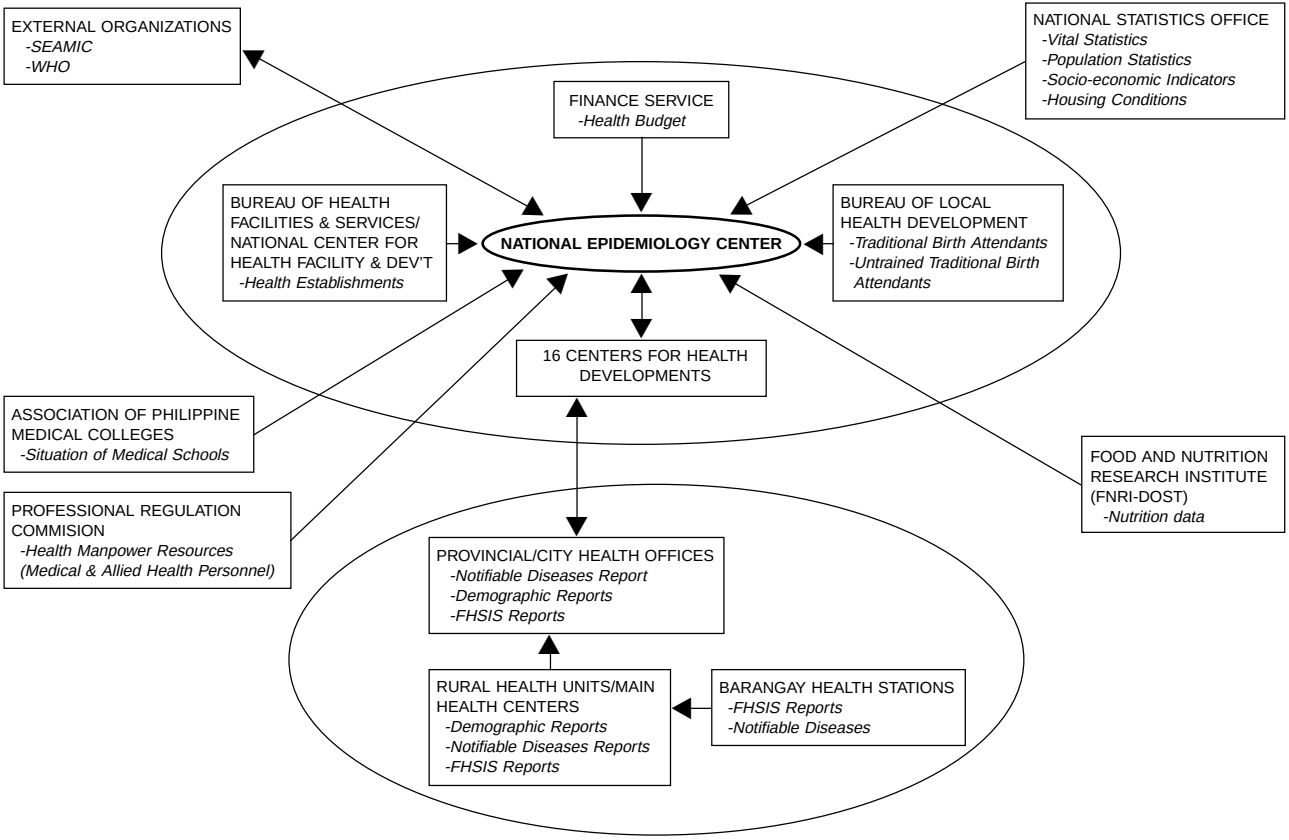
4. The Administrative Division of the DOH - The Central Office and the different Centers for Health Development provide the total number of health manpower who are retained by the Department of Health. For those devolved to the local government units (LGUs), the total number of the existing health manpower is submitted through the MFHSIS on an annual basis by all Centers for Health Development.
5. The Bureau of Local Health Development provides data on the total number of voluntary health workers nationwide.
6. The Association of Philippines Medical Schools releases data on total number of enrolment and graduates per year.
7. The Finance Service gives information on the DOH budget on different programs and activities, procurements, supplies and equipment.

(National Epidemiology Center, Department of Health)

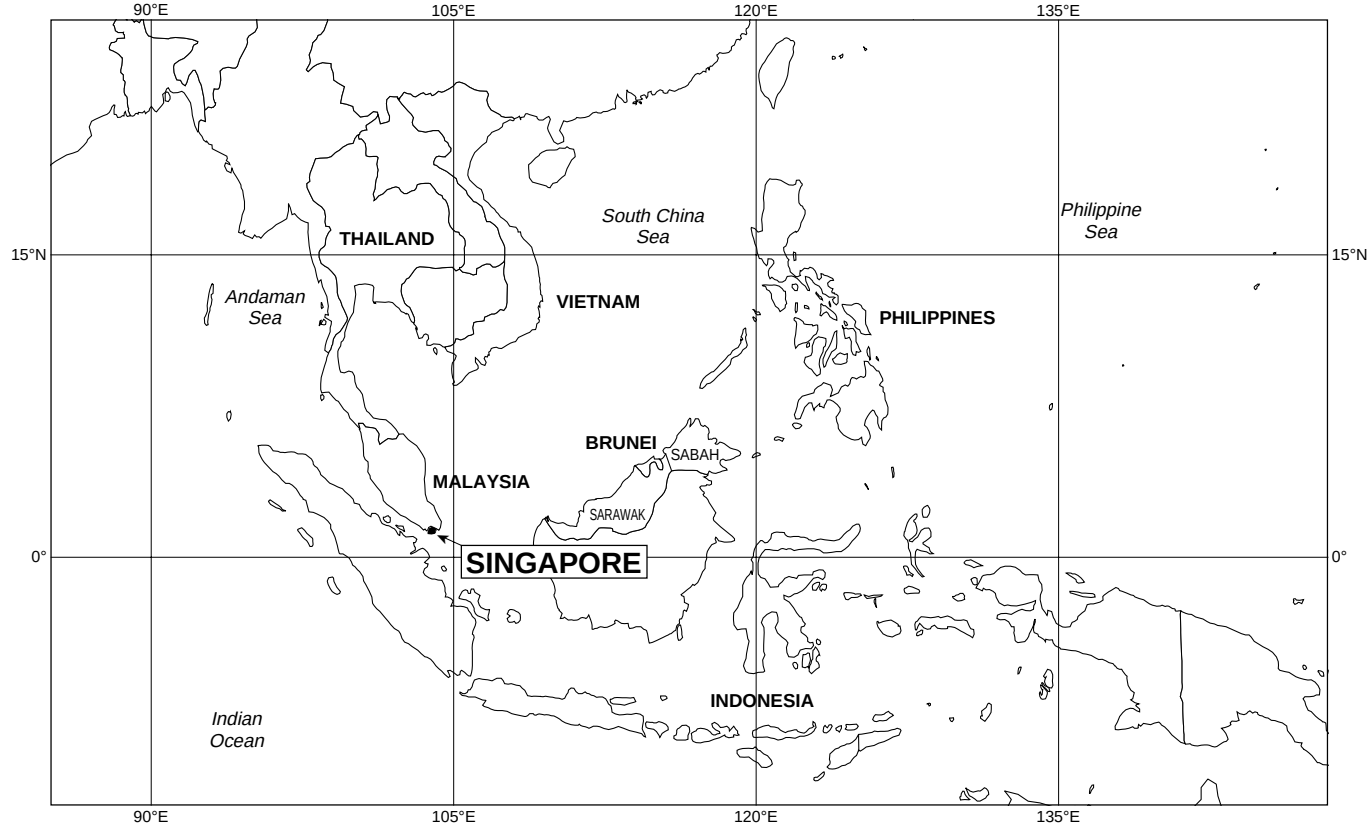
Organization Chart of the Department of Health, Philippines



FLOW OF HEALTH INFORMATION



Singapore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Andaman Sea
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BRUNEI
SABAH
MALAYSIA
SARAWAK
SINGAPORE
INDONESIA
Indian Ocean

Singapore

1. Population Statistics

(1) Background Information

The main sources of information on population statistics of Singapore are censuses.

Singapore conducted its first population census in 1871 and subsequent censuses at ten-year intervals till the outbreak of World War II. In the pre-war censuses, Singapore was included as part of the Straits Settlements and later, of Malaya. Separate censuses for Singapore were carried out in 1947, 1959, 1970, 1980 and 1990. Mid-year population estimates are made for the intercensal years.

(2) Purpose

The main purpose of conducting censuses is to obtain updated information on the population situation in the country. Such data are essential for statistical analysis of changes in the population. Census information is particularly useful for planning and for evaluation of programmes such as housing, education, health, transport and other social amenities, as well as for research and analysis by the Government, private corporations and individuals.

(3) Coverage

The whole population of Singapore.

(4) Contents

In the 1990 Census of Population, the detailed information collected on the population could be classified under the following broad categories:

a. Demographic characteristics;
b. Literacy and educational qualifications;
c. Economic characteristics and employment;
d. Geographic distribution;
e. Houses and households;
f. Income and mode of transport;
g. Language and dialects spoken at home;
h. Religion and fertility.

(5) Data Collection Procedure

In the 1990 Population Census, a new approach was adopted. Particulars of individuals and houses which were readily available in the databases and administrative records of public authorities were preprinted on census schedules. This procedure saved the effort of obtaining the information from the individuals; the field interviewers had only to verify/confirm as the case might be. Any changes, e.g. births or deaths or occupancy of the houses, were taken into account for the extraction of the particulars from the administrative records. Additional information which was not available in the database was obtained from the households and updated in the census schedules.

Data processing was undertaken from June 1990 to March 1991, by the Department of Computer Information Services of the Ministry of Finance, using the latest technology. This involved automatic coding for occupation and household structure, and computer-assisted coding of economic activity. The computer was also designed to carry out comprehensive checks for record errors and inconsistencies.

(6) Tabulation and Publication

The Department of Statistics is responsible for the tabulation and release of census results and also for the periodic publication of population and vital statistics. The data are published in the *Monthly Demographic Bulletin, Monthly Digest of Statistics, Statistical Highlights Singapore* and the *Yearbook of Statistics, Singapore*.

2. Vital Statistics

(1) Background Information

The main source of vital statistics is compulsory registration of births and deaths.

Under the Registration of Births and Deaths Act, all occurrences of births and deaths within Singapore are required to be reported within stipulated periods. The registration system has been operative for many years and records of vital statistics are virtually complete.

(2) Purpose

In the case of vital registration, besides the legal requirements, the aim is to collect detailed information on births and deaths including the underlying causes of

mortality.

Such data are essential for statistical analysis of changes in the population and studies of mortality trends.

(3) Coverage

The whole population of Singapore.

(4) Contents

Statistics and health indicators derived from the vital registration system include:

(i) Births

a. Number and rate;
b. Number and percentage distribution by birth attendant;
c. Number and rate by age of mother and ethnicity;
d. Number by occupation of father and birth order;
e. Number by birth weight and gestation period;
f. Crude birth rate;
g. Age-specific fertility rate;
h. Total fertility rate;
i. General fertility rate;
j. Gross reproduction rate.

(ii) Deaths

a. All deaths, number and rate by age, sex, ethnic group, medical attendance and cause;
b. Infant deaths, number and rate by sex, ethnic group and cause;
c. Neonatal deaths, number and rate by sex, ethnic group and cause;
d. Perinatal deaths, number and rate;
e. Stillbirths, number and rate;
f. Maternal deaths, number and rate;
g. Crude death rate;
h. Causes of death by age and sex (coding based on ICD-9);
i. Standardized mortality ratio.

(5) Data Collection Procedure

Vital statistics on births and deaths are processed from the Special Preliminary Report Forms completed by the various vital registration centres. Processing of the statistical information is undertaken by the Registry of Births and Deaths which is under the purview of the Ministry of Home Affairs.

(6) Tabulation and Publication

Detailed information on births and deaths are published annually in the *Annual Report on the Registration of Births and Deaths*.

3. Statistics on Notifiable Diseases

(1) Background Information

Statistics from notification of specific infectious diseases, e.g. cholera, enteric fevers, dengue hemorrhagic fever, malaria, viral encephalitis, viral hepatitis, tuberculosis, venereal diseases and leprosy, are collected routinely.

In 1973, a Joint Co-ordination Committee on Epidemic Diseases was set up. The main objective of the Committee is to co-ordinate the work and responsibilities of the Ministry of Health and the Ministry of the Environment on diseases of public health importance, specifically, the notifiable diseases and other diseases which may be considered of sufficient importance to require co-ordinating action and liaison between the two Ministries.

Statistics on diseases of key interest are monitored and reviewed by this Committee.

(2) Purpose

To monitor and control the epidemiological situation of the country with the primary aim of early detection of outbreaks of infectious diseases so that control measures can be instituted promptly.

(3) Coverage

All persons reported to have contracted any of the notifiable diseases.

(4) Contents

All reported cases of notifiable infectious diseases by type, including information on the profile of infected persons.

(5) Data Collection Procedure

Except for tuberculosis, venereal diseases and leprosy for which notifications are made to special registries in the Ministry of Health, notifications of the other infectious diseases are received by the Quarantine and Epidemiology Department of the Ministry of the Environment. Under the existing regulations, notifications of the specific notifiable diseases are compulsory by all providers of health and medical service in the country.

(6) Tabulation and Publication

Based on information from notifications of specific notifiable diseases, the Committee on Epidemic Diseases publishes the *Weekly Infectious Diseases Bulletin* and the *Monthly Epidemiological News Bulletin*.

4. Morbidity Statistics

(1) Background Information

Routine collection of morbidity statistics on patients admitted into government hospitals started in 1969 as part of an overall objective of augmenting the existing data on specific notifiable diseases and other data on specific diseases from special disease registers such as those of tuberculosis, leprosy, venereal diseases and cancer.

In 1974, the scope of morbidity data was extended to the outpatient level, and since then the records of cases seen at all government primary health care clinics have been compiled according to disease conditions.

In 1978, a new statistical series was introduced by the Ministry of Health requiring private hospitals to provide, on prescribed forms, information pertaining to each patient admitted into their hospitals.

In July 1990, the Central Claims Processing System (CCPS), an automated system, was introduced by the Ministry of Health to facilitate all public and private hospitals to submit their Universal Claims Forms (UCF) through the Singapore Network Systems. The UCF is a single electronic message that contains all information for the Medisave*, claims for MediShield** and Hospital Inpatient Discharge Summary (HIDS). Through this system, Medisave and MediShield claims are submitted to the Central Provident Fund Board while the information from the HIDS is made available to the Ministry of Health for the processing of patient profile and disease data.

* The Medisave Scheme is a compulsory savings scheme introduced in April 1984 to help Singaporeans to set aside sufficient savings for their hospitalization expenses, especially during old age. Under the Scheme, every employee contributes 6–8% (depending on the age group) of the monthly salary to his/her Medisave Account. The savings can be withdrawn to pay for the hospital bills for the participant or his/her dependant(s).

** The MediShield was introduced in July 1990 to supplement the Medisave. It is a low-cost catastrophic illness insurance scheme designed to help members meet the medical expenses from major and prolonged illnesses which the Medisave balances would not be sufficient to cover. The participation in the MediShield Scheme is voluntary.

(2) Purpose

The main purpose of collecting the data is to study the morbidity patterns of patients and to analyse the disease profile of patients. This helps in the plan-

ning and proper design of government and community health programmes.

(3) Coverage

All patients admitted into government and private hospitals and patients attending government primary health care clinics.

(4) Contents

Data on hospitalized patients include:

a. Socio-economic profile, e.g. age, sex, ethnicity, nationality, occupation;
b. Patient classification by specialty;
c. Source of referral;
d. Diagnoses (coding based on ICD-9);
e. Surgical operation;
f. Underlying cause of death (in the case of death of patient).

For outpatients, the principal morbid condition for which the patient is treated is recorded.

(5) Data Collection Procedure

With the introduction of the CCPS, all public and private hospitals submit electronically their Medisave and MediShield claims to the Central Provident Fund Board and their Hospital Inpatient Discharge Summaries (HIDS) to the Ministry of Health through their UCF. Morbidity data on outpatients are compiled from computerized records of patients attending government primary health care clinics.

(6) Tabulation and Publication

The Health Information Management Branch of the Ministry of Health is responsible for co-ordinating and ensuring that individual hospitals are up-to-date in their submissions of their returns before the statistical tabulations are generated.

The statistics are processed annually.

5. Statistics on Occupational Diseases

(1) Background Information

The Occupational Health Department in the Ministry of Manpower is responsible for controlling health hazards in workplaces and preventing occupational diseases. The department's inspectors, industrial hygiene staff, nurses and doctors check workplaces,

investigate complaints and notifications of occupational diseases, and enforce the health provisions of the Factories Act. Advice is given to companies, unions and other organizations with problems relating to occupational health matters. Surveys are also conducted to delineate specific occupational health problems so that appropriate preventive programmes, including legislation, may be instituted.

(2) Purpose

Statistics on occupational diseases are collected for the following reasons:

a) To assess the size of various occupational health problems in Singapore;
b) To identify areas of concern;
c) To study occupational disease trends and patterns;
d) To formulate action plans so as to effectively control the hazards and prevent occupational diseases.

(3) Data Collection and Publication

Workers suspected to have occupational disease are referred to the Department through:

a) Notifications under the Factories Act and the Workmen's Compensation Act;
b) Complaints and consultation received from workers, unions and employers;
c) Returns on medical surveillance results of workers exposed to specific hazards, including hazards prescribed under the Factories (Medical Examinations) Regulations 1985.

All these cases are investigated by the Department in order to establish the diagnosis and ensure that control measures are taken to prevent further cases.

Data collected following the above investigations of occupational diseases cases are analysed. This is the only source of data on occupational diseases in Singapore.

These data are published annually in the Ministry of Manpower's *Annual Report*, the *Singapore Yearbook*, the *Yearbook of Manpower Statistics*, as well as *Singapore Facts and Pictures*. On an ad hoc basis, the data may be published in the Manpower Ministry's newsletters, in scientific journals and in reports to international bodies, such as the ILO and WHO.

6. Health Service Utilization Statistics

(1) Background Information

Prior to 1976, the responsibility for data collection and the determination of the type of data to be collected rested with each government health institution depending on their specific administrative needs and requirements. However, with increasing awareness and recognition of the importance of developing an effective health management information system for both administrative and planning purposes, the overall system of data collection was revamped in 1976. This was undertaken by the then Research and Evaluation Section (now Health Information Management Branch) of the Ministry of Health. The statistical system has undergone a number of revisions since 1976 in tandem with the changing needs and requirements of health administrators and planners.

In 1978, the statistical system was extended to cover the activities of private hospitals. However, information on activities of private clinics is not monitored routinely. Some information on private clinics is available from ad hoc surveys conducted by the Department of Statistics.

(2) Purpose

One of the prime objectives of collecting the data is to monitor and make a short-term appraisal of the performance of the various service departments within the Ministry of Health and the utilization of private hospitals. The statistical information is also utilized in conjunction with other data for purposes of resource allocation, projection of future demand for health facilities and manpower as well as overall planning for health services in the country.

(3) Coverage

Statistics collected cover activities of all government hospitals, ancillary services and primary health care clinics. Coverage of activities of private medical establishments is currently confined to private hospitals.

(4) Contents

The current range and type of data collected are fairly wide and include, amongst other things, information on:

a. Use of inpatient facilities, e.g. hospital admissions, bed-days, bed occupancy, dura-

tion of stay and discharges by specialty;
b. Surgical operations and anaesthetic procedures;
c. Outpatient attendances at hospital specialist clinics, ambulatory, emergency and walk-in clinic departments, primary health care and dental clinics;
d. Radiological and laboratory investigations and extent of use of services of various other paraclinical and ancillary departments, e.g. physiotherapy, occupational therapy, medical social services, etc;
e. Selected health manpower;
f. Average hospital inpatient bill sizes;

(5) Data Collection Procedure

The statistical returns are submitted on a monthly basis by various service centres to Health Information Management Branch, Ministry of Health for processing.

(6) Tabulation and Publication

The data are collected and published quarterly and annually in the form of statistical bulletins and other special reports.

7. Statistics on Preventive Health Care Service

(1) Background Information

Immunization of pre-school children is the responsibility of the Family Health Service.

The School Health Service is responsible for the immunization of school children at regular intervals and the Ministry of Defence for national servicemen.

The Government Vaccination Centre provides immunization against cholera and yellow fever to any member of the public. Private medical practitioners also provide immunizations.

Since the early 1960's all childhood immunizations are notified to the Central Immunization Registry and statistics pertaining to immunizations administered have been collected and compiled.

(2) Purpose

To help determine immunization coverage in the country and to monitor immunization programme activities.

(3) Coverage

All pre-school and school children in Singapore.

(4) Contents

Data collected include:

a) Number of immunizations administered;
b) Number of children immunized by age;
c) Type of immunization;
d) Immunization coverage rate.

(5) Data Collection Procedure

Data are collected from the various Family Health Service Clinics and from vaccination records kept by the School Health Service and private practitioners as well as from the compulsory notifications of diphtheria immunization carried out in pre-school children received by the Central Immunization Registry.

(6) Tabulation and Publication

Statistics on the immunization programme are tabulated and published in the *Report of the Childhood Immunization Programme in Singapore* by the Quarantine and Epidemiology Department of the Ministry of the Environment. Information is also available in the *Family Health Service Annual Report* and the *School Health Service Annual Report.*

8. Statistics on Legalized Abortion and Sterilization

(1) Background Information

The Singapore Family Planning and Population Board was established in 1966 by an act of Parliament as a Statutory Board under the portfolio of the Minister for Health. When the National Programme began in 1966, the main objective was to provide good and easily accessible clinical services where all couples wishing to practice family planning could obtain professional advice and contraceptive supplies.

In 1972, all existing programmes of the Board were intensified and many new measures were initiated.

Both the Abortion Act (1969) and the Voluntary Sterilization Act (1969) legalizing abortion and sterilization were repealed at the end of 1974 and replaced by the Abortion Act 1974 and the Sterilization Act

1974 which further liberalized abortion and sterilization in the Republic.

The collection of statistics on sterilizations and legalized abortions started in 1970.

(2) Purpose

The purpose of collecting the data is to monitor abortions and sterilizations carried by approved clinics and hospitals and the profile of persons undergoing such procedures . This is to provide the necessary information for policy formulation and programme planning.

(3) Coverage

All persons who have undergone sterilization or abortion.

(4) Contents

The statistical data collected include:

a) Number of sterilizations performed and profile of persons who have undergone sterilization;

b) Number of legalized abortions performed and profile of persons who have had their pregnancies terminated.

(5) Data Collection Procedure

Sterilization and abortion forms from all hospitals and clinics/institutions are submitted to the Health Regulation Division, Ministry of Health for data processing.

(6) Tabulation and Publication

The Health Regulation Division of the Ministry of Health is responsible for statistical tabulation and compilation of the data. The information is published annually.

9. Health Manpower Statistics

(1) Background Information

Although statistics on all grades of health personnel are available from administrative records, particular emphasis is focused on certain key personnel, viz. doctors, dentists, pharmacists, nurses and midwives, who are also incidentally required to be registered under the relevant acts, namely, the Medical Registration Act, the Dentists Act, the Pharmacists Act, the Nurses and the Midwives Act.

Manpower registers for these groups of personnel are computerized and updated periodically for them to be kept "live".

(2) Purpose

The purpose of these registers is to provide up-to-date data on the stock of the key health personnel in the country both for administrative use and for manpower planning.

(3) Coverage

All registered doctors, dentists, pharmacists, nurses and midwives in Singapore.

(4) Contents

Personnel particulars maintained in the registers contain not only vital information such as sex, age, race, religion and citizenship, but also details on qualifications, year of qualification and the university/ institution which conferred the degree and specialist qualification, etc. Information on the type, duration and place of practice is also captured.

(5) Data Collection Procedure

The information is obtained from the registration forms completed by the doctors, dentists, pharmacists, nurses and midwives. The manpower registers are updated annually.

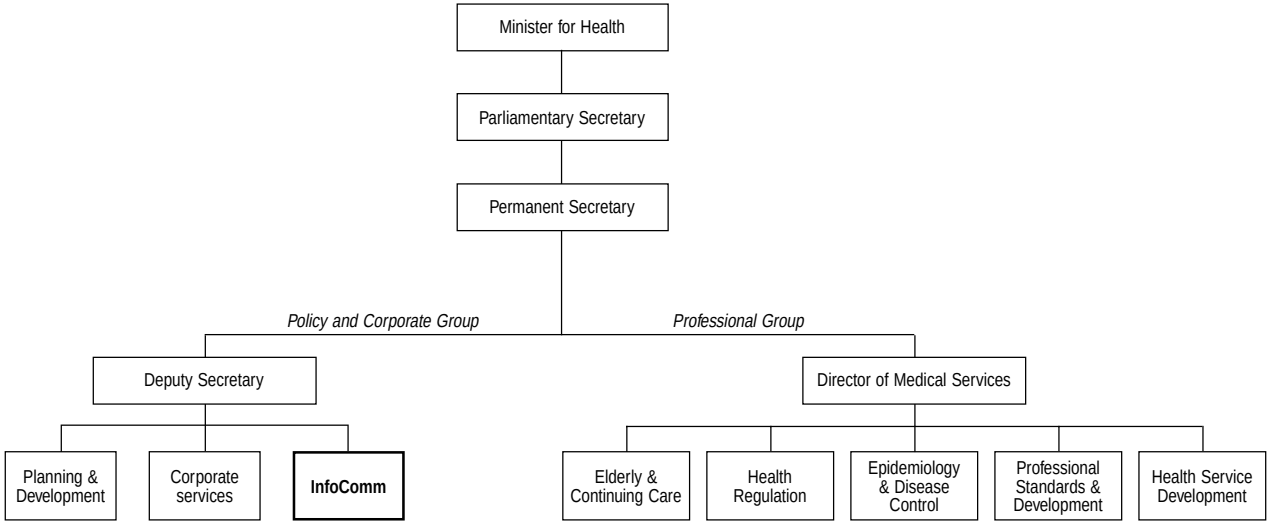
(6) Tabulation and Publication

Health Information Management Branch, Ministry of Health, is responsible for the tabulation and analysis of the statistical data. Reports on these key health personnel are published annually.

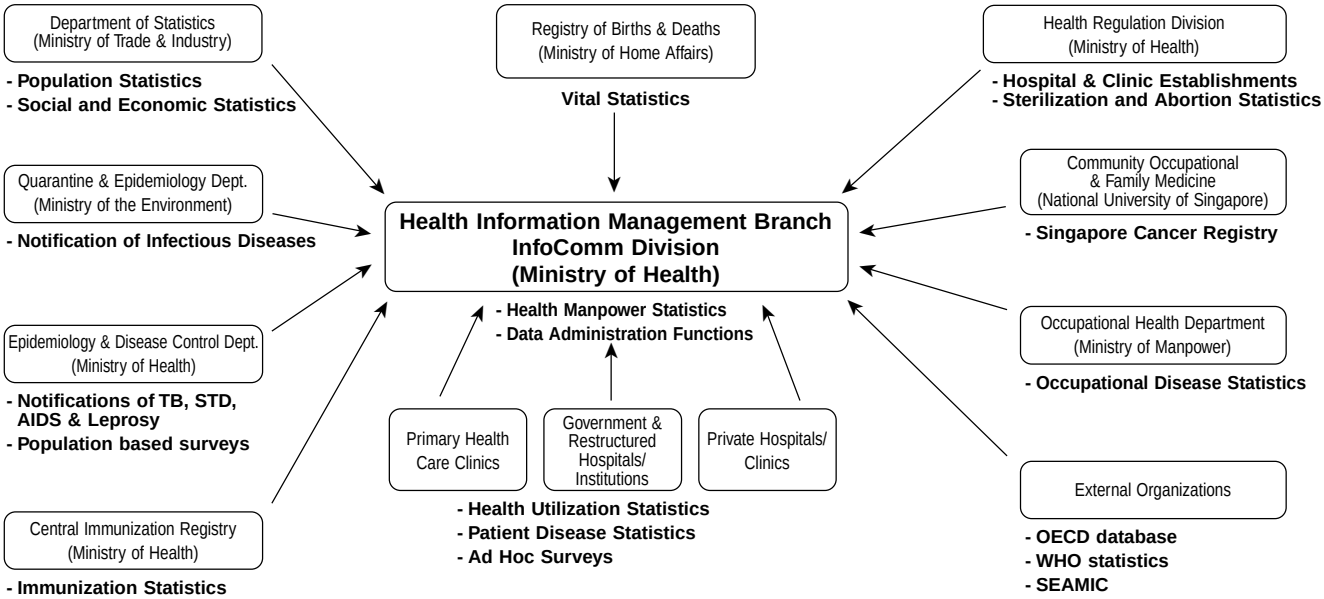
(Health Information Management Branch,
InfoComm Division, Ministry of Health)

Organization Chart of the Ministry of Health, Singapore

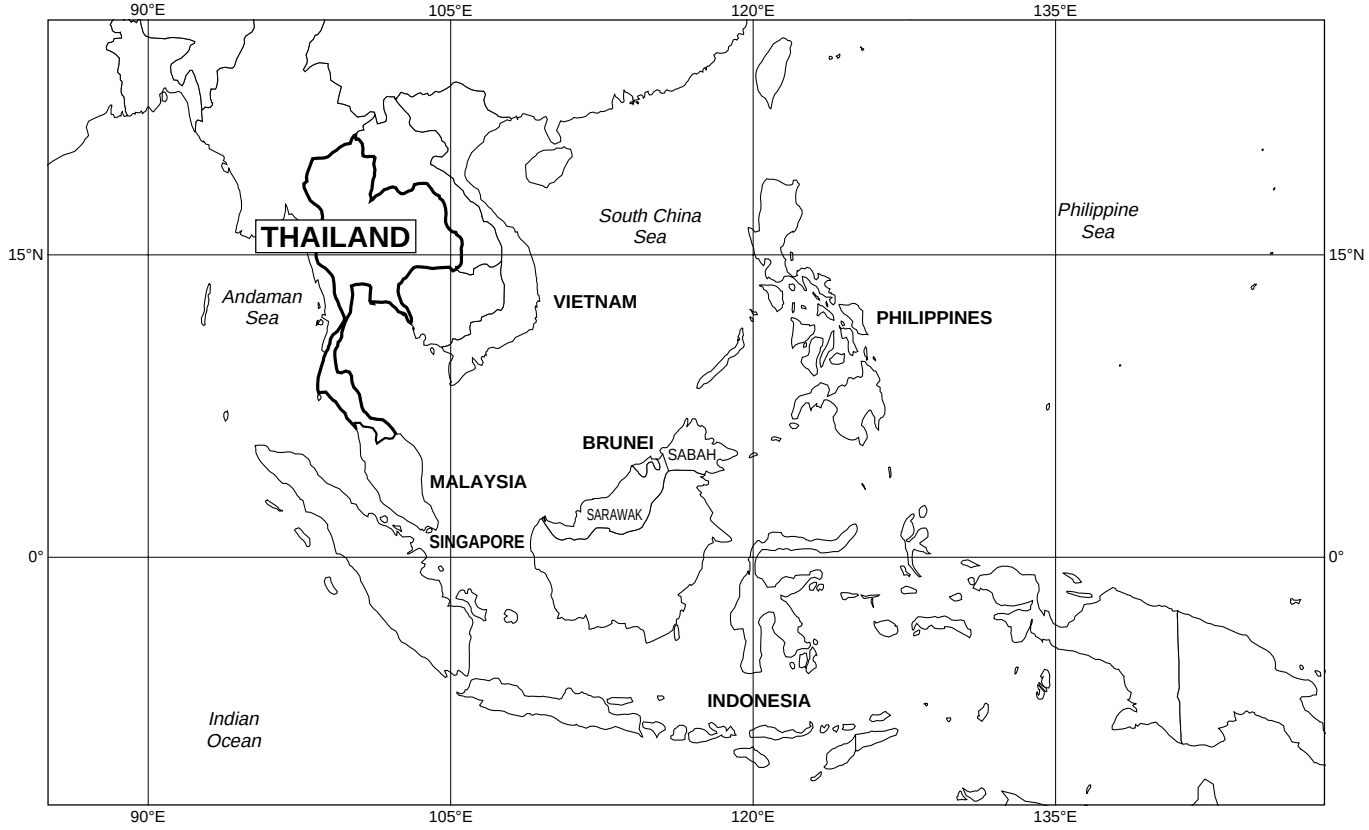
(effective 8 June 2000)



Ministry of Health, Singapore
Flowchart of Health and Health-Related Information



Thailand


90°E
105°E
120°E
135°E
15°N
0°
THAILAND
South China Sea
Philippine Sea
Andaman Sea
VIETNAM
PHILIPPINES
BRUNEI
SABAH
MALAYSIA
SARAWAK
SINGAPORE
INDONESIA
Indian Ocean

Thailand

1. Outline

It is well accepted that in the development of any country, the quality of life of the population is one of the most important factors which has to be arrived at. Among those acquired conditions, health status is considered the main element to come prior. The Ministry of Public Health has fully been involved in taking care of such responsibility by rendering health care to the population as a whole.

In Thailand the administrative area has been classified into several levels: central, provincial, district, subdistrict (tambon), and village. The health care delivery systems are provided in accordance with such an organizational structure.

In order to know the relevant status of health of the population, the system for collecting vital and health statistics has been established. Started with vital statistics, it was about 70 years ago that the registration of vital events became compulsory by laws in terms of births, deaths, and marriages. The responsible organization was the Ministry of Interior to which at that time the Health Department was attached. After that the Health Department was promoted and became the Ministry of Public Health, but the vital registration was still under the responsibility of the Ministry of Interior. When it came to the time for health development, the requirement for information concerning the health situation of population was not only confined to the vital statistics but also to other fields of health.

Within the context of health situation of the population, a variety of health information other than health and vital statistics is required so as to identify health problems. Health policies have been planned in accordance with the health problems of the people and subjected to the improvement of the unsatisfactory health situations. Health development plans are formulated to serve such policies and are included in the five-year National Economic and Social Development Plans. Particularly in the fourth five-year Plan (1977–1981), the Country Health Programming became the strategy for the health planning formulation in Thailand. With the concept of problem-oriented planning, the health problems are duly identified to prop up the health

policy in planning to solve them. Then the requirements for the health information including vital and health statistics have become greater and greater, and the effective approaches to obtain more reliable and timely information have been implemented, utilizing high technology. The validity and accuracy of the statistics and information have gradually come up to a satisfactory level, but the timeliness is still the major problem. So it is expected that with the modern technology of computerized data processing system, it will bring in more satisfaction to the users.

2. Population Statistics

Thailand has conducted a population census for the whole country for 9 times since 1910. At the beginning, the population census was under the responsibility of the Ministry of Interior. When the National Statistical Office was organized under the Office of the Prime Minister, the responsibility for conducting the population census was transfered from the Ministry of Interior to the National Statistical Office. The ninth census, "Population and Housing Census 1990," was undertaken on 1 April 1990.

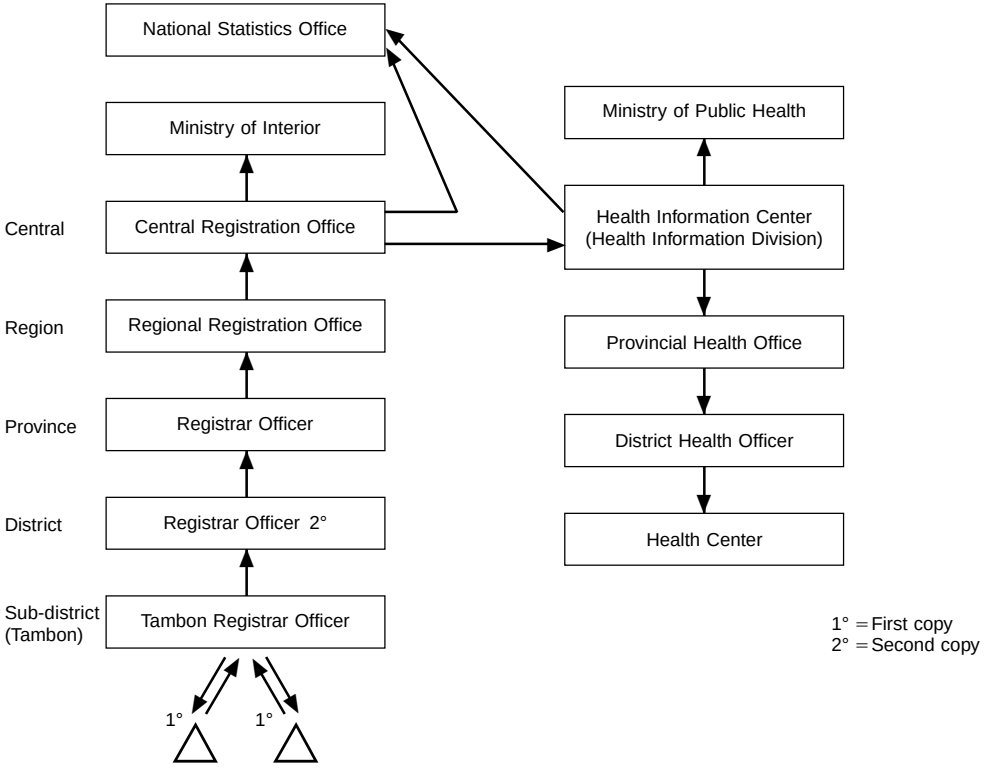
The main population statistics presented are put into 3 groups:

1. Census population and its components
2. Population estimates and expectation of life
3. Distribution of population

3. Vital Statistics

(1) Current System

The Vital Registration System of Thailand is at present under the jurisdiction of the Ministry of Interior. The function of this system is compulsory and nationwide which is very essential as a source of vital statistics. The raw data are collected through the channel of the local registrar office at the most peripheral level and are accumulated at higher levels until the data reach the central level. This system can be illustrated as follows.


National Statistics Office
Ministry of Interior
Central
Central Registration Office
Region
Regional Registration Office
Province
Registrar Officer
District
Registrar Officer 2°
Sub-district
(Tambon)
Tambon Registrar Officer
1°
1°
Ministry of Public Health
Health Information Center
(Health Information Division)
Provincial Health Office
District Health Officer
Health Center
1° = First copy
2° = Second copy

(2) Channel of Data Collection

When there occurs a vital event, birth or death, the owner of the household in the village must report it to the head of the district called *kamnun*. At the district, the notifiable birth or death certificate is issued to the informant who then hands it to the District Registrar Office for registration. The Office produces 2 copies of the birth or death certificate; the first copy is handed to the relative of the newborn or the deceased, while the second copy is kept at the Office.

The District Registrar Office keys the data into its database which are transmitted to the province by an online system. The database at the Provincial Registrar Office is linked to the database at the Central Registrar Office, Department of Local Administration, Ministry of Interior. The data are then transmitted online to the Health Information Centre, Bureau of Health Policy and Planning, Ministry of Public Health, and processed and analysed for various types of statistical presentation for inclusion in the annual report of the Ministry.

The National Statistical Office performs the function of publishing all national statistical figures for the whole country. Vital statistics from the Ministry of Public Health are also sent to this Office for publication on an annual basis.

The birth and death rates presented in Tables 2–1, 2–2, 2–3 and 2–4 in Part I are those obtained from the civil registration system as outlined above. There is, however, a certain amount of under-registration of births and deaths. The Survey of Population Change (SPC) undertaken by the National Statistics Office in 1995–1996 estimated the crude birth rate to be 17.9 per 1,000 population, as against the figures of 16.3 and 16.7 obtained from the civil registration system for 1995 and 1996, respectively. For the crude death rate, the SPC estimate was 6.0 per 1,000 population, as against 5.5 for 1995 and 5.9 for 1996 from the civil registration.

In 1997–1998 the crude death rate from the civil registration dropped to 5.0 and 5.2, but in 1999 it rose again to 5.9, because in this year the Ministry of Interior cleaned the mortality registration system by removing the records relating to people aged 100 years and over from the Central Household Register, resulting in the rise of the computed death rate. There is still large under-registration of infant mortality, since many of the deaths occurring soon after birth are not registered. The SPC estimate for 1995-1996 was as high as 26.1 per 1,000 live-births, but the figures obtained from the civil registration are still given in Part I of the present edition for the sake of continuity.

4. Health Statistics

Other health statistics can be obtained under the jurisdiction of the Ministry of Public Health. The diagram below illustrates the flow of information from the grass-roots of the health delivery system. The information can be classified into health status, health activities, and health resources.

(1) Health Status

(i) Morbidity data are collected from the outpatients and inpatients in hospitals and other health institutions. The disease categorization is based on the 10th edition of the International Classification of Diseases (ICD) provided by WHO.

(ii) Epidemiological data are keyed in an electronic format for producing a weekly report which is sent by post to the Epidemiology Division, but some provinces transfer data by e-mail.

(iii) Tabulation and Publication

Natality, morbidity and mortality data are published in *Public Health Statistics*. Epidemiological data are published yearly in the *Epidemiological Surveillance Report* and in other special publications weekly, monthly and quarterly.

(2) Health Activities

(i) This kind of health information can be obtained from each level of the health delivery system in accordance with the progress of the activities performed by the health personnel. The health indicators have been established for each programme or project, and the recording and reporting systems are required to facilitate the monitoring and evaluation of the health projects.

A variety of record and report formats have been designed and put into practice according to the requirements of the responsible health units. The publication of information is undertaken on an annual basis.

The health service personnel have to perform the task of recording and reporting of their health activities which consumes so much of their time that complaints are made against insufficient time devoted to rendering the services. There have been many attempts to reduce this burden by revising or simplifying the record and report forms, but problems still exist.

(ii) Coverage

Activities on health projects or programmes undertaken by public health personnel at all levels.

(iii) Contents of report

a. Health care delivery
b. Mental health
c. Referral system
d. Immunization
e. Venereal disease control
f. Leprosy control
g. Tuberculosis control
h. Worm and parasite control
i. Malaria control
j. Veterinary public health
k. Diarrhoea control
l. Maternal and child health
m. School health
n. Nutrition
o. Dental health
p. Health education
q. Health supervision
r. Epidemiological surveillance
s. Primary health care
t. Food sanitation
u. Planning management information

(iv) Data Collection Procedure

The statistical data are filled in the prescribed health activities report forms on a monthly basis by the various public service centres and sent to the Provincial Health Information Centre. The data are then compiled for the whole province and separately for municipal areas and sent to the Health Information Centre on quarterly and 6-monthly bases.

(v) Tabulation and Publication

The data are classified according to provinces, regions and the whole country and are published annually in *Public Health Statistics* and other special reports.

(3) Health Resources

(i) This kind of information is also essential for the administration in the health field. Without knowing the health resources, health activities could not run smoothly and efficiently. Health resources comprise health manpower, health institutions, hospitals and health centres, finance, budget, supplies and equipment. These kinds of information are collected on an annual basis and the Health Information Centre of the Ministry of Public Health has been assigned to perform this job.

(ii) Coverage

The data on health manpower, the number of health service units and the number of beds are collected from all government and state enterprises and private sectors. The data on budget, supplies and

equipment, buildings and construction can be collected only from health service units under the Ministry of Public Health.

(iii) Contents

a. Number of health service units classified by number of beds, specialties and type of organization
b. Number of health personnel
c. Buildings and construction
d. Equipment
e. Budget and finance

(iv) Data Collection Procedures

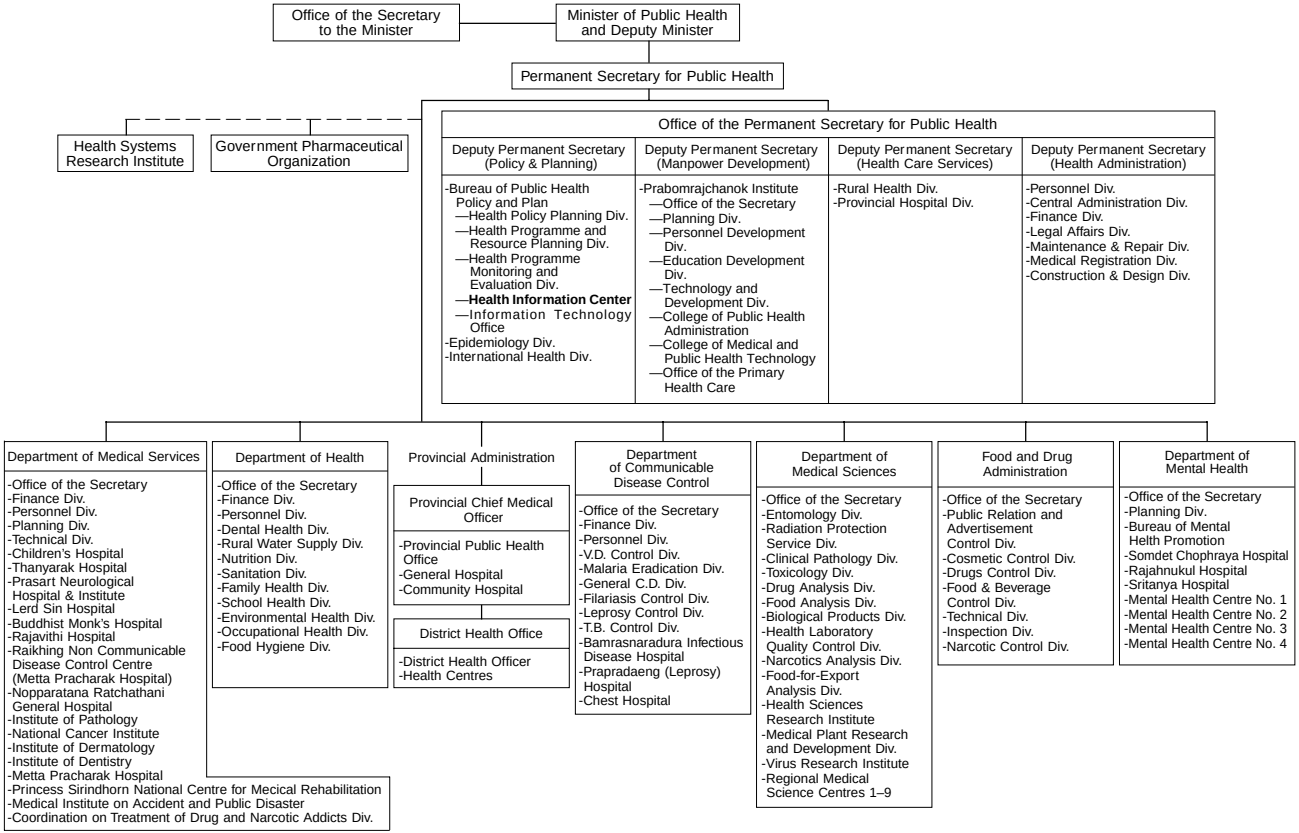
The data are collected in the prescribed health resources report form on a yearly basis by the various health service centres to the Central Health Information Centre.

(v) Tabulation and Publication

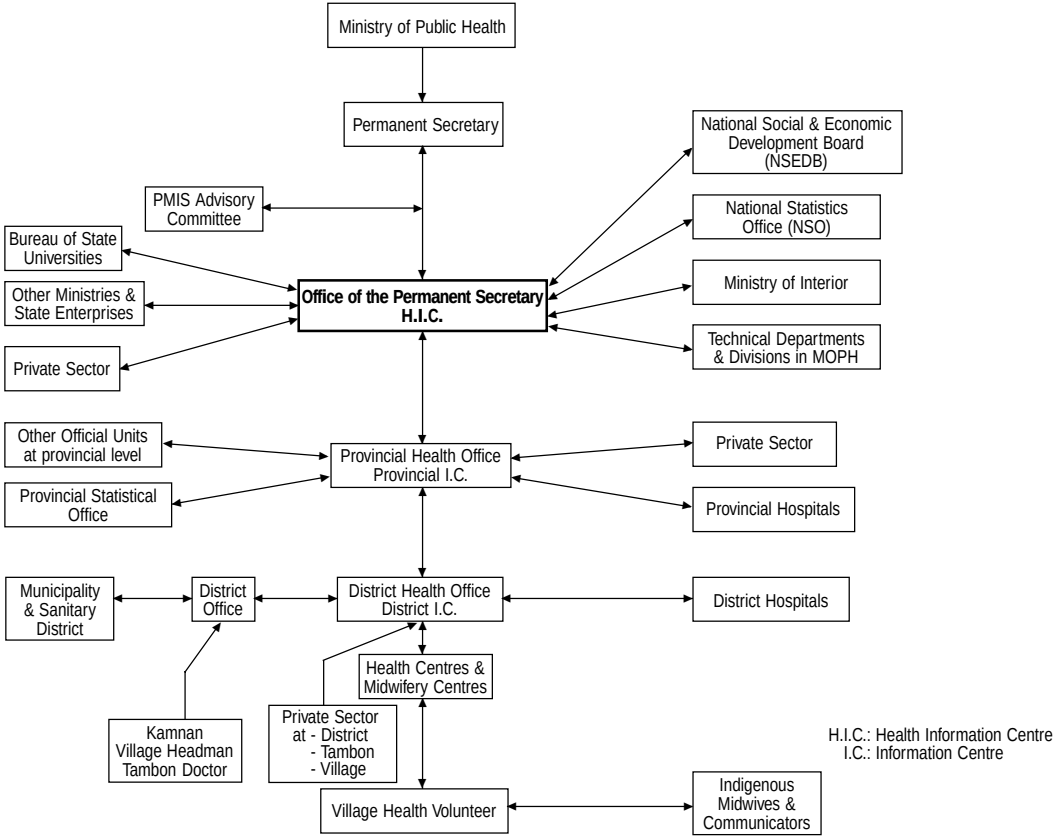
The data are collected and published annually in summary in the *Public Health Statistics* and in more details in the *Report on Health Resources*.

(Health Information Centre, Ministry of Public Health)

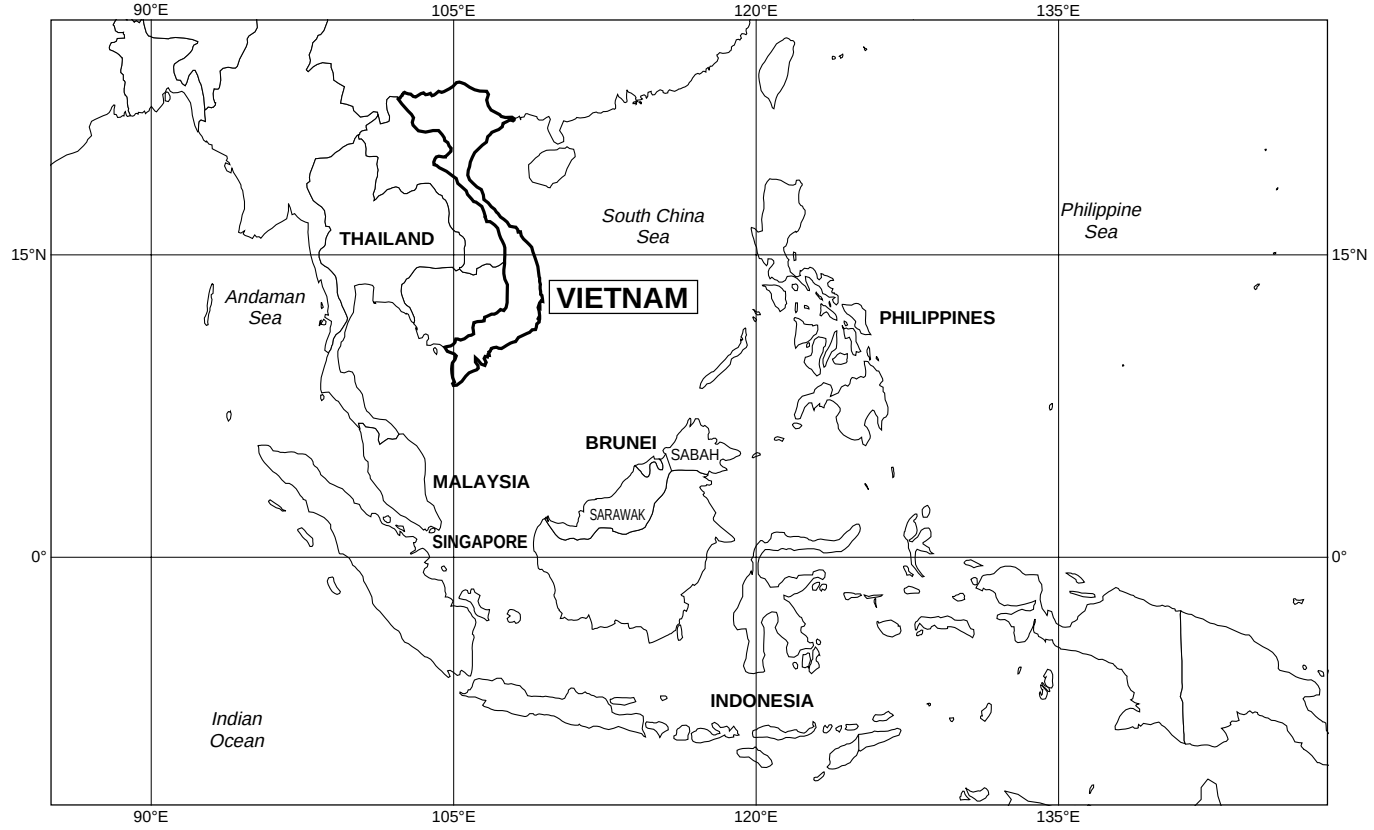
Organization Chart, Thailand



Thailand National Health Information System Network



Vietnam


90°E
105°E
120°E
135°E
15°N
0°
THAILAND
South China Sea
Philippine Sea
Andaman Sea
VIETNAM
PHILIPPINES
BRUNEI
SABAH
MALAYSIA
SARAWAK
SINGAPORE
INDONESIA
Indian Ocean

Vietnam

1. Population Census

(1) Background information

The major sources of information on population in Vietnam are censuses. The first population census was conducted in Vietnam in 1959. It has been repeated every ten years since then. Between censuses, intercensal population surveys were conducted with an interval of five years. All censuses and population surveys have been organized by the General Statistics Office (GSO).

(2) Purpose

The main purpose of the censuses is to obtain updated information on the population of the country. The intercensal population surveys aim at collecting information on fertility, morbidity, mortality, family planning and mother/child health care. The information is used for making national plans as well as health plans.

(3) Coverage

Due to the war and separation of the country, the first two censuses were conducted only in the North of Vietnam. The two later censuses covered the whole country.

(4) Contents

The 1989 census, the latest one, collected data from the population on age, sex, marital status, nationality, educational level, occupation, employment status, labour force and other data on economic status of the households. The 1994 intercensal population survey collected data about fertility, mortality, family planning, and mother and child health.

2. Vital Statistics

(1) Background information

The major sources of information on vital statistics in Vietnam are registrations of births and deaths. The registers are fulfilled at the commune level, the lowest administrative level in Vietnam. At this level, the People Committees are responsible for vital registrations. The crude data are summarized in monthly reports which are referred to higher levels and end at the GSO as the central level.

(2) Purpose

The main purpose of the vital registrations is to obtain data on births, age at death and causes of death, so that changes in the population of the country can be projected. The data are very useful for health planning, family planning and population programmes.

(3) Coverage

Nationwide

(4) Contents

The birth registration statistics cover the address, age and occupation of the mother, date of birth and name of the baby. The death registration statistics cover information on name, age, address, date of death and cause of death.

3. Health Statistics

3.1. Health Management Information System (HMIS)

(1) Background information

A major proportion of health statistics are collected by the HMIS under the Department of Planning (Division of Health Statistics and Information), Ministry of Health (MOH). This is the official system according to the Decision No. 882/BYT-QD issued by the Ministry of Health on 15 August 1992. The crude data are collected by a set of seven primary registers at the commune health centre. Based on these registers, a

monthly health statistics report is compiled by the head of the commune health centre and referred to the district health bureau, where data are further referred to the provincial health bureau and finally to MOH in quarterly health statistics reports. In addition, some other sources also provide data for the HMIS (see diagram below).

(2) Purpose

The main purpose of the HMIS is to provide timely health statistics to health managers and health policy makers. These statistics are used to monitor, supervise and evaluate health activities at different levels.

(3) Coverage

Nationwide

(4) Contents

The HMIS covers a wide range of health statistics, including data on (1) health resources (health facilities, manpower, and health budget); (2) health performance (preventive and curative services); and (3) health outcomes (mortality, morbidity, etc.).

3.2. Hospital-Based Statistics System (HBSS)

(1) Background information

The HMIS mainly collects data from commune health centres where primary health care is provided. Data from all Government hospitals of the country are collected by the HBSS. Quarterly reports are referred to the MOH (Department of Therapy) through the provincial health bureau.

(2) Purpose

The main purpose of this system is to provide information on the performance of curative care for its management.

(3) Coverage

Nationwide

(4) Contents

The HBSS collects data on hospital facilities and equipment, manpower, curative services (consultations, out-patients, in-patients), laboratory services, financial management, etc.

3.3. Statistics Systems of Vertical Health Programmes

(1) Background information

Currently, many vertical health programmes, e.g. ARI, CDD, malaria, tuberculosis, family planning, etc., are being implemented in Vietnam. The HMIS concentrates on collecting data for basic and essential indicators for planning purposes of the health sector. Nevertheless, it can not cover all the information required by the vertical programmes. Therefore, vertical programmes often create their own systems so that detailed information needed for programme management can be collected. Data are collected at the basic level (commonly at the commune health centre) and aggregated in periodical reports. These reports are referred to higher levels through the management system of the programme under the programme manager concerned at the central level.

(2) Purpose

The main purpose of these systems is to provide information on the performance of the programmes for their management.

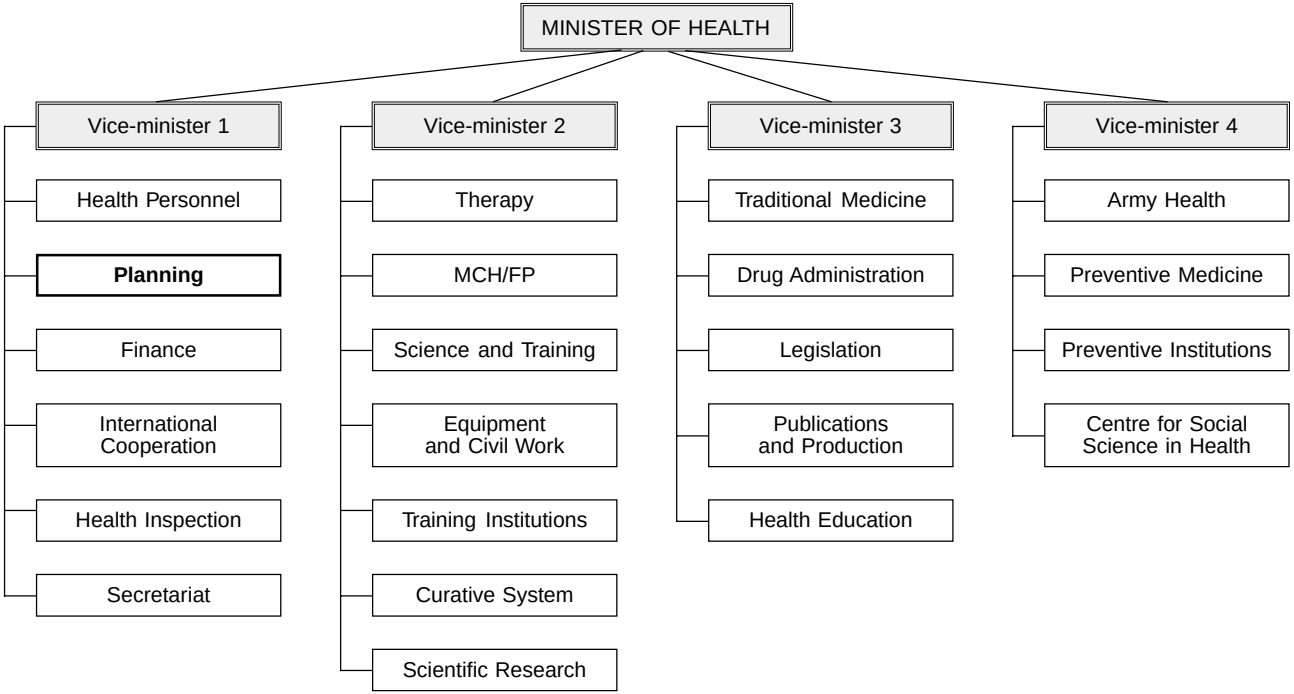
(3) Coverage

Within the coverage areas of the vertical health programmes.

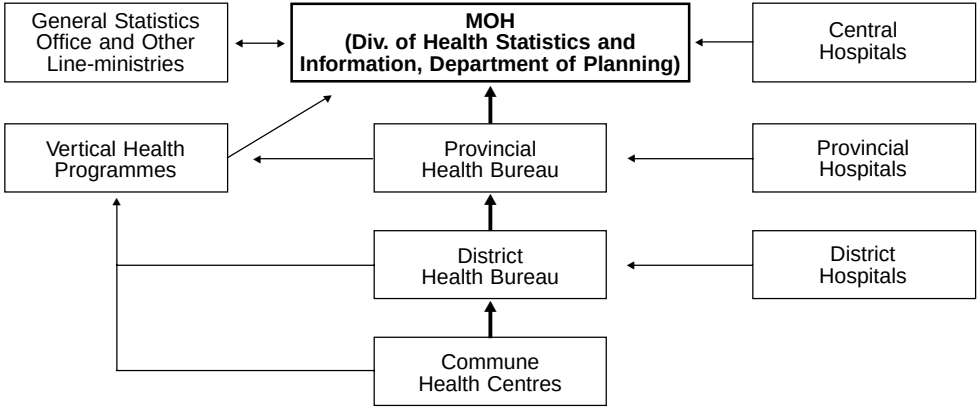
(4) Contents

The contents depend on each programme. In general, following data are collected: coverage, programme performances (service delivery) and programme outcomes.

Organization Chart of the Ministry of Health, Vietnam



Health Management Information System Chart, Vietnam



INDEX

Part I

[n]

Part II

APPENDIX

List of Organizations Related to Health Statistics

BRUNEI

Ministry of Health	Bandar Seri Begawan 1210 Negara Brunei Darussalam

INDONESIA

Centre for Health Data and Information Ministry of Health and Social and Welfare	Jalan H.R. Rasuna Said Blok X 5, Kav. 4-9 Jakarta
Directorate-General of Communicable Diseases Control Ministry of Health and Social welfare	Jalan Percetakan Negara 29 P.O. Box 223, Jakarta
BPS-Statistics Indonesia	Jalan Dr. Sutomo No. 8 P.O. Box 3, Jakarta

JAPAN

Statistics and Information Department The Ministry of Health, Labour and Welfare	2-3, Kasumigaseki 1-chome, Chiyoda-ku Tokyo 100-0013
Health Service Bureau Ministry of Health, Labour, and Welfare	2-2, Kasumigaseki 1-chome, Chiyoda-ku Tokyo 100-8045
Statistics Bureau & Statistics Center Ministry of Public Management, Home Affairs, Posts and Telecommunication	19-1, Wakamatsu-cho, Shinjuku-ku Tokyo 162-8668
Ministry of Education, Culture, Sports, Science and Technology	3-2-2 Kasumigaseki, Chiyoda-ku Tokyo 100-8959
National Defense Medical College	3-2 Namiki, Tokorozawa-shi Saitama 359-8513

MALAYSIA

Information & Documentation System Unit Ministry of Health (Kementarian Kesihatan)	TKT. 10, Bangunan Perkim, Jalan Ipoh, 51200 Kuala Lumpur
Department of Statistics Malaysia	Parcel C, Block C6, Pusat Pentadbiran Kerajaan Persekutuan, Putra Jaya

PHILIPPINES

National Epidemiology Center Department of Health	San Lazaro Compound, Sta. Cruz, Manila
Bureau of Health Facilities and Services Department of Health	San Lazaro Compound, Sta. Cruz, Manila
National Center for Health Facility and Development Department of Health	San Lazaro Compound, Sta. Cruz, Manila
National Statistics Office	Magsaysay Blvd., Sta. Mesa, Manila
Food and Nutrition Research Institute	Food and Nutrition Research Institute DOST Compound, Gen. Santos Ave. Bicutan, Taguig, Metro Manila
National Statistical Coordination Board	1st, 2nd and 5th Floors, Midland Buendia Bldg., 403 Sen. Gil J. Puyat, Avenue, Makati

SINGAPORE

Health Information Management Branch, InfoComm Division, Ministry of Health	College of Medicine Bldg., 16 College Road, Singapore 169854
Joint Co-ordinating Committee on Epidemic Diseases	College of Medicine Bldg., 16 College Road, Singapore 169854
Department of Statistics	100 High Street, #05-01, The Treasury Singapore 179434

THAILAND

Health Information Division, Ministry of Public Health	Tivanond Road, Nonthaburi 11000
Epidemiology Division, Ministry of Public Health	Tivanond Road, Nonthaburi 11000
National Statistical Office, Office for the Prime Minister	Lanlaung Road, Khate Pomprab, Bangkok 10100

VIETNAM

Department of Planning, Ministry of Health	138A Giang Vo Street, Hanoi

WHO

WHO Regional Office for the Western Pacific	United Nations Avenue, P.O. Box 2932, 12115, Manila, The Philippines
WHO Regional Office for South-East Asia	World Health House, New Delhi 110002, India

Corrigenda for *SEAMIC Health Statistics 1999*

Table 2–5, p. 38–p.39	Thailand	Age 0-4: Number T **15,163,** M **7,576,** F **7,587** Unknown: Number T **650,** M **269,** F **381** Rate T **283.9,** M **281.2,** F **286.5**		
Table 2–7 p. 44	JAPAN	Age 30: F **98,997**		
Table 4–2 p. 88	JAPAN	Rate: 2–6 days T **0.3**		
Table 4–3 p. 90	JAPAN	1998: **7.4**		
Table 5–1 p. 100	JAPAN	003,005/A02,A04,A05 Food Poisoning (Bacterial): **36,337**		
p. 101	PHILIPPINES	036/A39 Meningococcal Infection: **92**		
Table 6–5 p. 112	Ref. Numbers	PHILIPPINES (4)	SINGAPORE (5)	THAILAND (6)
Table 6–6 p. 114	Ref. Numbers	PHILIPPINES (4)	SINGAPORE (5)	THAILAND (6)
Table 7–4 p. 122	Ref. Number	SINGAPORE (3)		
	Source	**(3) Ministry of Health** **(4)** National Statistical Office		
Table 8–3 p.132	JAPAN	7 Tuberculosis Hospitals, Beds: **328**		
p.133	JAPAN	12 Total, Beds: **1,891,945**		
Table 8–4 p.134	JAPAN	General Hospitals	Bed Occupancy Rate (%): **82.1**	
	Note	Delete **b)**.		
p.135	JAPAN	Tuberculosis Hospitals	Beds per 100,000 Population: **0.3**, Admissions per Bed: **1.4**, Bed Occupancy Rate (%): **68.8**	
	Note	Delete **a)**.		
p.136	JAPAN	Mental Hospitals	Beds per 100,000 Population: **206.0**, Admissions per Bed: **0.7**, Bed Occupancy Rate (%): **94.5**	
	Note	Delete **a)**.		

Corrigenda for Japan's data of Table 9–8/9–9 Situation of Medical Schools in *SEAMIC Health Statistics 1993–1999*

Year	1992	1993	1994	1995	1996	1997	1998
Total Enrolment	**50,443**	**49,823**	**49,127**	**49,120**	**48,546**	**48,201**	**48,107**
Admissions	**7,656**	**7,680**	**7,648**	**7,653**	**7,668**	**7,660**	**7,591**
Graduates	**7,973**	**8,215**	**8,250**	**7,962**	**7,778**	**7,945**	**7,646**

Source: Ministry of Education, Science, Sports, and Culture **and National Defense Medical College**