

SEAMIC HEALTH STATISTICS

1992

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International Medical Foundation of Japan

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Foreword

It is my great pleasure to send you the 1992 edition of SEAMIC Health Statistics. I would like to express my appreciation to the devoted work of our Editorial Board Members.

I hope this publication will serve your reference.

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

Preface

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

The present issue follows the same general pattern as in the 1991 edition. It is composed of two parts. 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, thus providing the background information as to how the statistics included in Part I have been collected, processed and produced.

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

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

February, 1994

Kazuo Uemura
Chairman
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SEAMIC HEALTH STATISTICS

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Explanation of Symbols

••	Category not applicable
(blank) or NA	Data not available
—	Nil
0	Not nil, but less than half of the unit employed
0.0	
*	Provisional or estimated

Part I

Health Statistics

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

	Latest Census						Annual Rate of Increase 1981-1990 (%)	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) 3.0	5,765	45
INDONESIA ⁽²⁾	1991	182,940,100	91,223,300	91,716,800	99.5	4.5	2.0	1,919,443	95
JAPAN ⁽³⁾	1 October 1990	123,611,167	60,696,724	62,914,443	96.5	2.99	b) 0.4	377,737	332
MALAYSIA ⁽⁴⁾	14 August 1991	17,566,982	8,861,124	8,705,858	101.8	4.91	c) 2.3	329,758	53
Peninsular Malaysia		14,127,556	7,080,980	7,046,576	100.5	4.87	2.2	131,598	107
Sabah		1,791,209	936,772	854,437	109.6	5.09	3.8	73,711	24
Sarawak		1,648,217	843,372	804,845	104.8	4.97	2.4	124,449	13
PHILIPPINES ⁽⁵⁾	1 May 1990	60,487,185	30,410,475	30,076,710	101.1	5.6	c) 2.5	300,000	201
SINGAPORE ^(6) d)	30 June 1990	2,705,115	1,370,059	1,335,056	102.6	4.2	e) 1.8	f) 639	f) 4,323
THAILAND ⁽⁷⁾	1 April 1990	54,532,000	27,031,000	27,501,000	98.3		1.4	513,115	109.8

Source: (1) Statistics Section, Economic Planning Unit, Ministry of Finance
(2) *Population Projection Indonesia by Province*, Central Bureau of Statistics
(3) *1990 Population Census of Japan*, Statistics Bureau, Management and Coordination Agency
(4) *Population and Housing Census of Malaysia, 1991*
(5) National Statistics Office
(6) *Census of Population 1990 Singapore Yearbook of Statistics*, Singapore 1992, Department of Statistics

(7) *Preliminary 1990 Population and Housing census*, National Statistics Office, Office of the Prime Minister.

Note: a) Annual rate of increase 1981-1991
b) Annual rate of increase 1985-1990
c) Annual rate of increase 1978-1987
d) Refer to Singapore residents only
e) Annual rate of increase 1982-1991
f) Year 1991

1-2 Estimates of Mid-year Population

(in millions)

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

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance
 (2) *Indonesian Population Projection 1980-2000*, Central Bureau of Statistics
 (3) *Japan Statistical Yearbook*, Statistics Bureau, Management and Coordination Agency
 (4) *Vital Statistics, Peninsular Malaysia, Sabah and Sarwak*, Department of Statistics
 (5) National Statistics Office
 (6) *Report on Registration of Births and Deaths*, National Registration Department
 (7) *Report of Working Group on Population Projections*,

Office of the National Economic and Social Development Board.

Note : a) Population Survey
 b) For 1992
 c) Japanese population only
 d) Population figures from 1980 onwards refer to Singapore residents only
 e) Estimates based on total population figures, *1980 Population & Housing Census*, National Statistical Office

1-3 Population Estimates and Projections

(in thousands)

	1995	2000	2005	2010	2015	2020	2025	2030	2035
BRUNEI ⁽¹⁾	295	337							
INDONESIA ⁽²⁾	181,205	183,097	185,009	186,941	188,894	190,866	192,860	194,874	
JAPAN ^(3) a)	125,463	127,385	129,346	130,397	130,033	128,345	125,806	122,972	120,132
MALAYSIA ⁽⁴⁾	19,748	22,454		23,692					
PHILIPPINES ⁽⁵⁾	68,424	75,224	81,591	87,206	92,430	97,682	102,686	107,123	111,560
SINGAPORE ^(6) b)	2,862	2,995	3,099	3,177	3,238	3,285	3,311	3,303	
THAILAND ⁽⁷⁾	60,506	64,389	67,910	70,865	73,208				

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance

(2) Based on *Population Formula Census 1990*, Central Bureau of Statistics.
Calculated by Centre for Health Data(3) *Future Populations for Japan*, provisionally prepared in June 1992,
Institute of Population Problems, Ministry of Health and Welfare(4) Information and Documentation System Unit, Planning and Development
Division, Ministry of Health(5) Based on *Population Projections, (Series 2 : Moderate Fertility Decline and
Moderate Mortality Decline)*, National Statistics Office

(6) Population Planning Unit, Ministry of Health

(7) *Report of Working Group on Population
Projections*, Office of the National Economic and
Social Development Board

Note : a) Population on 1 October

b) Refer to Singapore residents only

1 - 4 Population by Age and Sex

	Year	Sex	Age								
			All Ages	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34
(1)	1992	T	267.8	34.8		30.7	26.8	23.0	25.2	27.6	27.7
BRUNEI		M	141.3	18.0		15.8	13.8	11.8	12.9	14.5	14.9
		F	126.5	16.8		14.9	13.0	11.2	12.3	13.1	12.8
(2) a)	1991	T	182,940.1	21,763.1		22,425.7	22,087.4	19,426.4	16,933.5	15,507.8	13,903.8
INDONESIA		M	91,223.3	11,078.7		11,368.9	11,374.9	9,819.4	8,152.6	7,371.8	6,877.3
		F	91,716.8	10,684.4		11,056.8	10,712.5	9,607.0	8,780.9	8,136.0	7,026.5
(3) b)	1991	T	123,102	6,300		7,281	8,184	9,833	9,274	7,851	7,644
JAPAN		M	60,425	3,231		3,731	4,197	5,044	4,726	3,971	3,859
		F	62,677	3,069		3,550	3,986	4,789	4,548	3,880	3,785
(4)	1991	T	18,181	2,435		2,306	1,917	1,843	1,710	1,607	1,371
MALAYSIA		M	9,164	1,257		1,186	983	941	871	801	664
		F	9,017	1,178		1,120	934	902	838	806	707
(5)	1991	T	62,111	1,739	6,708	7,832	7,472	6,615	5,913	5,211	4,546
PHILIPPINES		M	31,205	888	3,435	4,000	3,820	3,397	3,025	2,559	2,180
		F	30,906	845	3,273	3,832	3,652	3,218	2,888	2,652	2,366
(6) c)	1991	T	2,762.7	50.0	184.5	205.0	200.6	217.1	228.9	282.1	298.1
SINGAPORE		M	1,398.0	26.1	95.3	106.6	103.7	112.0	116.5	142.1	151.9
		F	1,364.7	23.9	89.2	98.4	96.9	105.1	112.4	140.0	146.2
(7)	1991	T	57,196	6,144		6,335	6,254	6,151	6,033	5,379	4,574
THAILAND		M	28,621	3,120		3,202	3,166	3,128	3,070	2,724	2,292
		F	28,575	3,024		3,133	3,088	3,023	2,963	2,655	2,282

Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance

(2) *Population Projection, Indonesia by Province 1990-1995*

Central Bureau of Statistics

(3) *Vital Statistics Japan*, Ministry of Health and Welfare

(4) Department of Statistics

(5) National Statistics Office

(6) Department of Statistics

(7) *Report of Working Group on Population*

Projections, Office of the National Economics and Social Development Board

Note : a) Excluding non-permanent resident(homeless people, sailor, boat people and remote area communities) 7,420 person

b) Refer to Japanese residents population only

c) Refer to Singapore residents population only

(in thousands)

Age										
35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
22.6	15.9	9.3	7.5	5.3	4.0	2.7		4.7		
12.6	9.1	5.3	4.0	2.7	2.1	1.4		2.4		
10.0	6.8	4.0	3.5	2.6	1.9	1.3		2.3		
11,412.7	8,860.6	7,568.1	6,667.1	5,364.5	4,232.1	2,900.5	2,023.5		1,863.3	
5,847.2	4,490.7	3,738.9	3,271.5	2,607.8	2,051.2	1,408.5	939.0		824.9	
5,565.5	4,369.9	3,829.2	3,395.6	2,756.7	2,180.9	1,492.0	1,084.5		1,038.4	
8,521	11,183	8,548	8,223	7,844	6,897	5,405	3,893	3,091	1,953	1,178
4,289	5,617	4,256	4,068	3,846	3,323	2,385	1,572	1,223	716	372
4,232	5,566	4,292	4,155	3,997	3,574	3,020	2,321	1,869	1,237	807
1,159	936	689	627	477	390	275	214	111	114	
569	471	352	318	233	188	130	99	50	50	
590	465	337	309	244	202	145	115	61	64	
3,845	3,000	2,354	1,969	1,540	1,205	882	627	404	168	81
1,894	1,516	1,186	981	752	578	410	286	186	75	37
1,950	1,484	1,168	988	789	627	472	342	224	93	43
265.0	221.4	127.8	125.5	100.9	85.3	62.0	46.1	32.7	19.1	10.6
135.0	112.2	64.7	62.8	50.2	42.1	30.4	21.1	14.0	7.7	3.6
130.0	109.2	63.1	62.7	50.7	43.2	31.6	25.0	18.7	11.4	7.0
3,794	2,937	2,312	2,030	1,711	1,327	941	623		651	
1,888	1,468	1,151	986	814	626	439	280		267	
1,906	1,469	1,161	1,044	897	701	502	343		384	

1 - 5 Urban and Total Population

(in thousands)

	1960			1970			1980			1990		
	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) 260	173	66.5
INDONESIA (2)	d) 97,085	14,358	14.8	119,143	20,733	17.4	146,776	32,846	22.4	175,588	50,456	28.7
JAPAN (3)	94,300	59,698	63.3	104,666	75,429	72.1	117,600	89,187	76.2	123,611	95,644	77.4
MALAYSIA (4)	8,170	2,060	25.2	10,439	2,787	26.7	13,745	4,687	34.1	(5) 17,877	7,282	40.7
Peninsular Malaysia				8,810	2,530	28.7	11,426	4,250	37.2	14,605	6,527	44.7
Sabah				653	107	16.7	1,011	208	20.6	1,517	388	25.6
Sarawak				975	149	15.4	1,307	230	17.6	1,755	366	20.9
PHILIPPINES (6)	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 (7)	d) 1,446	1,132	78.0	2,075	1,562	75.0	e) 2,282	2,282	100.0	e) 2,705	2,705	100.0
THAILAND (8)	(9) 26,258	3,274	12.5	34,397	4,553	13.2	44,824	7,633	17.0	f) 53,870	9,697	18.0

Source: (1) Statistics Section, Economic Planning Unit, Ministry of Finance
 (2) *Population of Indonesia*, Central Bureau of Statistics
 (3) *Japan Statistical Yearbook*, Management and Coordination Agency
 (4) *General Report of the Population Census 1980, Vol. I*, Department of Statistics
 (5) *Fifth Malaysia Plan Report 1986-1990*
 (6) National Statistics Office
 (7) *Report on the Census of Population 1970, Singapore, Vol. I*, Department of Statistics
 (8) *Population & Housing Census*, National Statistical Office, Office of the Prime Minister
 (9) *1960 Population Census*, Central Statistics Office, National Economic Development Board

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

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

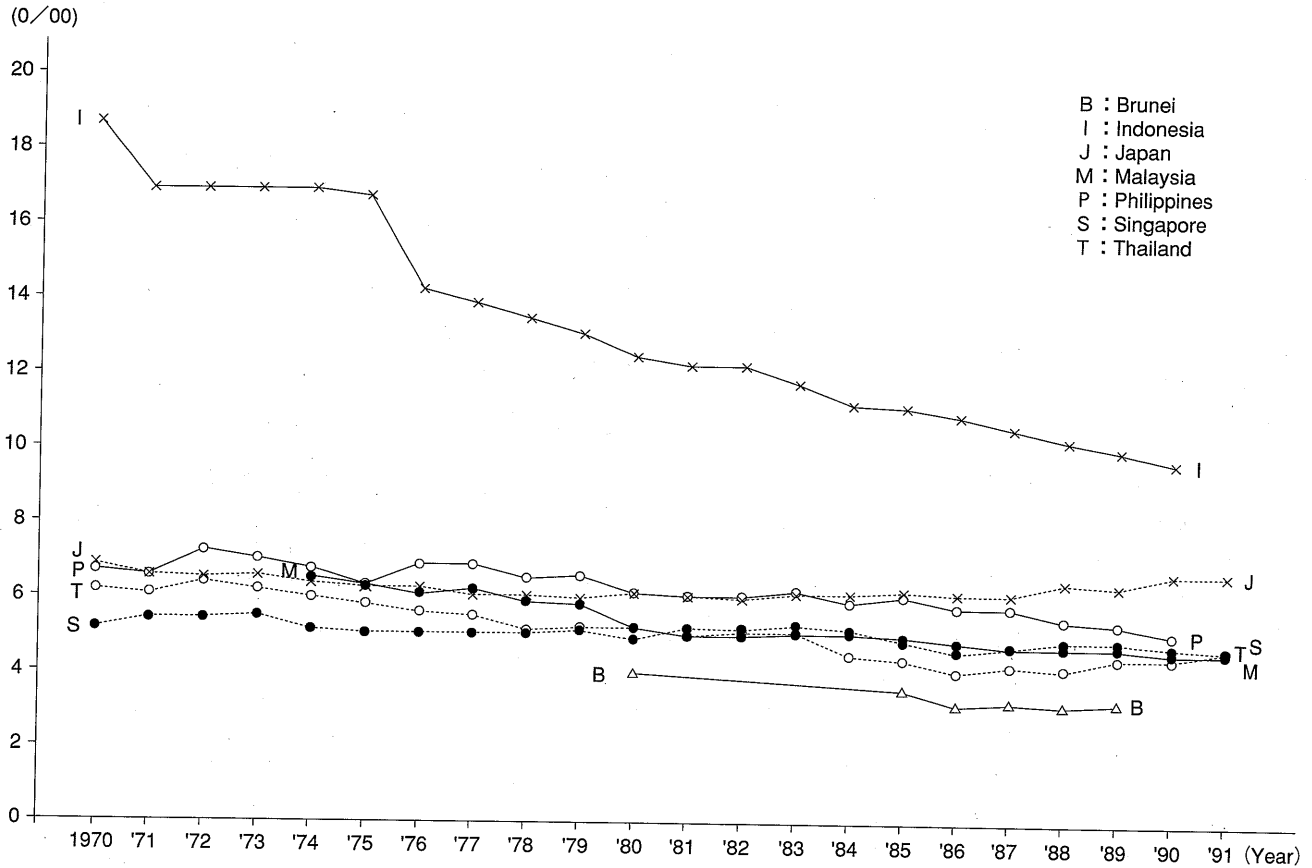
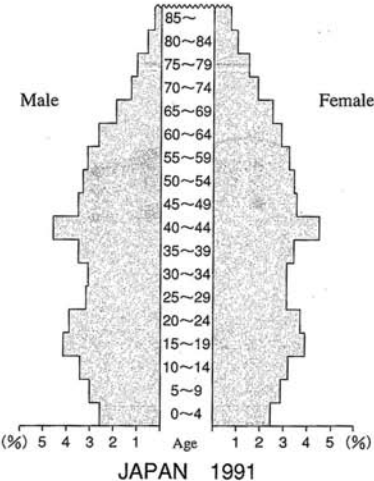
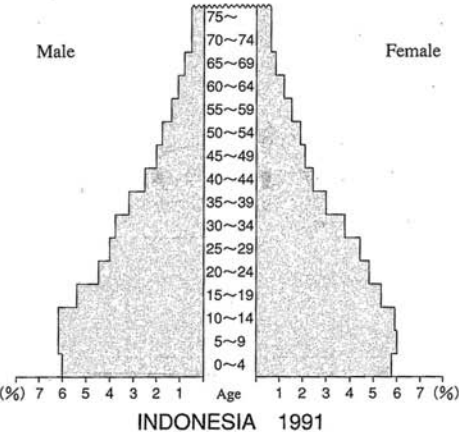
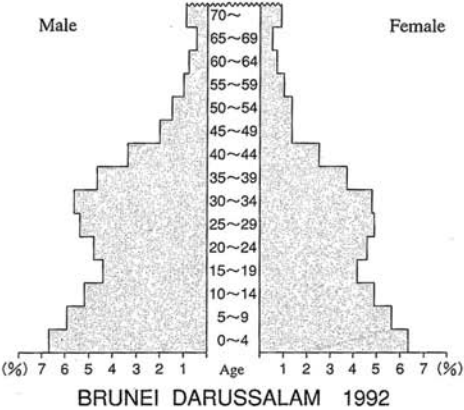
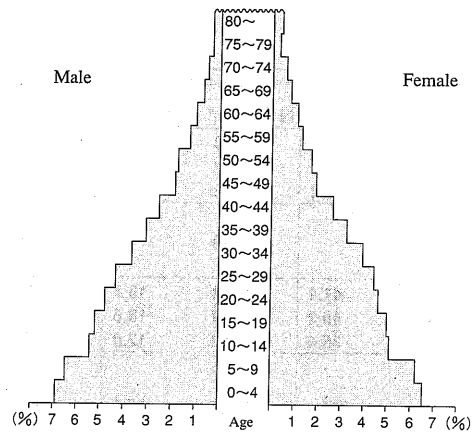
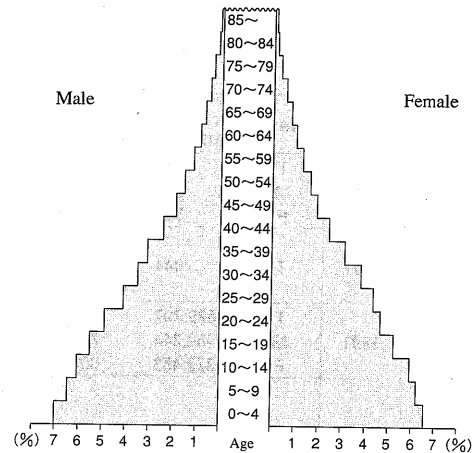


Fig.2 Population Pyramid

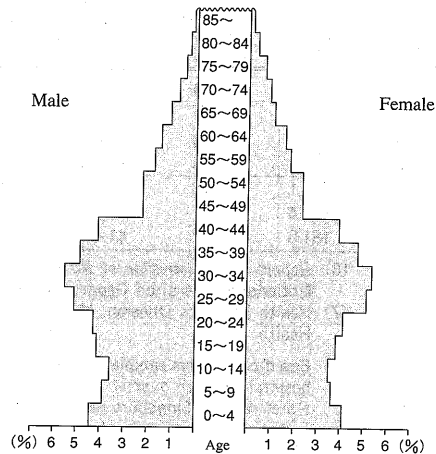




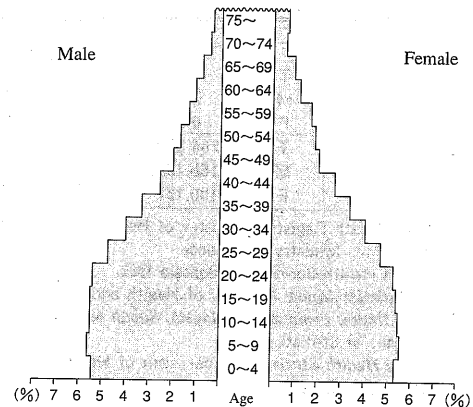
MALAYSIA 1991



PHILIPPINES 1991



SINGAPORE 1991



THAILAND 1991

2 Deaths and Death Rates by Age

	Year	Sex	All ages		0		1-4		5-14		15-24	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI (1)	1992	T	887	331.2	85			244.3	18	31.3	45	93.4
		M	534	377.9	51			283.3	10	33.8	37	149.8
		F	352	278.3	33			196.4	8	28.7	8	34.0
INDONESIA (2) a)	1991	T	944		150		79		49		37	
JAPAN (3)	1991	T	829,797	674.1	5,418	442.9	2,109	41.4	2,424	15.7	8,912	46.6
		M	450,344	745.3	2,915	463.7	1,206	46.2	1,472	18.6	6,582	67.4
		F	379,453	605.4	2,503	420.9	903	36.4	952	12.6	2,330	25.0
MALAYSIA (4)	1991	T	71,456	478.2	6,219			321.4	1,725	50.2	2,981	102.6
		T	6,194	405.0	1,305			466.2	203	50.0	354	128.0
		T	6,201	362.9	543			246.2	112	29.7	226	61.2
PHILIPPINES (5)	1990	T	313,890	505.4	39,633	2,278.9	23,932	356.8	14,112	92.2	17,004	135.7
		M	185,788	595.4	23,021	2,591.9	12,931	376.5	7,984	102.1	11,433	178.0
		F	128,102	414.5	16,612	1,966.6	11,001	336.1	6,128	81.9	5,571	91.2
SINGAPORE (6) b)	1991	T	13,876 c)	467.4	289 c)	506.0	85	29.3	94	21.0	308	50.2
		M	7,840	517.6	150	544.1	35	31.5	49	20.9	210	63.5
		F	6,034	418.0	117	464.4	30	26.9	45	21.0	98	36.3
THAILAND (7)	1991	T	264,350	466.5	12,338			211.1	6,208	50.6	17,028	139.7
		M	155,198	547.7	7,112			239.4	3,701	59.6	12,794	206.7
		F	109,152	385.4	5,226			181.8	2,507	41.4	4,234	70.6

Source : (1) Birth and Death Registry, Ministry of Health and Statistics Section Economic Planning Unit, Ministry of Finance.

(2) Household Health Survey in Indonesia 1992

(3) *Vital Statistics Japan*, Ministry of Health and Welfare

(4) *Vital Statistics, Peninsular Malaysia, Sabah & Sarawak-1991*, Department of Statistics

(5) *Philippine Health Statistics*, Department of Health 1990, Health Intelligence Service.

(6) *Report on Registration of Birth and Deaths*, National Registration Department, Singapore

(7) Health Statistics Division, Ministry of Public Health

Note : a) Based on 10 days sample of discharges from hospital for each quarter

b) Rates refer to Singapore residents only

c) Includes unknown sex

(rate per 100,000 population)

25-34		35-44		45-54		55-64		65-74		75 & over		Unknown	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Total	Rate
50	90.4	75	194.8	72	455.7	127	1,365.6	415			5,608.1		
42	142.9	49	225.8	42	451.6	74	1,541.7	229			6,542.9		
8	30.9	26	154.8	30	400.0	53	1,177.8	186			5,166.7		
48		72		94		415							
9,075	58.6	24,264	123.1	51,369	306.3	111,246	754.7	162,514	1,747.8	452,050	7,265.3	416	
6,029	77.0	15,591	157.4	33,820	406.3	76,523	1,067.4	97,497	2,463.9	208,365	9,016.2	344	
3,046	39.7	8,673	88.5	17,549	207.8	34,723	458.6	65,017	1,217.3	243,685	6,227.6	72	
3,288	132.7	4,062	231.3	6,349	575.6	11,265	1,543.3	15,544	3,818.0	19,866	10,603.3	157	
427	188.4	437	286.7	654	712.9	864	1,569.7	966	3,229.5	950	8,833.1	34	
284	104.3	353	189.3	584	482.3	1,034	1,249.2	1,483	2,876.3	1,535	5,679.9	48	
22,116	226.7	23,151	338.2	28,318	655.1	35,482	1,292.5	110,141			5,095.1	1	0.0
15,432	325.6	15,709	460.7	18,966	874.9	22,819	1,716.8	57,492			8,264.6	1	0.0
6,684	133.2	7,442	216.7	9,352	433.9	12,663	894.2	52,649			4,485.0	0	0.0
516	66.9	744	129.7	1,123	397.2	2,450	1,246.5	3,364	2,994.4	4,906	7,544.9	37	
358	86.7	465	154.1	723	509.0	1,590	1,630.6	1,952	3,654.4	2,277	8,668.0	31	
158	46.5	279	104.5	400	283.8	860	869.0	1,412	2,394.0	2,629	6,779.0	6	
18,968	190.6	21,621	320.6	28,136	645.9	51,125	1,672.3	114,944			5,103.7	3,982	
14,126	282.0	14,816	441.0	17,663	823.6	25,107	1,730.1	57,444			5,720.3	2,435	
4,842	97.9	6,805	201.1	10,473	473.6	16,018	997.3	57,500			4,607.6	1,574	

3 Ten Leading Causes of Death

	Year	1	2	3	4	
BRUNEI (1)	1992	Malignant Neoplasms	Heart Diseases	Accidents, Poisoning and Violence	Cerebrovascular Diseases	
INDONESIA (2)	1992	Circulation System Diseases	Tuberculosis	Lower Respiratory Tract Infection	Diarrhoea	
JAPAN (3)	1991	Malignant Neoplasms	Diseases of Heart	Cerebrovascular Diseases	Pneumonia and Bronchitis	
MALAYSIA (4) a)	Peninsular Malaysia	1992	Heart Diseases and Diseases of Pulmonary Circulation	Certain Condition Originating in the Perinatal Period	Accidents	Cerebrovascular Diseases
	Sabah	1992	Septicemia	Certain Condition Originating in the Perinatal Period	Heart Diseases and Diseases of Pulmonary Circulation	Malignant Neoplasm
	Sarawak	1992	Heart Diseases and Diseases of Pulmonary Circulation	Certain Condition Originating in the Perinatal Period	Septicemia	Malignant Neoplasm
PHILIPPINES (5)	1990	Diseases of Heart	Pneumonia	Diseases of the Vascular System	Tuberculosis, All Forms	
SINGAPORE (6)	1991	Cancer	Heart Diseases	Cerebrovascular Diseases	Pneumonia	
THAILAND (7) b)	1991	Diseases of Pulmonary Circulation and Other Forms of Heart Diseases	Other Accidents Including Late Effect	Malignant Neoplasm of Other and Unspecified Sites	Diseases of the Digestive System Other than Oral Cavity, Salivary Glands and Jaws	

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

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

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

5	6	7	8	9	10
Pneumonia	Hypertensive Diseases	Congenital Anomalies	Conditions Originating in the Perinatal Period	Septicemia	Diabetes Mellitus
Periode Perinatal Diseases	Gastroenteritis	Other Infectious Diseases	Bronchitis, Emphysema, and Asthma	Trauma, Poisoning, and Accidents	Neoplasms
Accidents, Poisoning and Violence	Suicide	Nephritis, Nephrotic Syndrome & Nephrosis	Chronic Liver Diseases & Cirrhosis of Liver	Hypertensive Diseases	Diabetes Mellitus
Septicemia	Malignant Neoplasms	Nephritis, Nephrotic Syndrome and Nephrosis	Congenital Anomalies	Symptoms, Signs and Ill-defined Conditions	Pneumonia
Pneumonia	Cerebrovascular Diseases	Accidents	Tuberculosis	Nephritis, Nephrotic Syndrome and Nephrosis	Symptoms, Signs and Ill-defined Conditions
Cerebrovascular Diseases	Accidents	Symptoms, Signs and Ill-defined Conditions	Pneumonia	Nephritis, Nephrotic Syndrome and Nephrosis	Congenital Anomalies
Malignant Neoplasms	Diarrheal Diseases	Septicemia	Nephritis, Nephrotic Syndrome, Nephrosis	Accidents	Measles
Accidents	Diabetes Mellitus	Nephritis and Nephrosis	Congenital Anomalies	Bronchitis, Emphysema and Asthma	Septicemia
Transport Accidents	Diseases of the Respiratory System Other than the Upper Respiratory Tract	Cerebrovascular Diseases	Malignant Neoplasm of Digestive Organs and Peritoneum	Diseases of Nervous System	Homicide and Injury Purposely Inflicted by Other Persons

[Brunei Darussalam]

4 Trends in the Leading Causes of Death (1)

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

Source : Ministry of Health, Brunei

[Indonesia]

4 Trends in the Leading Causes of Death (2)

Year		1972	1980	1986	1992
Order					
No.1	Cause of Death	Diarrhoea	Lower Respiratory Tract Infection	Diarrhoea	Circulation System Diseases
	Death Rate per 100,000 Population	425.7	146	84.5	68.1
No.2	Cause of Death	Lower Respiratory Tract Infection	Diarrhoea	Tuberculosis	Tuberculosis
	Death Rate per 100,000 Population	331.1	137.9	60.2	40.6
No.3	Causes of Death	Tuberculosis	Cardio-vascular Diseases	Diphtheria, Measles & Cough	Lower Respiratory Tract Infection
	Death Rate per 100,000 Population	165.6	73	53	37.9
No.4	Cause of Death	Cardiovascular Disorder & Nervous System	Tuberculosis	Tetanus	Diarrhoea
	Death Rate per 100,000 Population	141.9	61.7	42.1	30.8
No.5	Cause of Death	Tetanus	Tetanus	Malaria	Perinatal Diseases
	Death Rate per 100,000 Population	141.9	47.9	23.9	29.5

Source : Household Health Survey in Indonesia

[Japan]

4 Trends in the Leading Causes of Death (3)

Year		1899	1920	1930	1940	1950	1960	1970	1980	1985	1990	1991
Order												
No.1	Cause of Death	Pneumonia and Bronchitis	Pneumonia and Bronchitis	Gastro-enteritis	Tuber-culosis	Tuber-culosis	Cerebro-vascular Diseases	Cerebro-vascular Diseases	Cerebro-vascular Diseases	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms
	Death Rate per 100,000 Population	206.1	408.6	221.4	212.9	146.4	160.7	175.8	139.5	156.1	177.2	181.7
No.2	Cause of Death	Cerebro-vascular Diseases	Gastro-enteritis	Pneumonia and Bronchitis	Pneumonia and Bronchitis	Cerebro-vascular Diseases	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms	Diseases of Heart	Diseases of Heart	Diseases of Heart
	Death Rate per 100,000 Population	170.5	254.2	200.1	185.8	127.1	100.4	116.3	139.1	117.3	134.8	137.2
No.3	Cause of Death	Tuber-culosis	Tuber-culosis	Tuber-culosis	Cerebro-vascular Diseases	Pneumonia and Bronchitis	Diseases of Heart	Diseases of Heart	Diseases of Heart	Cerebro-vascular Diseases	Cerebro-vascular Diseases	Cerebro-vascular Diseases
	Death Rate per 100,000 Population	155.7	223.7	185.6	177.7	93.2	73.2	86.7	106.2	112.2	99.4	96.2
No.4	Cause of Death	Gastro-enteritis	Influenza	Cerebro-vascular Diseases	Gastro-enteritis	Gastro-enteritis	Pneumonia and Bronchitis	Accidents, Poisoning & Violence	Pneumonia and Bronchitis	Pneumonia and Bronchitis	Pneumonia and Bronchitis	Pneumonia and Bronchitis
	Death Rate per 100,000 Population	149.7	193.7	162.8	159.2	82.4	58	42.5	33.7	42.7	60.7	62.0
No.5	Cause of Death	Senility	Cerebro-vascular Diseases	Senility	Senility	Malignant Neoplasms	Accidents, Poisoning & Violence	Pneumonia and Bronchitis	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence
	Death Rate per 100,000 Population	127.2	157.6	118.8	124.5	77.4	49.3	34.1	25.1	24.6	26.9	27.9

Source : Ministry of Health and Welfare

[Peninsular Malaysia]

4 Trends in the Leading Causes of Death (4)

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

Source : *Annual Report-1980, 1985-1991 of Ministry of Health Malaysia*

[Philippines]

4 Trends in the Leading Causes of Death (5)

Year		1960	1965	1970	1975	1980	1985	1986	1987	1988	1989	1990
Order												
No.1	Cause of Death	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Diseases of Heart
	Death Rate per 100,000 Population	100.4	83.4	118.2	102	93.6	96.7	90.4	91.9	80.8	77.0	74.4
No.2	Cause of Death	Tuberculosis (All Forms)	Respiratory Tuberculosis	Tuberculosis (All Forms)	Tuberculosis (All Forms)	Diseases of Heart	Diseases of Heart	Diseases of Heart	Diseases of Heart	Diseases of Heart	Diseases of Heart	Pneumonia
	Death Rate per 100,000 Population	92.1	83.4	80.1	69.2	60.8	66.3	69.9	67.7	69.1	74.6	66.3
No.3	Cause of Death	Gastro-enteritis & Colitis	Gastro-enteritis & Colitis	Diseases of Vascular System	Diseases of Heart	Tuberculosis (All Forms)	Tuberculosis (All Forms)	Tuberculosis (All Forms)	Diseases of Vascular System	Diseases of Vascular System	Diseases of Vascular System	Diseases of Vascular System
	Death Rate per 100,000 Population	60.5	46	35.8	56.6	59.6	57.9	54.6	52.1	53.1	56.1	54.2
No.4	Cause of Death	Bronchitis	Bronchitis	Gastro-enteritis & Colitis	Diseases of Vascular System	Diseases of Vascular System	Diseases of Vascular System	Diseases of Vascular System	Tuberculosis (All Forms)	Tuberculosis (All Forms)	Tuberculosis (All Forms)	Tuberculosis (All Forms)
	Death Rate per 100,000 Population	57.2	43.1	35	31.8	43.8	49.7	52.5	50.0	46.0	43.8	39.1
No.5	Cause of Death	Beri-beri	Beri-beri	Diseases of Heart	Malignant Neoplasms	Diarrhoea	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms
	Death Rate per 100,000 Population	54.4	32.8	34	29.4	33.2	33.2	32.6	35.5	36.1	36.5	35.7

Source : *Philippine Health Statistics, 1960-1990*, Health Intelligence Service

[Singapore]

4 Trends in the Leading Causes of Death (6)

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

Source : National Registration Department

Note : a) Rates refer to Singapore residents only

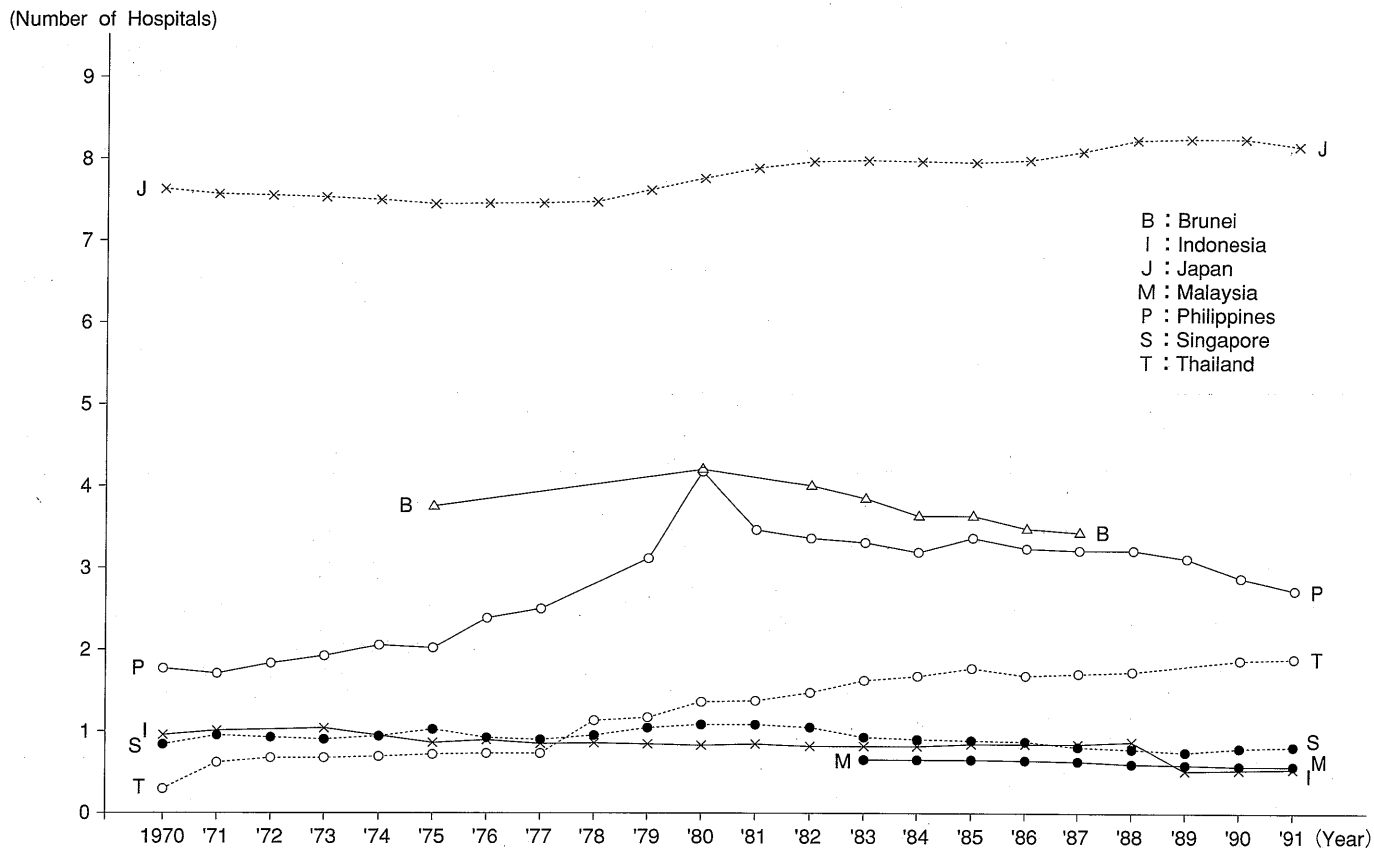
[Thailand]

4 Trends in the Leading Causes of Death (7)

Year		1930	1940	1950	1960	1970	1980	1985	1987	1988	1989	1990	1991
Order													
No.1	Cause of Death	Malaria	Malaria	Malaria	Gastro-enteritis	Accidents	Accidents	Diseases of Heart	Diseases of Pulmonary Circulation and Other Forms of Heart Diseases				
	Death Rate per 100,000 Population	342.4	277.8	195	38.7	27.2	35.9	36.4	40.3	42.1	47.5	49.6	52.5
No.2	Causes of Death	Gastro-enteritis	Gastro-enteritis	T.B. of Respiratory System	T.B. of Respiratory System	T.B. of Respiratory System	Diseases of Heart	Accidents and Poisoning	Diseases of Digestive System Other than Oral Cavity, Salivary Gland and Jaws		Other Accident Including Late Effect		
	Death Rate per 100,000 Population	159.8	168.8	65.5	34.7	20.8	31.4	28.9	19.8	18.7	21.5	25.3	25.8
No.3	Cause of Death	T.B. of Respiratory System	Dysentery	Gastro-enteritis	Pneumonia	Diarrhoea	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms of Other and Unspecified Sites				
	Death Rate per 100,000 Population	79.2	110	66.1	32.5	17.6	23.6	27	17.8	18.7	20.2	22.0	21.9
No.4	Cause of Death	Dysentery	T.B. of Respiratory System	Pneumonia	Malaria	Diseases of Heart	T.B. of Respiratory System	T.B. of Respiratory System	Other Accident Including Late Effect		Diseases of Digestive System Other than Oral Cavity, Salivary Glands and Jaws		
	Death Rate per 100,000 Population	74.3	80.9	39.4	30.2	15.3	14.3	10.3	16.4	18.7	19.1	18.4	18.5
No.5	Cause of Death	Pneumonia	Pneumonia	Dysentery	Diseases of Heart	Pneumonia	Pneumonia	Pneumonia	Diseases of Respiratory System Other than the Upper Respiratory Tract			Transport Accidents	
	Death Rate per 100,000 Population	22	48.7	32.8	19	14.8	10	7.4	12.6	12.6	13.8	15.2	18.3

Source : Ministry of Public Health

Fig.3 Recent Trends in Number of Hospitals (Per 100,000 Population)



5 Deaths and Death Rates by Causes (ICD-9) (1)

	Basic Tabulation List				01-07		010		011		012, 014	
	Year	Sex	All Causes		Infectious and Parasitic Diseases		Cholera		Typhoid and Paratyphoid Fevers		Dysentery (Amoebiasis and Bacillary)	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
(1) BRUNEI	1992	T	887	331.2	31	11.6	—	—	—	—	—	—
		M	534	377.9	22	15.6	—	—	—	—	—	—
		F	352	278.3	9	7.1	—	—	—	—	—	—
(2) a) INDONESIA	1991	T	5,830						99			
		M	2,916						49			
		F	2,914						50			
(3) JAPAN	1991	T	829,797	674.1	12,483	10.1	—	—	1	0.0	3	0.0
		M	450,344	745.3	7,356	12.2	—	—	—	—	3	0.0
		F	379,453	605.4	5,127	8.2	—	—	1	0.0	—	—
(4) a) Peninsular Malaysia MALAYSIA Sabah Sarawak	1991	T	28,257	550.2	1,570	11.1	2	0.0	9	0.1	1	0.0
		T	3,849	214.9								
		T	3,869	234.7								
(5) PHILIPPINES	1990	T	313,890	505.9	46,163	74.4			1,040	1.7	594	1.0
		M	185,788	595.8	28,079	90.0			584	1.9	348	1.1
		F	128,102	415.0	18,084	58.6			456	1.5	246	0.8
(6) b) SINGAPORE	1991	T	13,876 c)	467.4	321	10.6	1	0.0	1	0.0	—	—
		M	7,840	517.6	179	11.4	1	0.1	1	0.0	—	—
		F	6,034	418.0	142	9.8	—	—	—	—	—	—
(7) THAILAND	1991	T	264,350	466.5	12,125	21.4	51	0.1	96	0.2	24	0.0
		M	155,198	547.7	7,297	25.7	23	0.1	55	0.2	17	0.1
		F	109,152	385.4	4,828	17.0	28	0.1	41	0.1	7	0.0

Source : (1) Ministry of Health

(2) Directorate General of Medical Care, Ministry of Health
Based on 10-day sample of discharges from hospital for each quarter

(3) *Vital Statistics Japan*, Ministry of Health and Welfare

(4) *Vital Statistics Peninsular Malaysia, Sabah & Sarawak*

(5) *Philippine Health Statistics*, Department of Health

(6) *Report on Registration of Birth and Deaths*, National Registration Department

(7) Ministry of Public Health (official data)

Note : a) Medical certified deaths only

b) Rates refer to Singapore residents only

c) Includes unknown sex

(rate per 100,000 population)

013,015,016,019	020-021		022-025,029		033		034		036		037		038	
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
—	10	3.7	—	—	—	—	—	—	—	—	—	—	21	7.8
—	8	5.7	—	—	—	—	—	—	—	—	—	—	14	9.9
—	2	1.6	—	—	—	—	—	—	—	—	—	—	7	5.5
153	249	—	9	—	—	—	1	—	—	—	112	—	86	—
93	154	—	3	—	—	—	—	—	—	—	86	—	47	—
60	95	—	6	—	—	—	1	—	—	—	26	—	39	—
772 0.6	3,131 2.5	194 0.2	—	—	—	—	2 0.0	—	1 0.0	—	20 0.0	—	3,805 3.1	—
330 0.5	2,343 3.9	106 0.2	—	—	—	—	1 0.0	—	—	—	11 0.0	—	1,799 3.0	—
442 0.7	788 1.3	88 0.1	—	—	—	—	1 0.0	—	1 0.0	—	9 0.0	—	2,006 3.2	—
75 0.5	264 1.9	38 0.3	1 0.0	—	—	—	2 0.0	—	4 0.0	—	9 0.1	—	937 6.6	—
7 0.0	23,741 38.3	566 0.1	112 0.2	—	—	—	9 0.0	—	192 0.3	—	989 1.6	—	5,835 9.4	—
4 0.0	15,264 48.9	327 1.0	59 0.2	—	—	—	2 0.0	—	113 0.4	—	695 2.2	—	3,130 10.0	—
3 0.0	8,477 27.5	239 0.8	53 0.2	—	—	—	7 0.0	—	79 0.3	—	294 1.0	—	2,705 8.8	—
24 0.8	96 3.3	8 0.2	—	—	—	—	—	—	—	—	—	—	142 4.9	—
10 0.6	66 4.6	8 0.4	—	—	—	—	—	—	—	—	—	—	64 4.1	—
14 1.0	30 1.8	—	—	—	—	—	—	—	—	—	—	—	78 5.6	—
1,271 2.2	3,555 6.3	43 0.1	29 0.1	—	—	—	3 0.0	—	3 0.0	—	202 0.4	—	4,116 7.3	—
695 2.5	2,432 8.6	24 0.1	18 0.1	—	—	—	2 0.0	—	3 0.0	—	125 0.4	—	2,213 7.8	—
576 2.0	1,123 4.0	19 0.1	11 0.0	—	—	—	1 0.0	—	—	—	77 0.3	—	1,903 6.7	—

5 Deaths and Death Rates by Causes (ICD-9) (2)

	Year	Sex	030-032,035,039		040		042		046		047	
			Other Bacterial Diseases		Acute Poliomyelitis		Measles		Viral Hepatitis		Rabies	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1992	T	—	—	—	—	—	—	—	—	—	—
		M	—	—	—	—	—	—	—	—	—	—
		F	—	—	—	—	—	—	—	—	—	—
INDONESIA	1991	T	21	—	—	—	2	—	85	—	—	—
		M	14	—	—	—	—	42	—	—	—	—
		F	7	—	—	—	2	43	—	—	—	—
JAPAN	1991	T	60	0.0	—	—	39	0.0	1,416	1.2	—	—
		M	29	0.0	—	—	17	0.0	838	1.4	—	—
		F	31	0.0	—	—	22	0.0	578	0.9	—	—
MALAYSIA Peninsular Malaysia Sabah Sarawak	1991	T	17	0.1	—	—	3	0.0	18	0.1	1	0.0
		T	—	—	—	—	—	—	—	—	—	—
		T	—	—	—	—	—	—	—	—	—	—
PHILIPPINES	1990	T	89	0.1	23	0.0	3,499	5.6	931	1.5	491	0.8
		M	44	0.1	12	0.0	1,831	5.9	618	2.0	339	1.1
		F	45	0.1	11	0.0	1,668	5.4	313	1.0	152	0.5
SINGAPORE	1991	T	6	0.2	—	—	—	—	11	0.3	—	—
		M	4	0.3	—	—	—	—	7	0.4	—	—
		F	2	0.1	—	—	—	—	4	0.3	—	—
THAILAND	1991	T	2	0.0	16	0.0	19	0.0	—	—	161	0.3
		M	1	0.0	8	0.0	12	0.0	—	—	101	0.4
		F	1	0.0	8	0.0	7	0.0	—	—	60	0.2

(rate per 100,000 population)

(184)	065.4 ^{a)}	061 ^{a)}	044,045	041,043,048,049	052	06	Rest of 01-07
AIDS (HIV)	Dengue Haemorrhagic Fever	Dengue	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
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
				85	48	—	1
				42	24	—	1
				43	24	—	—
4 0.0	—	—	10 0.0	368 0.3	1 0.0	35 0.0	2,373 1.9
2 0.0	—	—	6 0.0	176 0.3	1 0.0	24 0.0	1,523 2.5
2 0.0	—	—	4 0.0	192 0.3	—	11 0.0	850 1.4
—	—	26 0.2	1 0.0	48 0.3	27 0.2	3 0.0	78 0.6
	353 0.6		18 0.0	154 0.2	913 1.5	3 0.0	173 0.3
	179 0.6		10 0.0	88 0.3	552 1.8	1 0.0	109 0.4
	174 0.6		8 0.0	66 0.2	361 1.2	2 0.0	64 0.2
8 0.3	6 0.2	1 0.0	—	4 0.1	6 0.1	3 0.1	12 0.4
8 0.6	2 0.1	1 0.1	—	1 0.0	4 0.1	3 0.2	7 0.5
—	4 0.3	—	—	3 0.2	2 0.1	—	5 0.4
57 0.1	364 0.6	—	—	7 0.0	1,174 2.1	8 0.0	981 1.7
48 0.2	204 0.7	—	—	3 0.0	781 2.8	4 0.0	576 2.0
9 0.0	160 0.6	—	—	4 0.0	393 1.4	4 0.0	405 1.4

Note : a) Four-digit Subcategories

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

	Year	Sex	08-14		091		093		094		095	
			Malignant Neoplasms		Malignant Neoplasm of Stomach		Malignant Neoplasm of Colon		Malignant Neoplasm of Rectum, Rectosigmoid Junction and Anus		Malignant Neoplasm of Liver Specified as Primary	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1992	T	100	37.3	10	3.7	—	—	3	1.1	7	2.6
		M	53	37.5	6	4.2	—	—	3	2.1	6	4.2
		F	47	37.2	4	3.2	—	—	—	—	1	0.8
INDONESIA	1991	T	281	—	4	—	14	—	6	—	43	—
		M	167	—	2	—	9	—	4	—	33	—
		F	144	—	2	—	5	—	2	—	10	—
JAPAN	1991	T	230,551	187.3	47,896	38.9	16,267	13.2	9,516	7.7	24,653	20.0
		M	138,282	228.8	30,296	50.1	8,236	13.6	5,693	9.4	18,172	30.1
		F	92,269	147.2	17,600	28.1	8,031	12.8	3,823	6.1	6,482	10.3
MALAYSIA Peninsular Malaysia Sabah Sarawak	1991	T	3,277	23.2	203	1.4	149	1.1	99	0.7	259	1.8
		T	—	—	—	—	—	—	—	—	—	—
		T	—	—	—	—	—	—	—	—	—	—
PHILIPPINES	1990	T	22,085	35.6	1,395	2.2	320	0.5	465	0.7	—	—
		M	11,840	38.0	822	2.6	164	0.5	267	0.9	—	—
		F	10,245	33.2	573	1.9	156	0.5	198	0.6	—	—
SINGAPORE	1991	T	3,361	116.5	357	12.4	294	10.2	150	5.2	97	3.4
		M	1,991	137.4	220	15.5	147	10.1	95	6.5	78	5.4
		F	1,370	95.0	137	9.5	147	10.3	55	4.0	19	1.3
THAILAND	1991	T	23,332	41.2	384	0.7	723	1.3	15	0.0	4,123	7.3
		M	13,573	47.9	214	0.8	433	1.5	5	0.0	2,893	10.2
		F	9,759	34.5	170	0.6	290	1.0	10	0.0	1,230	4.3

(per 100,000 population)

101		113		120		122		Rest of (08-13)		141		140, 149		15-17	
Malignant Neoplasm of Trachea, Bronchus and Lung		Malignant Neoplasm of Female Breast		Malignant Neoplasm of Cervix Uteri		Malignant Neoplasm of Uterus, Other and Unspecified		Malignant Neoplasm of Other Sites		Leukemia		Other Malignant Neoplasm of Lymphatic and Haemopoietic Tissue		Benign Neoplasm, Carcinoma in Situ, Other and Unspecified Neoplasms	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
25	9.3	4	1.5	8	3.0	—		32	11.9	6	2.2	5	1.9	5	1.9
16	11.3	..		..		..		16	11.3	4	2.8	2	1.4	3	2.1
9	7.1	4	3.2	8	6.3	—		16	12.6	2	1.6	3	2.4	2	1.6
33		17		12		2		71		37		21		63	
26		..		..		..		37		24		16		36	
7		17		12		2		34		13		5		27	
38,199	31.0	6,309	5.1	1,873	1.5	2,737	2.2	62,831	51.2	5,585	4.5	5,241	4.3	7,123	5.8
27,968	46.3	..		..		..		34,984	58.1	3,190	5.3	3,156	5.2	3,928	6.5
10,231	16.3	6,309	10.1	1,873	3.0	2,737	4.4	27,847	44.6	2,395	3.8	2,085	3.3	3,195	5.1
657	4.7	226	1.6	119	0.8	26	0.2	1,130	8.0	260	1.8	149	1.1	164	1.2
3,496	5.6	1,631	2.6	384	0.6	3,891	12.6	8,148	13.1	1,494	2.4	3,045	4.9	94	0.2
2,533	8.1	..		..		..		5,166	16.6	716	2.3	2,512	8.1	43	0.1
963	3.1	1,631	5.3	384	1.2	3,891	12.6	2,982	9.7	778	2.5	533	1.7	51	0.2
812	28.2	205	7.1	82	2.8	34	1.2	1,128	39.2	101	3.2	101	3.3	44	1.5
592	41.2	..		..		..		739	51.1	63	4.1	57	3.6	18	1.1
220	15.1	205	14.4	82	5.7	34	2.4	389	27.0	38	2.3	44	3.0	26	1.9
1,876	3.3	307	0.5	136	0.2	548	1.0	14,330	25.3	723	1.3	167	0.3	1	0.0
1,335	4.7	..		..		..		8,224	29.0	378	1.3	91	0.3	1	0.0
541	1.9	307	1.1	136	0.5	548	1.9	6,106	21.6	345	1.2	76	0.3	—	

5 Deaths and Death Rates by Causes (ICD-9) (4)

	Year	Sex	181		180, 182, 183, 189		19		200		209	
			Diabetes Mellitus		Other Endocrine and Metabolic Diseases		Nutritional Deficiencies		Anemias		Other Diseases of Blood and Blood-forming Organs	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1992	T	14	5.2	2	0.7	3	1.1	3	1.1	2	0.7
		M	6	4.2	—	—	3	2.1	1	0.7	2	1.4
		F	8	6.3	2	1.6	—	—	2	1.6	—	—
INDONESIA	1991	T	98	—	17	—	5	—	41	—	3	—
		M	50	—	11	—	2	—	22	—	2	—
		F	48	—	6	—	3	—	19	—	1	—
JAPAN	1991	T	9,634	7.8	2,189	1.8	534	0.4	1,580	1.3	2,223	1.8
		M	4,633	7.7	1,040	1.7	289	0.5	681	1.1	1,144	1.9
		F	5,001	8.0	1,149	1.8	245	0.4	899	1.4	1,079	1.7
MALAYSIA Peninsular Malaysia Sabah Sarawak	1991	T	699	4.9	111	0.8	27	0.2	83	0.6	79	0.6
		T	—	—	—	—	—	—	—	—	—	—
		T	—	—	—	—	—	—	—	—	—	—
PHILIPPINES	1990	T	3,559	5.7	3,836	6.2	4,094	6.6	2,406	3.9	417	0.7
		M	1,669	5.3	2,183	7.0	2,112	6.8	1,207	3.9	226	0.7
		F	1,890	6.1	1,653	5.4	1,982	6.4	1,199	3.9	191	0.6
SINGAPORE	1991	T	320	11.0	23	0.8	8	0.3	20	0.7	20	0.7
		M	128	8.9	10	0.6	2	0.1	7	0.5	10	0.7
		F	192	13.3	13	1.0	6	0.4	13	0.9	10	0.7
THAILAND	1991	T	2,998	5.3	260	0.5	230	0.4	240	0.4	117	0.2
		M	1,288	4.5	150	0.5	148	0.5	114	0.4	68	0.2
		F	1,710	6.0	110	0.4	82	0.3	126	0.4	49	0.2

(rate per 100,000 population)

21		220		221-225 229, 23, 24		25-30		25		26		270		279	
Mental Disorders		Meningitis		Other Diseases of Nervous System and Sense Organs		Diseases of Circulatory System		Rheumatic Fever and Rheumatic Heart Diseases		Hypertensive Disease		Acute Myocardial Infarction		Other Ischemic Heart Diseases	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1	0.4	1	0.4	2	0.7	231	86.3	1	0.4	28	10.5	72	26.9	25	9.3
—	—	1	0.7	—	—	140	99.1	1	0.7	18	12.7	45	31.8	22	15.6
1	0.8	—	—	2	1.6	91	71.9	—	—	10	7.9	27	21.3	3	2.4
14	—	108	—	249	—	—	—	13	—	68	—	82	—	38	—
8	—	70	—	127	—	—	—	4	—	34	—	61	—	24	—
6	—	38	—	122	—	—	—	9	—	34	—	21	—	14	—
3,108	2.5	465	0.4	6,029	4.9	304,542	247.4	1,402	1.1	9,083	7.4	31,866	25.9	19,604	15.9
1,359	2.2	256	0.4	3,288	5.4	147,338	243.8	463	0.8	3,410	5.6	17,705	29.3	9,519	15.8
1,749	2.8	209	0.3	2,741	4.4	157,204	250.8	939	1.5	5,673	9.1	14,161	22.6	10,085	16.1
51	0.4	126	0.9	316	2.2	8,540	60.4	137	1.0	116	0.8	2,778	19.7	623	4.4
355	0.6	2,335	3.8	1,473	2.4	24,787	39.9	2,097	3.4	16,169	26.1	13,999	22.6	5,432	8.8
272	0.9	1,311	4.2	846	2.7	13,581	43.5	1,003	3.2	9,216	29.6	9,006	28.9	2,783	8.9
83	0.3	1,024	3.3	627	2.0	11,206	36.3	1,094	3.5	6,953	22.5	4,993	16.2	2,649	8.6
5	0.1	14	0.4	103	3.6	5,070	173.0	59	2.1	257	9.1	1,667	56.0	848	29.5
2	0.1	11	0.6	55	3.9	2,650	177.0	17	1.1	115	8.1	990	65.2	468	32.0
3	0.1	3	0.2	48	3.4	2,420	168.9	42	3.0	142	10.1	677	46.7	380	26.9
738	1.3	394	0.7	5,452	9.6	43,295	76.4	360	0.6	2,753	4.9	338	0.6	565	1.0
649	2.3	270	1.0	3,292	11.6	26,460	93.4	180	0.6	1,642	5.8	206	0.7	352	1.2
89	0.3	124	0.4	2,160	7.6	16,835	59.4	180	0.6	1,111	3.9	132	0.5	213	0.8

5 Deaths and Death Rates by Causes (ICD-9) (5)

	Year	Sex	28		29		300		301-305, 309		310-312	
			Other Heart Diseases		Cerebrovascular Disease		Atherosclerosis		Other Disease of Circulatory System		Acute Upper Respiratory Infection	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1992	T	48	17.9	51	19.0	1	0.4	5	1.9	1	0.4
		M	25	17.7	26	18.4	1	0.7	2	1.4	—	—
		F	23	18.2	25	19.8	—	—	3	2.4	1	0.8
INDONESIA	1991	T			578		—		14		14	
		M			319		—		9		6	
		F			259		—		5		8	
JAPAN	1991	T	114,691	93.2	118,448	96.2	2,037	1.7	5,405	4.4	956	0.8
		M	55,290	91.5	55,740	92.2	864	1.4	3,257	5.4	432	0.7
		F	59,401	94.8	62,708	100.0	1,173	1.9	2,148	3.4	524	0.8
MALAYSIA Peninsular Malaysia Sabah Sarawak	1991	T	2,254	16.0	2,402	17.0	6	0.1	173	1.2	2	0.0
		T										
		T										
PHILIPPINES	1990	T	21,829	35.2	17,517	28.2	1,899	3.1	593	1.0	76	0.1
		M	12,008	38.5	10,191	32.7	893	2.9	401	1.3	39	0.1
		F	9,821	31.8	7,326	23.7	1,006	3.3	192	0.6	37	0.1
SINGAPORE	1991	T	405	12.7	1,700	58.9	23	0.8	111	3.6	2	0.1
		M	202	11.6	765	52.9	17	1.1	76	4.9	—	—
		F	203	14.0	935	65.5	6	0.4	35	2.3	2	0.1
THAILAND	1991	T	29,746	52.5	6,282	11.1	1	0.0	3,250	5.7	154	0.3
		M	18,026	63.6	3,887	13.7	1	0.0	2,166	7.6	97	0.3
		F	11,720	41.4	2,395	8.5	—	—	1,084	3.8	57	0.2

(rate per 100,000 population)

320		321		322		323		313-315, 319 324-327, 329		341		347		33, 340, 342-346 348, 349	
Acute Bronchitis and Bronchiolitis		Pneumonia		Influenza		Bronchitis, Chronic and Unspecified, Emphysema and Asthma		Other Diseases of Respiratory System		Ulcer of Stomach and Duodenum		Chronic Liver Disease and Cirrhosis		Other Diseases of Digestive System	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
—		33	12.3	—		14	5.2	35	13.1	2	0.7	—		18	6.7
—		13	9.2	—		11	7.8	23	16.3	2	1.4	—		13	9.2
—		20	15.8	—		3	2.4	12	9.5	—		—		5	4.0
11		304		—		69		119		15		197		198	
6		161		—		47		75		10		135		138	
5		143		—		22		44		5		62		60	
1,508	1.2	70,057	56.9	100	0.1	15,180	12.3	13,937	11.4	3,460	2.8	16,914	13.7	18,063	14.7
706	1.2	39,843	65.9	44	0.1	9,846	16.3	8,843	14.7	1,855	3.1	11,438	18.9	8,959	14.8
802	1.3	30,214	48.2	56	0.1	5,334	8.5	5,094	8.2	1,605	2.6	5,476	8.7	9,104	14.5
6	0.0	707	5.0	—		303	2.1	1,269	9.0	90	0.6	272	1.9	804	5.7
932	1.5	41,238	66.5	605	1.0	7,693	12.4	7,139	11.5	5,280	8.5	2,897	4.7	4,144	6.7
516	1.7	22,216	71.2	335	1.1	4,917	15.8	3,750	12.0	3,656	11.7	2,290	7.3	2,978	9.5
416	1.3	19,022	61.6	270	0.9	2,776	9.0	3,389	11.0	1,624	5.3	607	2.0	1,166	3.8
3	0.1	1,285	43.9	1	0.0	156	5.0	842	28.9	81	2.7	119	4.0	206	7.0
3	0.2	648	43.1	1	0.1	90	5.9	613	41.7	50	3.3	85	5.8	126	8.2
—		637	44.8	—		66	4.1	229	15.8	31	2.1	34	2.2	80	5.8
1	0.0	3,984	7.0	166	0.3	1,091	1.9	2,666	4.7	643	1.1	5,382	9.5	4,463	7.9
1	0.0	2,516	8.9	96	0.3	727	2.6	1,739	6.1	418	1.5	3,918	13.8	2,966	10.5
—		1,468	5.2	70	0.2	364	1.3	927	3.3	225	0.8	1,464	5.2	1,497	5.3

5 Deaths and Death Rates by Causes (ICD-9) (6)

	Year	Sex	350		351-353, 359, 36, 37		38		39		40, 41	
			Nephritis, Nephrotic Syndrome and Nephrosis		Other Diseases of Genito-urinary System		Abortion		Other Direct Obstetric Causes		Indirect Obstetric Causes	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1992	T	12	4.5	3	1.1	—	—	—	—	—	—
		M	7	5.0	2	1.4	..	..	..	..	..	..
		F	5	4.0	1	0.8	—	—	—	—	—	—
INDONESIA	1991	T	165		27		3		40		4	
		M	99		18		..		..		..	
		F	66		9		3		40		4	
JAPAN	1991	T	17,007	13.8	2,368	1.9	3	0.0	81	0.1	13	0.0
		M	8,282	13.7	924	1.5	..		..		..	
		F	8,725	13.9	1,444	2.3	3	0.0	81	0.1	13	0.0
MALAYSIA Peninsular Malaysia Sabah Sarawak	1991	T	933	6.6	118	0.8	8	0.1	51	0.4	—	
		T										
		T										
PHILIPPINES	1990	T	5,151	8.3	838	1.4	103	0.2	1,204	1.9	—	
		M	3,039	9.7	464	1.5	..		..		..	
		F	2,112	6.8	374	1.2	103	0.3	1,204	3.9	—	
SINGAPORE	1991	T	246	8.5	123	4.2	2	0.1	—		—	
		M	115	8.0	41	2.6	..		..		..	
		F	131	9.2	82	5.9	2	0.1	—		—	
THAILAND	1991	T	4,511	8.0	465	0.8	40	0.1	144	0.3	2	0.0
		M	2,417	8.5	261	0.9	..		..		..	
		F	2,094	7.4	204	0.7	40	0.1	144	0.5	2	0.0

(rate per 100,000 population)															
42		43		44		45		465		460-464, 466 467, 469		E47-E56		E47	
Diseases of Skin and Subcutaneous Tissue		Diseases of Musculo- skeletal System and Connective Tissue		Congenital Anomalies		Certain Conditions Originating in the Perinatal Period		Senility without Mention of Psychosis		Signs, Symptoms and Other Ill- defined Conditions		Accidents and Adverse Effects		Transport Accidents	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
—		5	1.9	25	9.7	22	8.2	113	44.2	126	47.1	82	30.6	37	13.8
—		1	0.7	12	8.5	13	9.2	55	38.9	78	55.2	71	50.2	31	21.9
—		4	3.2	13	10.3	9	7.1	58	45.8	48	37.9	11	8.7	6	4.7
12		14		21						167		443		193	
6		9		11						132		343		153	
6		5		10						135		100		40	
671	0.5	3,375	2.7	3,585	2.9	1,633	1.3	23,200	18.8	6,961	5.7	56,362	45.8	15,754	12.8
237	0.4	854	1.4	1,838	3.0	916	1.5	7,676	12.7	3,908	6.5	37,529	62.1	11,409	18.9
434	0.7	2,521	4.0	1,747	2.8	717	1.1	15,524	24.8	3,053	4.9	18,833	30.0	4,345	6.9
91	0.6	91	0.6	897	6.3	1,791	12.7	1,211	8.6	734	5.2	4,309	30.5	1,558	11.0
324	0.5	487	0.8	2,742	4.4	15,578	25.1	11,207	18.1	9,334	15.0	639	1.0	2,974	4.8
161	0.5	296	1.0	1,588	5.1	9,142	29.3	4,773	15.3	5,795	18.6	513	1.6	2,065	6.6
163	0.5	191	0.6	1,154	3.7	6,436	20.9	6,434	20.8	3,539	11.5	126	0.4	909	2.9
25	0.9	50	1.7	164 a)	5.3	89	3.0	16	0.5	75	2.1	1,074	30.8	286	8.1
7	0.5	8	0.6	88	5.4	48	3.0	5	0.4	44	2.1	797	43.8	236	13.4
18	1.2	42	2.8	74	4.8	41	2.9	11	0.7	31	2.1	277	17.6	50	2.8
102	0.2	166	0.3	1,586	2.8	1,771	3.1	73,587	129.9	39,949	70.5	34,238	60.4	10,375	18.3
56	0.2	87	0.3	868	3.1	1,025	3.6	33,590	118.5	24,130	85.1	26,928	95.0	8,407	29.7
46	0.2	79	0.3	718	2.5	746	2.6	39,997	141.2	15,819	55.9	7,310	25.8	1,968	6.9

Note : a) Includes unknown sex

5 Deaths and Death Rates by Causes (ICD-9) (7)

	Year	Sex	E 48		E 50		E 51		E 521		E 49, E 520, E 522 E 529	
			Accidental Poisoning		Accidental Falls		Accidents Caused by Fire and Flames		Accidental Drowning and Submersion		All Other Accidents Including Late Effects	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1992	T	3	1.1	—	—	—	—	15	5.6	—	—
		M	2	1.4	—	—	—	—	15	10.6	—	—
		F	1	0.8	—	—	—	—	—	—	—	—
INDONESIA	1991	T	12	—	49	—	27	—	1	—	121	—
		M	9	—	43	—	15	—	1	—	93	—
		F	3	—	6	—	12	—	—	—	28	—
JAPAN	1991	T	493	0.4	4,530	3.7	1,190	1.0	3,310	2.7	9,675	7.9
		M	309	0.5	2,927	4.8	730	1.2	2,078	3.4	6,616	11.0
		F	184	0.3	1,603	2.6	460	0.7	1,232	2.0	3,059	4.9
MALAYSIA Peninsular Malaysia Sabah Sarawak	1991	T	6	0.0	547	3.9	70	0.5	5	0.0	141	1.0
		T	—	—	—	—	—	—	—	—	—	—
		T	—	—	—	—	—	—	—	—	—	—
PHILIPPINES	1990	T	78	0.1	506	0.8	52	0.1	2,527	4.1	639	1.0
		M	59	0.2	385	1.2	26	0.1	1,839	5.9	513	1.6
		F	19	0.1	121	0.4	26	0.1	688	2.2	126	0.4
SINGAPORE	1991	T	12	0.2	91	2.6	6	0.0	20	0.5	70	1.7
		M	11	0.4	71	3.8	4	0.0	16	0.8	56	2.5
		F	1	0.0	20	1.5	2	0.1	4	0.2	14	1.0
THAILAND	1991	T	331	0.6	331	0.6	154	0.3	3,108	5.5	11,544	20.4
		M	208	0.7	263	0.9	92	0.3	2,168	7.7	9,288	32.8
		F	123	0.4	68	0.2	62	0.2	940	3.3	2,256	8.0

(rate per 100,000 population)

E 53		E 54		E 55		E 56	
Drugs, Medicaments Causing Adverse Effects in Therapeutic Use		Suicide and Self-inflicted Injury		Homicide & Injury Inflicted by Other Persons		Other Violence	
Number	Rate	Number	Rate	Number	Rate	Number	Rate
—		1	0.4	—		23	8.6
—		1	0.7	—		19	13.4
—		—		—		4	3.2
2		7		7		—	
2		4		5		—	
—		3		2		—	
137	0.1	19,875	16.1	685	0.5	—	
66	0.1	12,477	20.6	398	0.7	—	
71	0.1	7,398	11.8	287	0.5	—	
3	0.0	23	0.2	32	0.2	1,871	13.2
		402	0.6	103	0.2	15,541	25.1
		278	0.9	91	0.3	14,150	45.4
		124	0.4	12	0.0	1,391	4.5
2	0.1	319	10.7	51	1.2	217	5.6
2	0.1	190	12.7	39	1.6	172	8.4
—		129	8.8	12	0.7	45	2.6
9	0.0	3,602	6.4	4,643	8.2	141	0.2
6	0.0	2,437	8.6	3,952	13.9	107	0.4
3	0.0	1,165	4.1	691	2.4	34	0.1

6 Morbidity Statistics(ICD-9)(1)

	ICD Categories	001	002	004, 006	003, 005	010-018	030
	Year	Cholera	Typhoid and Paratyphoid Fever	Amebiasis and Bacillary Dysentery	Food Poisoning (Bacterial)	Tuberculosis of All Forms	Leprosy
BRUNEI ⁽¹⁾	1992	—	9	7	30	183	3
INDONESIA ⁽²⁾	1991	62,512	249,168	599,990	2,404	603,003	20,414
JAPAN ⁽³⁾⁽⁴⁾⁽⁵⁾	1991	90	131	1,120	32,905	50,612	17
MALAYSIA ⁽⁶⁾		506	1,999	434	1,094	11,059	315
Peninsular Malaysia	1991	62	1,419	226	897	6,242	203
Sabah		399	426	87	181	3,141	92
Sarawak		45	154	121	16	1,676	20
PHILIPPINES ⁽⁷⁾	1990	—	15,720	—	—	149,738	2,827
SINGAPORE ⁽⁸⁾	1991	34	132	69	464	1,814	22
THAILAND ⁽⁹⁾	1991	—	9,567	89,018	60,550	21,321	556

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

(8) Ministry of the Environment and Ministry of Health
(9) Preliminary *Annual Summary 1991*, Division of
Epidemiology, Ministry of Public Health

032	052	070	071	084	487	033	036	037	055
Diphtheria	Chickenpox	Viral Hepatitis (A, B, Non-A, Non-B)	Rabies	Malaria	Influenza (Grippe)	Whooping Cough	Meningococcal Infection	Tetanus	Measles
—	1,265	21		23		—		—	64
2,506	—	71,915	3,108	1,660,193	2,490,379	34,560	—	8,105	116,656
2	238,752	a) 3,956	—	58	5,868	536	10	34	5,452
12	—	2,580	—	39,189	—	20	—	31	275
9	—	2,092	—	9,879	—	20	—	18	273
3	—	322	—	27,178	—	0	—	13	0
0	—	166	—	2,132	—	0	—	0	2
921	33,177	14,709	b) 326	73,625	544,768	4,135		2,286	42,938
1	17,930	501	—	267		2			216
53	26,451	18,018	159	92,260	62,164	295	17	717	26,996

Note : a) Cases treated in large hospitals only
b) Average annual cases

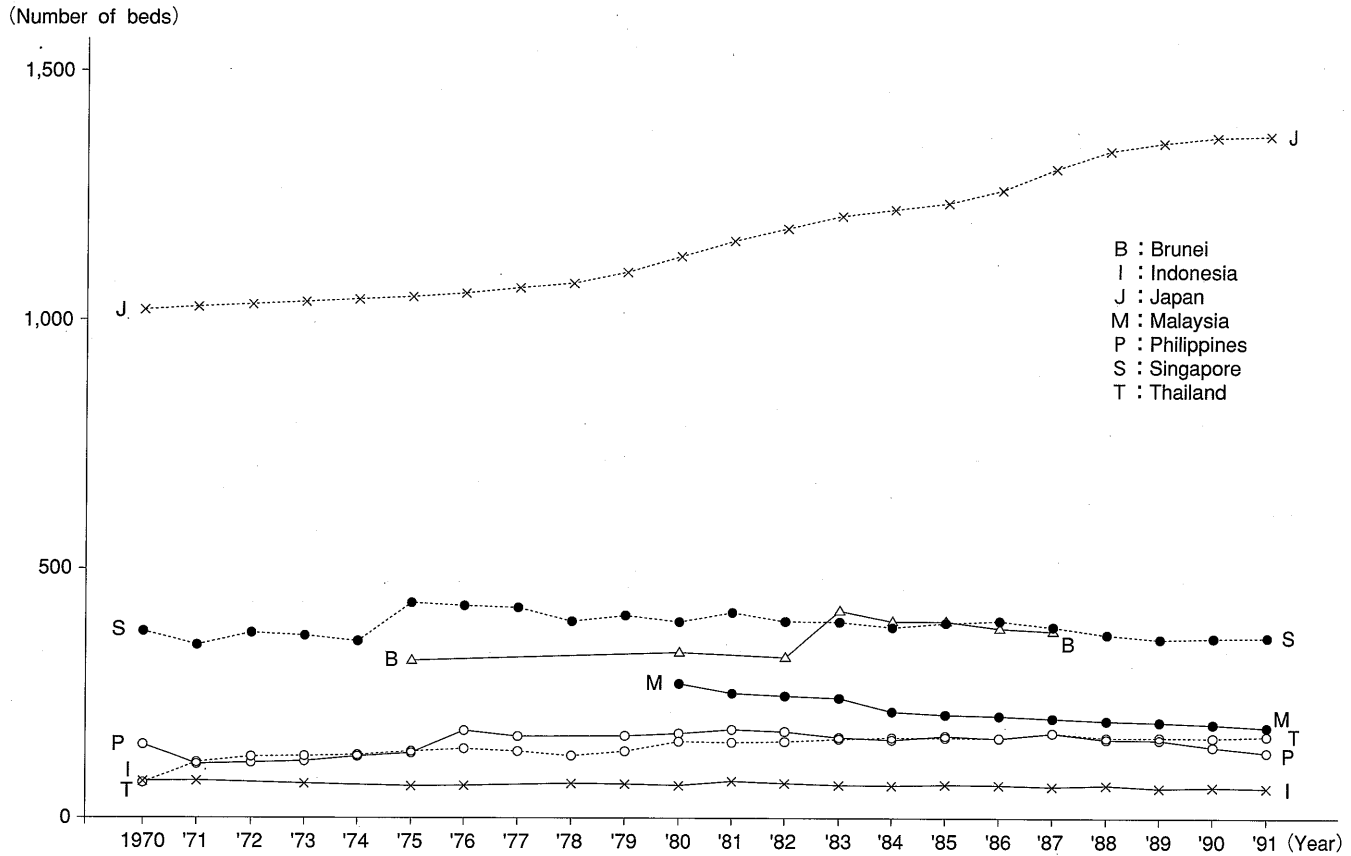
6 Morbidity Statistics (I C D - 9) (2)

		056	072	279.8	045	047-049 062-064	080, 081, 085	125	120	090-097	098	099
		Rubella	Mumps	AIDS (HIV)	Acute Polio- myelitis	Viral Meningitis & Enceph- alitis	Viral Haemor- rhagic Fever	Filariasis	Schisto- somiasis	Syphilis	Gonococcal Infections	Other Venereal Diseases
BRUNEI ⁽¹⁾	1992	8	33	—	—	13	—	21	—	15	85	12
INDONESIA ⁽²⁾	1991	—	—	18	1,523	—	21,120	1,901	—	4,054	37,004	—
JAPAN ^{(3) (4) (5)}	1991	65,641	3,674	38 (HIV 238)	—	24	22	1	3	1,494	5,567	34
MALAYSIA ⁽⁶⁾		—	—	14	—	24	—	—	—	2,027	4,008	c) 114
Peninsular Malaysia	1991	—	—	—	—	20	—	—	—	1,226	1,287	104
Sabah		—	—	—	—	—	—	—	—	93	1,395	1
Sarawak		—	—	—	—	4	—	—	—	710	1,326	9
PHILIPPINES ⁽⁷⁾	1990	—	—	d) 394	98	—	4,836	286	14,781	151	6,374	—
SINGAPORE ⁽⁸⁾	1991	51	636	12	—	1	2,179	—	—	731	3,196	2,618
THAILAND ⁽⁹⁾	1991	5,153	21,478	407 (ARC 394)	6	2,598	43,782	—	—	10,630	43,348	37,736

Note : c) Chancroid

d) Cumulative total as of April 1993

Fig.4 Recent Trends in Number of Beds (Per 100,000)



7 Notifiable Infectious Diseases

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

- Note: a) Infectious diarrhoea only
b) Scarlet fever only
c) Tetanus Neonatorum
d) Haemorrhagic fever only
e) Chancroid + lymphogranuloma inguinale
f) Chancroid
g) All STDs
h) Filariasis only

ICD-9 Categories		Brunei 1992	Indonesia 1991	Japan 1991	Malaysia 1991	Philippines 1991	Singapore 1991	Thailand 1991
072	Mumps	V					V	
076	Trachoma							
081	Other Typhus	V			V			V
084	Malaria	V	V	V	V	V	V	
087	Relapsing Fever			V				V
090	Congenital Syphilis	V	V	V	V	V	V	
098	Gonococcal Infections	V	V	V	V	V	V	
099	Other Venereal Diseases	V		V e)	V f)	V	V g)	
100	Leptospirosis	V						
102	Yaws							
120	Schistosomiasis[Bilharziasis]		V			V		V
124	Trichinosis							V
125	Filarial Infection and Dracontiasis	V		V h)	V			
279.5	AIDS	V	V	V		V		V
487	Influenza		V	V		V		

8 Infectious Diseases Specified by Immunization Programme

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

Note: a) In restricted areas

b) Women only

c) Required under Institute for Medical Research

9 Explanatory Notes on Vital Statistics

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

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

where B = Number of live-births during a year
 D = Number of deaths during a year
 P = Population at middle of year

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

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

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

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

where M = Number of marriages during a year
 D = Number of divorces during a year
 B = Number of births during a year
 P = Population at middle of year
 F_{15-49} = Population of women at ages 15–49 at middle of year

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

Late fetal deaths:	Fetal deaths after at least 28 weeks' gestation
	Fetal deaths of unknown gestational age are included
Infant deaths:	Deaths under one year
Neonatal deaths:	Deaths under four weeks
Post-neonatal deaths:	Deaths from four weeks to under one year
Perinatal deaths:	Late fetal deaths and deaths under one week

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

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

where D_p = Direct obstetric deaths (Chapter XI in ICD-9) during a year
 B = Number of live-births during a year

9-1 Crude Live-birth Rates

(per 1,000 population)

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

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

Note: a) Calculated by Central Bureau of Statistics in 1985, based on National Census since 1980
 b) Rates from 1980 onward refer to Singapore residents only

9-2 Crude Death Rates

(per 1,000 population)

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

Source : (1) Birth & Death Registry and Economic Planning Unit

(2) Central Bureau of Statistics

(3) *Vital Statistics Japan*, Ministry of Health & Welfare(4) *Yearbook of Statistics, Malaysia*, Department of Statistics(5) *Philippine Health Statistics*, Health Intelligence Service, Department of Health(6) *Year book of Statistics, Singapore*,

Department of Statistics, Singapore

(7) Health Statistics Division, Ministry of Public Health

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

9-3 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 ^{a)}
⁽¹⁾ BRUNEI	1992	7.9	^{b)} 1.4	27.4	103.6	3.3	9.6
⁽²⁾ INDONESIA	1991			^{c)} 22.9		^{c)} 7.9	^{d)} 60
⁽³⁾ JAPAN	1991	6.0	1.4	9.9	39.2	6.7	4.4
⁽⁴⁾ MALAYSIA				27.9	^{g)} 108.5	4.6	12.5
Peninsular Malaysia	1991	^{e)} 2.8	^(5) f) 2.7	26.8	104.9	4.9	12.1
Sabah		^{e)} 2.5	^(5) f) 2.2	39.2	150.0	3.8	15.7
Sarawak		^{e)} 2.7	^(5) f) 2.3	25.6	103.8	3.8	9.5
⁽⁶⁾ PHILIPPINES	1990	7.0	..	26.9	108.7	5.2	24.3
^(7) h) SINGAPORE	1991	8.97	1.6	17.3	58.2	4.7	5.5
⁽⁸⁾ THAILAND	1991	^(9) i) 7.1	^(9) i) 0.6	17.0	62.0	4.7	8.2

Source : (1) Birth & Death Registry and Economic Planning Unit
 (2) Calculated by Central Bureau of Statistics, based on national census 1980
 (3) *Vital Statistics Japan*, Ministry of Health & Welfare
 (4) *Yearbook of Statistics Malaysia*, Department of Statistics
 (5) *Social Statistical Bulletin, Malaysia 1981*
 (6) *Vital Statistics Report CPH*, National Statistics Office, based on registered events only; subject to under-reporting and *Philippine Health Statistics*, Department of Health
 (7) *Yearbook of Statistics, Singapore*, Department of Statistics
 (8) Health Statistics Division, Ministry of Public Health
 (9) Ministry of Interior

Note: a) Per 1,000 live-birth
 b) Muslims
 c) Estimation 1995
 d) Estimation 1992
 e) Muslim marriages are excluded
 f) For 1980
 g) For 1987
 h) Rates refer to Singapore residents only
 i) For 1984

9-4 Natality, Mortality and Natural Increase

	Year	Natality (live-born)				General Mortality				Natural Increase (%)
		Number			(‰)	Number			(‰)	
		Total	Male	Female		Total	Male	Female		
⁽¹⁾ BRUNEI	1992	a) 7,290	3,709	3,580	27.2	887	534	352	3.3	23.9
⁽²⁾ INDONESIA	1991									19.8
⁽³⁾ JAPAN	1991	1,223,186	628,607	594,579	9.9	829,523	450,169	379,354	6.7	3.2
⁽⁴⁾ MALAYSIA	1991	507,889	262,730	245,159		83,851	47,641	36,210		
Peninsular Malaysia		401,796	207,624	194,172	26.8	71,456	40,299	31,157	4.9	21.9
Sabah		60,533	31,373	29,160	39.2	6,194	3,688	2,506	3.8	35.4
Sarawak		45,560	23,733	21,827	25.6	6,201	3,654	2,547	3.8	21.8
⁽⁵⁾ PHILIPPINES	1990	1,631,069	848,275	782,794	26.3	313,890	185,788	128,102	5.1	21.2
^(6) b) SINGAPORE	1991	49,114	25,314	23,798	17.3	13,876	7,840	6,034	4.7	12.6
⁽⁷⁾ THAILAND	1991	960,556	493,753	466,803	17.0	264,350	155,198	109,152	4.7	12.3

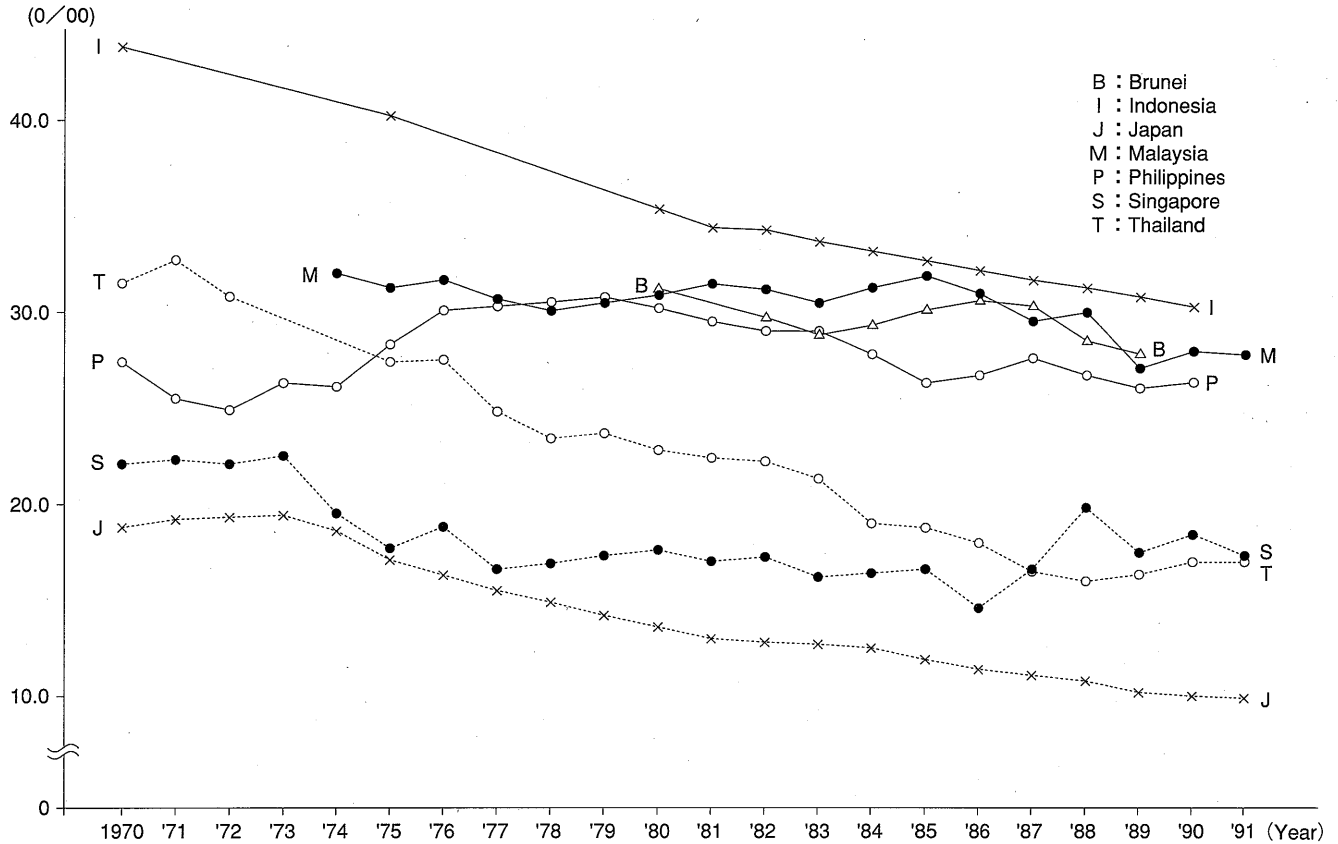
Source : (1) Birth & Death Registry and Economic Planning Unit
 (2) Calculated by Central Bureau of Statistics
 (3) *Vital Statistics Japan*, Ministry of Health & Welfare
 (4) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak*.
 (5) *Philippine Health Statistics*, Health Intelligence Service,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

Note: Figures for males and females may not add up to the total on account of unknown sex

a) Including one, intersex

b) Rates refer to Singapore residents only

Fig.5 Recent Trends in Crude Live-Birth Rate (Per 1,000)



10-1 Late Fetal, Infant, Neonatal, Post-neonatal and Perinatal Mortality (per 1,000 live-births)

	Year	Late Fetal Mortality		Infant Mortality		Neonatal Mortality		Post-neonatal Mortality		Perinatal Mortality	
		Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI ⁽¹⁾	1992	40	5.5	a) 70	9.6	a) 49	6.7	21	2.9	a) 72	9.8
INDONESIA ⁽²⁾	1991				60.0						
JAPAN ⁽³⁾	1991	4,381	3.6	5,416	4.4	2,977	2.4	2,167	1.8	6,548	5.4
MALAYSIA ⁽⁴⁾	1991	3,004		6,368		4,141		2,227		5,993	
Peninsular Malaysia		2,687	6.6	4,853	12.1	3,038	7.6	1,815	1.8	4,992	12.3
Sabah		204	3.4	1,080	17.8	799	13.2	281	4.6	668	14.3
Sarawak		113	2.5	435	9.5	304	6.7	131	2.9	333	7.3
PHILIPPINES ⁽⁵⁾	1990	11,915	7.3	39,633	24.3	19,013	11.7	20,620	12.6	26,485	16.2
SINGAPORE ⁽⁶⁾	1991	198	4.0	269	5.5	172	3.5	97	2.0	318	6.4
THAILAND ^(7) b)	1991	811	0.8	7,928	8.3	3,658	3.8	4,270	4.4	3,224	3.4

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

Note : a) Including one, intersex
b) 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.

10-2 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⁾	1992	T	70	16	16	17	21	—	9.6	2.2	2.2	2.3	2.9	—
INDONESIA ⁽²⁾	1991	T							60.0					
JAPAN ⁽³⁾	1991	T	5,418	1,115	1,053	810	2,440	—	4.4	0.9	0.9	0.7	2.0	—
		M	2,915	585	572	434	1,324	—	4.6	0.9	0.9	0.7	2.1	—
		F	2,503	530	481	376	1,116	—	4.2	0.9	0.8	0.6	1.9	—
MALAYSIA ⁽⁴⁾	1991	T	6,368											
		T	4,853						12.1					
		M	2,700						13.0					
		F	2,153						11.1					
		T	1,080						17.8					
		M	588						18.7					
		F	492						16.9					
		T	435						9.5					
		F	247						10.4					
		F	188						8.6					
PHILIPPINES ⁽⁵⁾	1990	T	39,633	14,570		4,443	20,620	—	24.3	8.9		2.7	12.6	—
SINGAPORE ⁽⁶⁾	1991	T	269	68	52	52	97	—	5.5	1.4	1.1	1.1	2.0	—
		M	150	41	26	33	50	—	5.9	1.6	1.0	1.3	2.0	—
		F	117	25	26	19	47	—	4.9	1.1	1.1	0.8	2.0	—
THAILAND ⁽⁷⁾	1991	T	7,928	1,199 a)	1,212	1,195	4,171	151	8.3	1.2	1.3	1.2	4.3	0.2
		M	4,561	658	708	691	2,410	94	9.2	1.3	1.4	1.4	4.9	0.2
		F	3,367	541	504	504	1,761	57	7.2	1.2	1.1	1.1	3.7	0.1

Source : (1) Birth & Death Registry and Economic Planning Unit

(2) Ministry of Health, Indonesia

(3) *Vital Statistics Japan*, Ministry of Health & Welfare

(4) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak*, Department of Statistics, Malaysia

(5) Health Intelligence Service, Department of Health

(6) *Report on Registration of Births and Deaths*, Singapore, National Registration Department

(7) Health Statistics Division, Ministry of Public Health

Note : a) Including under 1 day

10-3 Maternal Mortality Rates

(per 100,000 live-births)

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

Source : (1) Birth & Death Registry and Economic Planning Unit

(2) *Vital Statistics Japan*, Ministry of Health & Welfare(3) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak (Respective years)*(4) *Philippine Health Statistics*, Intelligence Health Service, Department of Health(5) *Report on the Registration of Births and Deaths*, National Registration Department

(6) Health Statistics Division, Ministry of Public Health

Note: a) Medically certified or inspected deaths only

11-1 Expectation of Life at Specified Ages for Each Sex

	Year	Sex	Age								
			0	1	2	3	4	5	10	15	20
BRUNEI ⁽¹⁾	1981	M F	70.1 72.7	70.3 72.7				66.7 69.0	61.9 64.1	57.1 59.3	52.4 54.8
INDONESIA ⁽²⁾	1992	M F	60.4 64.2	63.7 66.8				61.2 63.7	56.5 57.6	52.1 54.3	47.6 50.4
JAPAN ⁽³⁾	1991	M F	76.1 82.1	75.5 81.5	74.5 80.5	73.6 79.5	72.6 78.6	71.6 77.6	66.7 72.6	61.7 67.7	56.9 62.7
MALAYSIA ⁽⁴⁾ Peninsular Malaysia	1991	M F	68.8 73.4	69.0 73.3				65.3 69.6	60.4 64.7	55.6 59.9	50.9 55.0
PHILIPPINES ⁽⁵⁾	1991	M F	62.9 67.6	65.8 70.4	65.4 70.0	64.8 69.5	64.2 69.0	63.4 68.2	58.7 63.6	53.9 58.9	49.3 54.2
SINGAPORE ⁽⁶⁾	1991	M F	73.5 77.9	72.9 77.3				69.0 73.4	64.1 68.5	59.1 63.6	54.3 58.6
THAILAND ⁽⁷⁾	1991	M F	67.7 72.5	69.8 74.8				66.2 71.1	61.6 66.4	56.9 61.6	52.3 56.9

Source : (1) *Brunei Statistical Yearbook 1986*

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

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

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

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

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

(7) National Statistical Office

Age														
25	30	35	40	45	50	55	60	65	70	75	80	85	90	95+
47.8 49.7	43.2 44.9	38.5 40.1	33.9 35.4	29.4 31.0	25.1 26.6	21.1 22.7	17.3 19.2	13.7 16.1	10.6 12.9	7.6 10.0	5.7 7.2	4.2 5.2		
43.3 46.0	39.0 41.6	34.7 37.3	30.4 33.0	26.2 28.7	22.3 24.6	18.6 20.6	15.1 16.8	12.0 13.4	9.3 10.3	6.9 7.6	5.0 5.4			
52.1 57.8	47.3 52.9	42.5 48.0	37.7 43.2	33.0 38.4	28.5 33.7	24.2 29.1	20.1 24.6	16.3 20.2	12.8 16.0	9.6 12.2	6.9 8.8	4.9 6.1	3.4 4.0	2.3 2.5
46.3 50.2	41.7 45.4	37.1 40.6	32.5 35.9	28.1 31.3	23.8 26.8	19.8 22.5	16.2 18.4	12.9 14.7	10.0 11.4	7.3 8.5	5.4 6.2			
44.9 49.5	40.6 44.9	36.3 40.3	32.2 35.8	28.1 31.4	24.3 27.1	20.7 23.0	17.3 19.1	14.2 15.3	11.3 11.8	8.7 8.7	6.7 6.2			
49.5 53.7	44.7 48.8	39.9 44.0	35.1 39.1	30.4 34.4	26.0 30.0	21.8 25.3	17.9 21.1	14.6 17.1	11.6 13.5	9.0 10.3	6.7 7.4	4.4 4.6		
47.7 52.3	43.2 47.7	38.8 43.1	34.4 38.6	30.2 34.1	26.1 29.7	22.3 25.9	18.8 22.0	15.7 18.3	12.8 14.8	10.5 11.4	9.3 9.0			

11-2 Survivors at Specified Ages for Each Sex

	Year	Sex	Age							
			0	1	5	10	15	20	25	30
BRUNEI ⁽¹⁾	1981	M	100,000	98,320	97,810	97,436	97,126	96,553	95,797	95,087
		F	100,000	98,704	98,272	98,091	97,809	97,437	97,059	96,667
INDONESIA ⁽²⁾	1992	M	100,000	93,324	91,151	90,36	89,765	88,799	87,450	86,060
		F	100,000	94,663	92,647	91,949	91,409	90,597	89,513	88,259
JAPAN ⁽³⁾	1991	M	100,000	99,535	99,348	99,244	99,165	98,870	98,495	98,142
		F	100,000	99,578	99,429	99,358	99,305	99,199	99,056	98,884
MALAYSIA ⁽⁴⁾ Peninsular Malaysia	1991	M	100,000	98,587	98,209	97,936	97,617	96,998	96,187	95,408
		F	100,000	98,827	98,490	98,286	98,099	97,853	97,522	97,153
PHILIPPINES ⁽⁵⁾	1991	M	100,000	94,089	91,901	91,442	91,032	90,351	89,139	87,812
		F	100,000	94,674	92,289	91,696	91,335	90,879	90,245	89,526
SINGAPORE ⁽⁶⁾	1991	M	100,000	99,424	99,287	99,175	99,041	98,790	98,400	97,996
		F	100,000	99,496	99,385	99,314	99,206	99,084	98,899	98,698
THAILAND ⁽⁷⁾	1991	M	100,000	95,624	95,106	94,544	94,030	93,385	92,582	91,561
		F	100,000	95,670	95,248	94,798	94,513	94,024	93,316	92,702

Source : (1) *Brunei Statistical Yearbook 1986*

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

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

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

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

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

(7) National Statistical Office

Age												
35	40	45	50	55	60	65	70	75	80	85	90	95+
94,297 96,065	93,386 95,306	91,805 93,927	89,627 91,624	85,842 87,809	80,563 81,701	73,601 73,207	62,993 64,942	50,187 53,999	31,312 41,422	14,851 25,421		
84,489 86,822	82,598 85,135	80,133 83,093	76,784 80,473	72,128 76,891	65,728 72,020	57,106 65,070	46,155 55,412	33,181 42,507	19,753 27,476			
97,743 98,662	97,179 98,342	96,265 97,824	94,760 97,032	92,427 95,815	88,549 94,046	82,829 91,435	74,884 87,315	63,418 80,334	47,479 68,638	28,451 50,259	11,967 27,587	2,853 8,796
94,399 96,653	93,214 95,939	91,533 94,962	89,003 93,324	84,992 90,797	78,710 86,822	69,770 80,430	58,042 70,508	44,086 57,076	27,356 39,691			
86,072 88,644	83,988 87,477	81,504 85,967	77,917 83,948	73,189 80,895	67,177 76,987	59,258 71,410	50,182 63,943	39,395 53,057	26,803 37,554			
97,549 98,414	96,926 98,022	95,954 97,346	94,096 96,227	91,074 94,357	85,849 91,218	77,442 86,398	66,438 78,879	52,640 67,818	37,439 53,526	22,745 37,025		
90,304 91,900	88,711 90,780	86,695 89,406	83,959 87,701	79,901 84,092	74,226 80,437	66,522 75,230	57,251 68,750	45,430 60,596	30,775 47,065			

Fig.6 Survivors at Specified Ages for Each Sex (1) BRUNEI, 1981

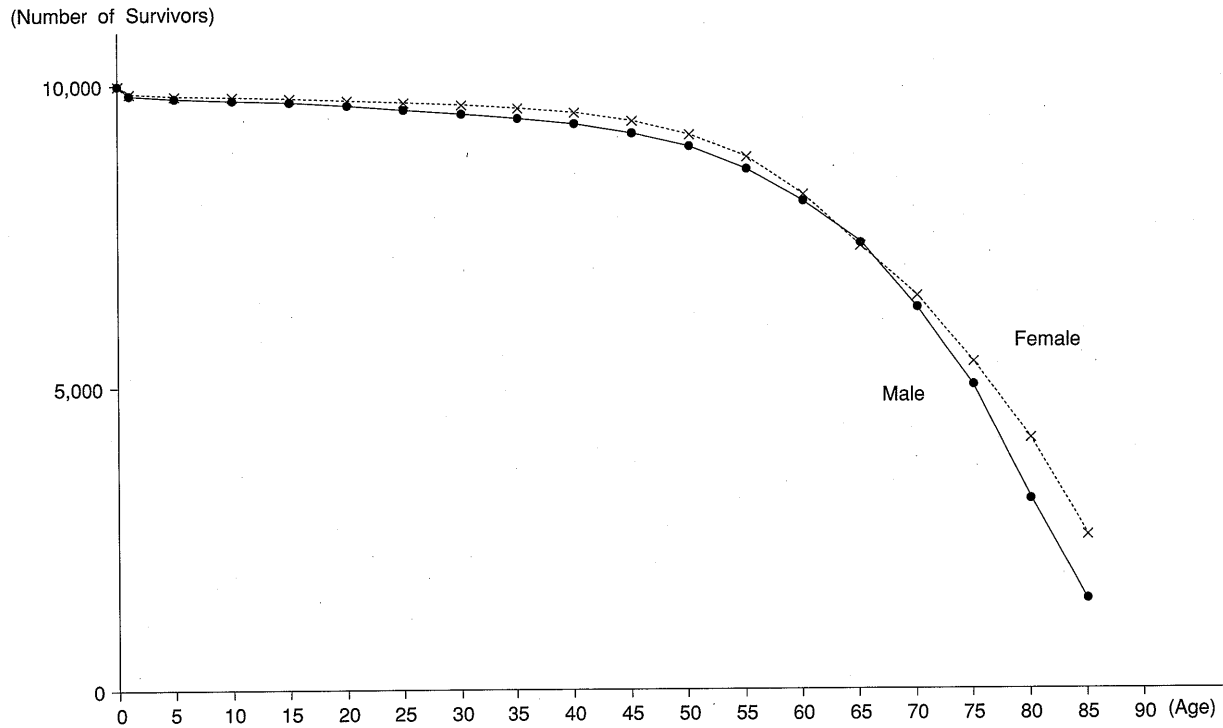


Fig.6 Survivors at Specified Ages for Each Sex (2) INDONESIA, 1992

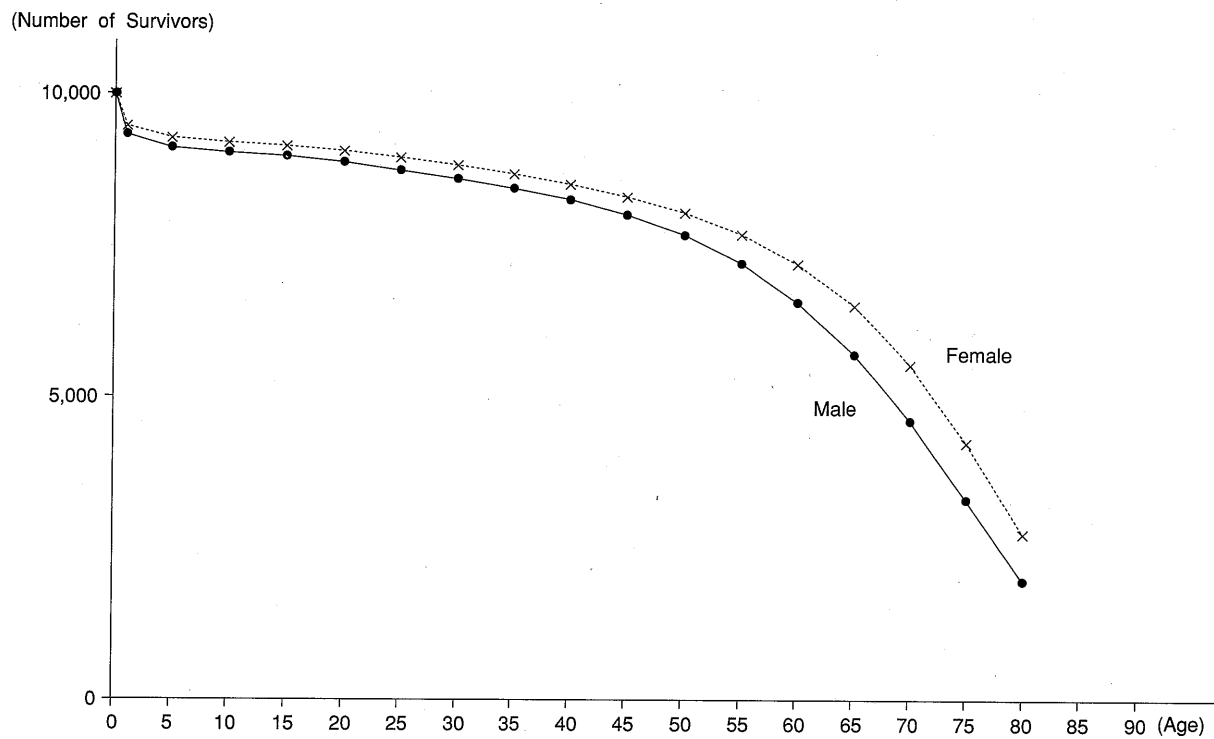


Fig.6 Survivors at Specified Ages for Each Sex (3) JAPAN, 1991

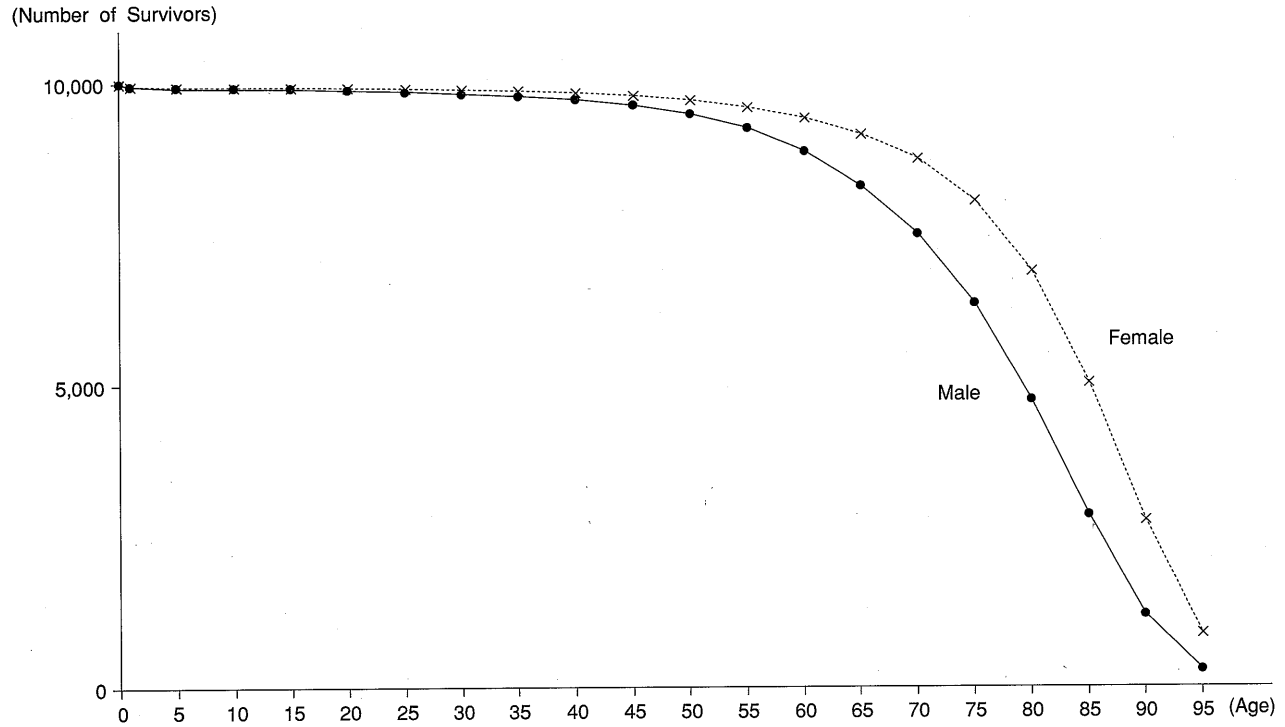


Fig.6 Survivors at Specified Ages for Each Sex (4) PENINSULAR MALAYSIA, 1991

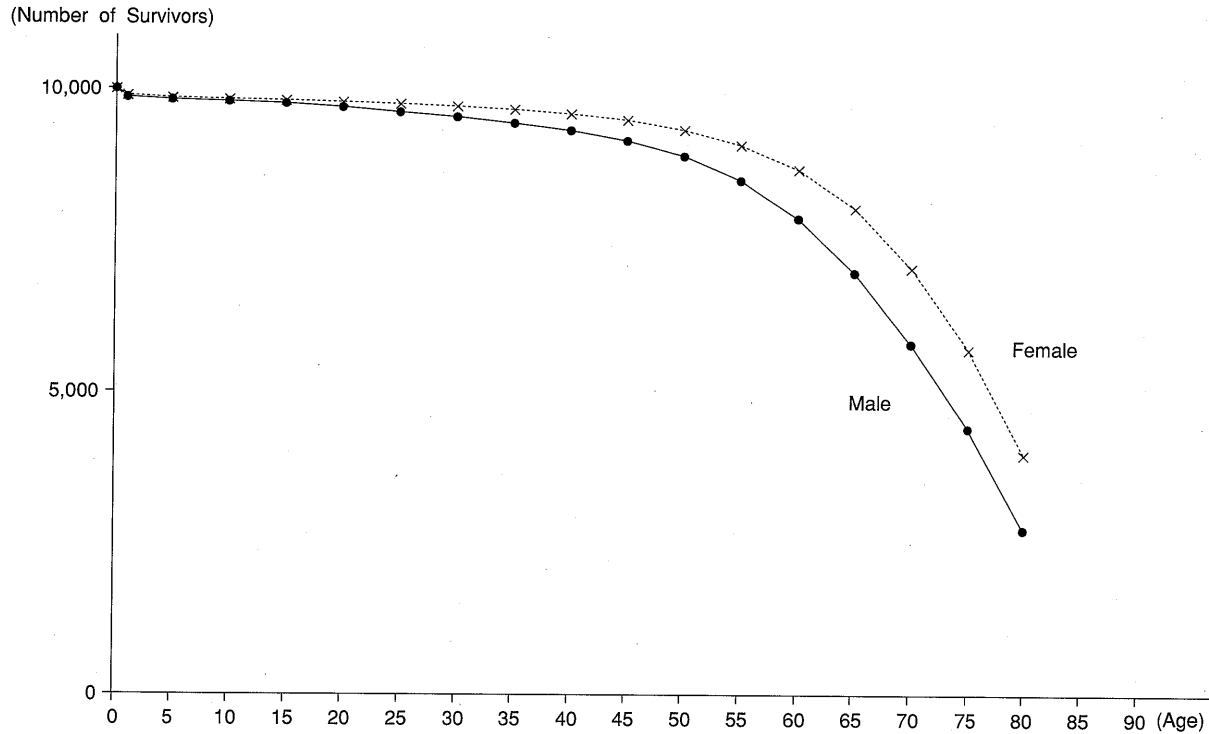


Fig.6 Survivors at Specified Ages for Each Sex (5) PHILIPPINES, 1991

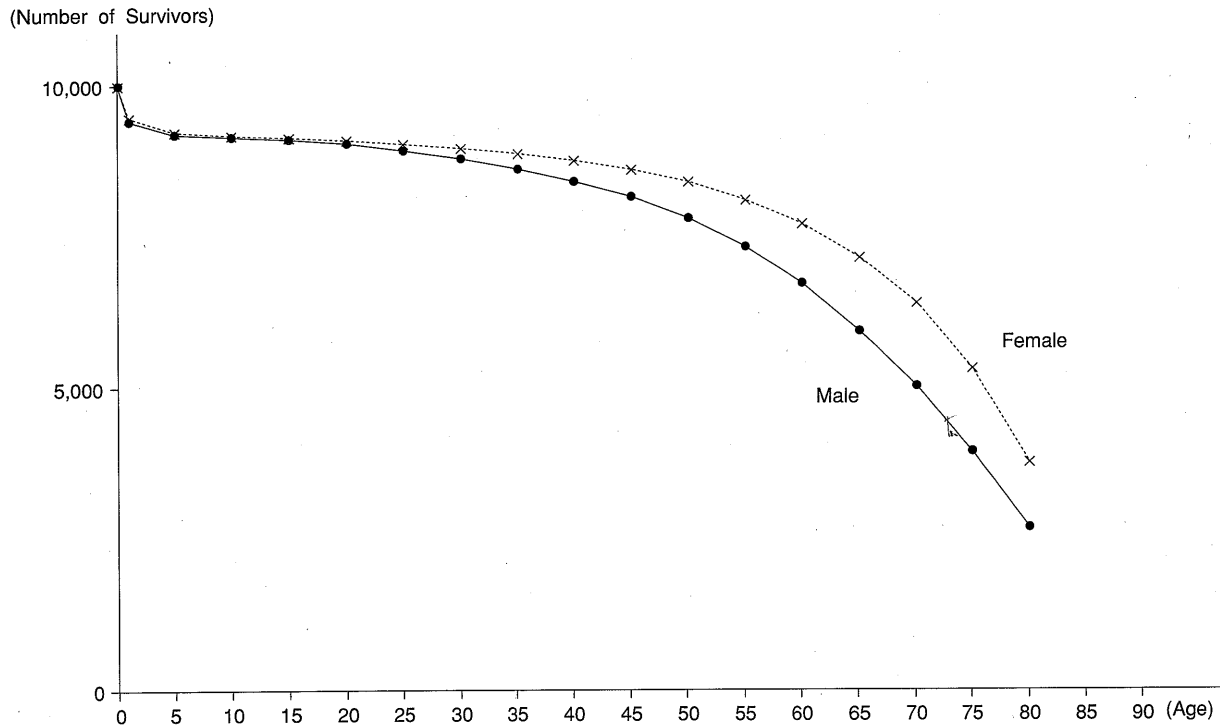


Fig.6 Survivors at Specified Ages for Each Sex (6) SINGAPORE, 1991

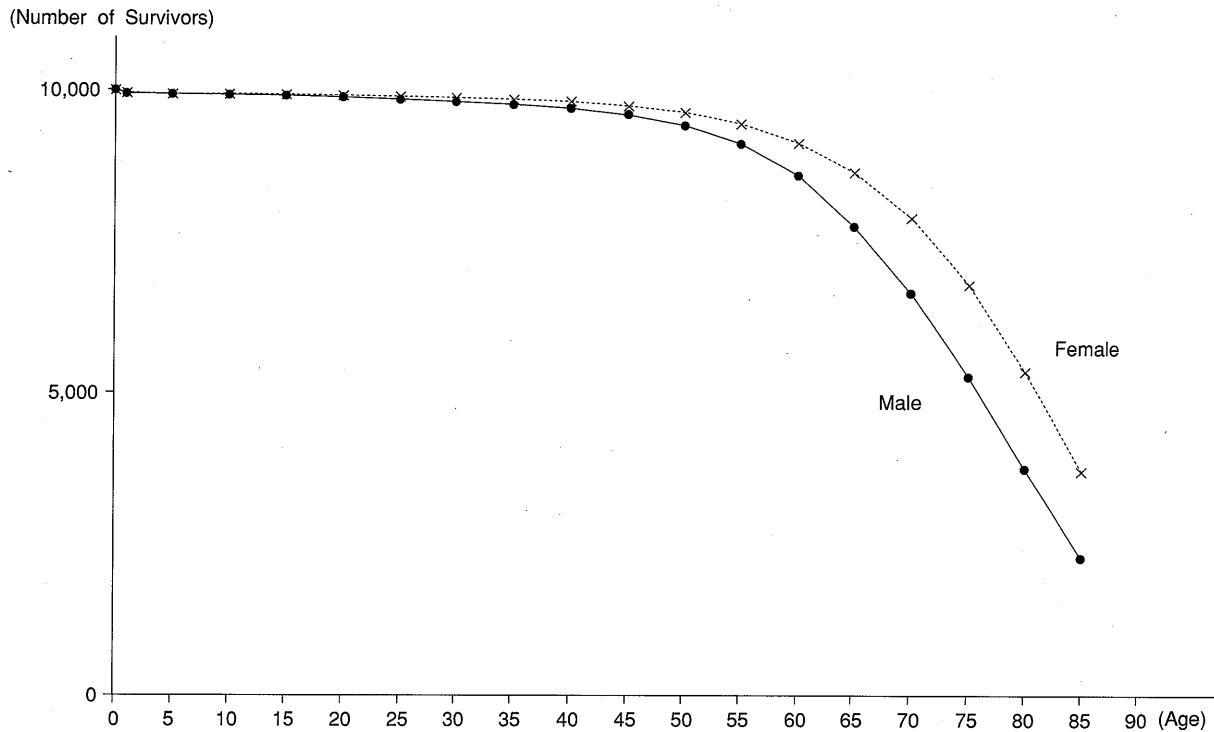
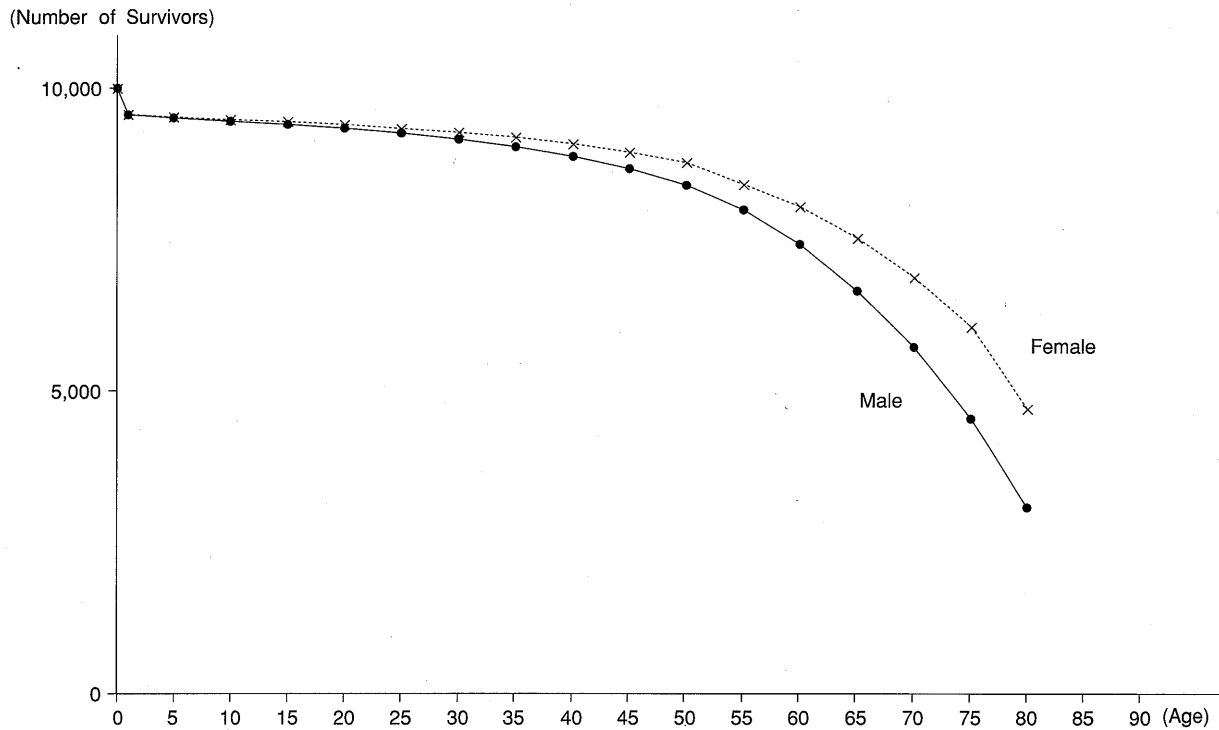


Fig.6 Survivors at Specified Ages for Each Sex (7) THAILAND, 1991



12 Per Capita Food Intake (1)

	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⁾	1987	1,986	1,912	74	44.1	35.3	8.8			
JAPAN ⁽²⁾	1991	2,053	1,577	476	80.2	37.5	42.7	58.0	29.6	28.4
MALAYSIA ⁽³⁾	1977	a) 2,549	a) 2,195	a) 354	57.6	35.7	21.9	45.5	29.2	16.3
PHILIPPINES ⁽⁴⁾	1987	1,753	1,541	212	49.7	31.1	18.6	30	19	11
SINGAPORE ⁽⁵⁾	1983	2,922	2,266	657	71.8	39.0	32.8	70.1	21.6	48.5
THAILAND ⁽⁶⁾	1986	1,766	1,412	354	50.8	27.9	22.9	42.6	13.4	29.2

Source : (1) *Welfare Indonesia*, Central Bureau of Statistics

(2) *National Nutrition Survey*, Health Promotion and Nutrition Division, Ministry of Health and Welfare

(3) *Food Balance Sheets 1975-77, Average and Per Capita Food Supplies 1961-65, Average 1967 to 1977*, FAO, 1980

(4) Actual Food Consumption Survey (Food weighing Technique), Food and Nutrition Research Institute, Department of Science & Technology 1987

(5) *Food Supplies Analyses*, FAO, Rome 1984

(6) Nutrition Division, Ministry of Public Health

Note: a) For 1982

12 Per Capita Food Intake (2)

	Year	Calcium (mg/day)	Iron (mg/day)	Vitamin A (mg/day)	Vitamin B ₁ (mg/day)	Vitamin B ₂ (mg/day)	Vitamin C (mg/day)	Carbohydrate (g/day)
BRUNEI								
INDONESIA	1987	215	10.0	a) 1,096	1.18		142	
JAPAN	1991	541	11.2	2,685	1.26	1.35	113	288
MALAYSIA	1977	330	13.5	135	0.87	0.79	44	
PHILIPPINES	1987	420	10.7	b) 389.7	0.68	0.56	53.6	313
SINGAPORE	1983	656	21.8	269	1.59	1.38	76	
THAILAND	1986	300.8	11.8	a) 4,679.3	0.89	0.73	95.9	

Note: a) Unit = IU

b) Unit = Retinol Equivalent, mcg.

13-1 Socio-Economic Indicators

	Year	Literacy Rates (%)	Year	Per Capita GNP ^{a)} (in US \$)	Year	Labour Force Participation Rate (%)
BRUNEI	1991	b) 89.2	1992	6,767	1991	c) 65.6
INDONESIA	1990	84.1	1990	573.86	1991	57.1
JAPAN	1991	d) 99.99	1991	27,377	1991	(1) 62.4
MALAYSIA	1980	Male : 80 Female : 64	1992	3,022	1991	66.8
PHILIPPINES	1991	(2) 93.5	1991	(2) 729	1991	(3) 64.5
(4) SINGAPORE	1991	e) 90.6	1991	11,753	1991	f) 64.8
(5) THAILAND	1984	g) 87.7	1991	1,628	1988	74.4

Source : (1) *Labour Force Survey*, Statistics Bureau, Management and Coordination Agency
(2) National Statistics Office
(3) *Philippine Statistical Yearbook*, National Statistical Coordinating Board
(4) *Year Book of Statistics, Singapore*, Department of Statistics
(5) Office of the National Economic and Social Development Board

Note: a) Figures for each country converted into US \$ by SEAMIC/IMFJ, using yearly average exchange rates shown in IMF International Financial Statistics.
b) Age 9 years and over
c) Age 15 years and over
d) Children enrolled
e) Per 100 resident population aged 10 years and over
f) Per 100 population aged 15 years and over
g) 7 years old

13-2 Expenditure of the Ministry of Health

	Fiscal Year	Total Health Budget	Health Budget as % of National Budget	Per Capita Health Budget	Health Expenditure			
					Total	Personal Services	Maintenance and Other	Capital Outlay (Development Expenditure)
BRUNEI	1992	US \$ 78,603,868	4.2%	US \$ 291.00	US \$ 78,603,868	US \$ 41,211,880	US \$ 27,034,705	US \$ 10,357,283 ^{a)}
INDONESIA	1991	US \$ 480,167,150	1.85%	US \$ 1.67				
^{b)} JAPAN	1991	US \$ 90,430,784,373	17.3%	US \$ 729.03				
MALAYSIA	1991	US \$ 792,215,690	5.63%	US \$ 43.57	US \$ 738,815,593	US \$ 531,980,655		US \$ 206,834,938
PHILIPPINES	1991	US \$ 271,756,971	4.49%	US \$ 4.07	US \$ 252,975,573	US \$ 109,184,419	US \$ 132,164,216	US \$ 11,626,938
SINGAPORE	1991	US \$ 380,306		US \$ 137.65	US \$ 365,352	US \$ 133,330	US \$ 150,651	US \$ 81,371
THAILAND	1990	US \$ 806,074,382	5.3%	US \$ 69.52				

Source : Ministry of Health in each country

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

a) Excluding average yearly developmental project expenditure

b) Including budget for social welfare

14 Family Planning Methods Used

(%)

	Year	Reversible				Irreversible		a) Natural	b) Others
		Oral Contraceptive	IUD	Injection	Condom	Sterilization (Tubal ligation, Vasectomy)			
BRUNEI									
(1) c) INDONESIA	1991	35.6	25.8	24.7	2.2	6.2	5.4		
(2) d) JAPAN	1990	5.7		—	73.9	9.8	15.3	9.0	
c) MALAYSIA	1992	85.4	2.3	0.6	11.5	0.3	0.0		
(3) d) e) PHILIPPINES	1992	58.2	10.9	—	12.9	11.9	0.1	15	f) 4.5
c) SINGAPORE	1987	11.1	6.7	0.4	31.6	32.7		16.2	1.3
(4) c) THAILAND	1991	26.0	11.0	17.0	—	g) 36.6	h) 8.0	—	1.2

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

Note: a) Basic body temperature, cervical mucous, rhythm method
 b) Diaphragm, etc.
 c) % of all those practising contraception
 d) Plural choice
 e) Continuing users
 f) Rhythm
 g) Tubal ligation
 h) Vasectomy

15 Housing Conditions

(%)

	Year		Percentage of Households in Occupied Dwelling Units with Piped Water	Percentage of Households in Occupied Dwelling Units by Type of Toilet Facilities				Lighting				
				Flush/ Water	Pit or Moulded Bucket	Other	None	Electricity	Pressure/ Gas Lamp	Oil Lamp	Other	Kerosene
BRUNEI	1981	Total	90.1	54.6	2.8	38.6	4.1	85.7	2.7	10.9	0.7	—
(1) INDONESIA	1990	Total	12.9									
		Urban	33.4	43.7	15.4		24.7					
		Rural	4.4	7.1	14.0							
(2) JAPAN	1988	Total	a) 94.0	67.2	32.8	—	—					
(3) MALAYSIA	1980	Total	65.0	56.4	22.7	4.4	16.5	64.4	8.4	26.5	0.7	—
Peninsular Malaysia		Total	68.0	60.7	21.7	3.6	14.7	68.4	7.3	23.6	0.7	—
Sabah		Total	50.3	32.1	32.9	8.1	26.9	45	15.7	28.7	0.6	—
Sarawak		Total	47.8	56.4	22.7	4.4	16.5	41.6	13.2	44.5	0.7	—
(4) PHILIPPINES	1990	Total	73.0	67.6 b)	14.4	2.0	16.0	55.1	1.7 c)	0.1	0.5	49.6
		Urban	89.4	83.6 b)	6.0	1.9	8.5	79.2	1.2 c)	0.1	0.2	19.3
		Rural	57.2	52.2 b)	22.4	2.1	23.3	31.9	2.1 c)	0.2	0.7	65.1
(5) SINGAPORE	1991	Total	99.5	100.0	—			95.8	4.2			—
(6) THAILAND	1980	Total	18.9	4.2	50.3	44.1	1.3	43	0.7	54.8	0.2	—

Source : (1) *Welfare Indicators*, Central Bureau of Statistics(2) *1983 Housing Survey of Japan, Vol. I. Part I*, Statistics Bureau, March 1988(3) *Census of Housing, Malaysia 1980 Summary Report*, Department of Statistics, July 1982(4) *Census of Population and Housing*, National Statistics Office

(5) Public Utilities Board and Ministry of the Environment

(6) *1980 Population & Housing Census, Whole Kingdom*, National Statistical Office

Note: a) For 1983

b) Includes closed pit

c) Liquefied petroleum gas

16-1 Mean Length of Infants from Birth to One Year

(cm)

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

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

(2) Ministry of Health and Welfare

(3) Food and Nutrition Research Institute

(4) Ministry of Health

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

16-2 Mean Weight of Infants from Birth to One Year

(kg)

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

Source : (1) *Indonesian Nutrition*, Vol. X, No. 1, 1985
 (2) Ministry of Health and Welfare, Japan
 (3) Ministry of Health
 (4) Food and Nutrition Research Institute
 (5) Ministry of Health
 (6) *Worldwide Variation in Human Growth*, Cambridge University Press, 1976

16-3 Mean Chest Circumference of Infants from Birth to One Year

(cm)

	Population or Place	Year	Sex	Age					
				Birth	4 wks	3 mos	6 mos	9 mos	12 mos
BRUNEI									
(1) INDONESIA	Bogor	1976	T	—	36.3	40.4	43.1	44.5	45.4
(2) JAPAN	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									
(3) PHILIPPINES	National	1987	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									
(4) THAILAND	Bangkok	1976	M F	32.0 31.9	37.9 37.5	41.0 40.1	43.4 42.7	44.7 43.5	45.8 44.1

Source : (1) *Berita Ilmu Pengetahuan dan Teknologi*, LIPI, 1980

(2) Ministry of Health and Welfare

(3) Food and Nutrition Research Institute

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

16-4 Mean Height by Age (1-18 years)

	Population or Place	Year	Sex	Age						
				1	2	3	4	5	6	7
BRUNEI										
(1) INDONESIA	West Sumatra Central Java and West Nusa Tenggara	1988	M F						108.9 108.0	111.7 110.7
(2) JAPAN	National	1991	M F	(3) 79.8 (3) 78.9	(3) 90.1 (3) 89.1	(3) 96.7 (3) 96.1	(3) 104.3 (3) 103.3	110.8 109.9	116.8 116.1	122.5 121.7
(4) MALAYSIA	National	1960	M F						105.4	109.7 109.7
(5) PHILIPPINES	National	1987	M F	75.7 75.0	84.6 83.0	91.0 90.9	97.9 96.9	102.9 102.6	108.4 108.1	114.2 113.9
(6) SINGAPORE	National	1991	M F						120.0 119.0	125.6 124.6
(7) THAILAND	a) Bangkok b) Ubonratchatani	1984 1992	M F	(4) 73.5 (4) 72.2	(4) 83.8 (4) 84.0	(4) 93.5 (4) 93.0	(4) 100.5 (4) 99.0	(4) 105.0 (4) 103.5	113.5 115.7	116.9 116.2

Source : (1) *Report on Height and Growth of First Year Preliminary School Children in 1988/89*, Ministry of Population and Environment and Centre for Nutrition Research and Development, 1989

(2) Ministry of Education, Science and Culture

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

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

(5) Food and Nutrition Research Institute

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

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

Note: a) 1-5 years of age

b) 6-18 years of age

(cm)

Age										
8	9	10	11	12	13	14	15	16	17	18
113.5 112.6										
128.0	133.4	138.6	144.5	151.8	159.2	164.8	168.1	169.7	170.6	(3) 170.9
127.5	133.2	139.5	146.3	151.6	154.7	156.6	157.2	157.7	157.9	(3) 157.8
111.8 112.8	114.3 117.9	121.9 123.4	129.3 131.8	133.4 137.2	138.4	141.4				
118.4 118.8	123.0 123.4	126.8 128.9	131.7 135.2	137.8 140.8	144.7 144.8	149.5 147.6	155.1 149.8	159.2 150.4	161.2 150.6	163.0 151.3
130.8 130.3			148.0 149.3				169.7 158.8			
123.1	127.0	130.9	137.5	141.8	148.9	155.1	158.3	162.4	163.1	163.1
121.1	127.2	133.9	139.5	148.1	147.7	149.4	150.9	154.5	153.6	153.6

16-5 Mean Weight by Age (1-18 years)

	Population or Place	Year	Sex	Age						
				1	2	3	4	5	6	7
BRUNEI										
(1) INDONESIA	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
(2) JAPAN	National	1991	M F	(3) 10.7 (3) 10.3	(3) 13.1 (3) 12.8	(3) 14.9 (3) 14.8	(3) 17.2 (3) 16.5	19.3 18.9	21.5 21.2	24.1 23.6
(4) MALAYSIA	National	1960	M F						16.4	17.8 18.6
(5) PHILIPPINES	National	1987	M F	9.3 9.0	11.3 10.7	12.7 12.4	14.4 13.8	15.5 15.2	17.3 16.7	19.1 18.8
(6) SINGAPORE	National	1991	M F						22.8 21.8	25.7 24.6
(7) THAILAND	a) Bangkok	1984	M	(4) 9.1	(4) 11.0	(4) 13.4	(4) 15.1	(4) 16.8	18.8	20.4
	b) Ubonratchatani	1992	F	8.5	10.9	13.0	14.5	16.1	18.0	19.5

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

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

(kg)

Age										
8	9	10	11	12	13	14	15	16	17	18
19.9 19.2	21.3 21.6	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
27.1 26.6	30.5 30.0	34.1 33.9	38.0 39.0	43.9 44.0	49.3 47.5	54.5 50.2	59.2 52.1	61.2 52.9	62.2 52.8	(3) 62.6 (3) 51.3
19.5 18.7	20.7 21.8	24.2 24.0	27 28.5	29.5 30.0	32.5	35.5				
20.6 20.8	22.6 22.9	24.3 25.7	26.9 29.3	30.6 33.3	35.2 36.8	38.8 40.4	43.1 43.3	47.3 45.3	49.5 46.0	51.9 46.3
28.9 27.7			40.7 40.6				58.5 50.1			
23.4 21.6	24.8 24.0	25.9 29.4	30.3 31.6	31.1 38.4	37.9 38.4	44.9 40.7	46.7 45.0	51.0 47.8	51.8 47.4	53.0 49.1

17 Definitions Used in Hospital Statistics (WHO)

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

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

17-1 Comparative Table on Medical Establishments

	Brunei (1992)	Indonesia (1991)	Japan (1991)	Malaysia (1992)			Philippines (1991)	Singapore (1991)	Thailand (1991)
				Peninsular Malaysia	Sabah	Sarawak			
1 General Hospital	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Local or Rural Hospital		✓		a) ✓	a) ✓	a) ✓	✓	✓	✓
3 Medical Center							✓	✓	
4 Maternity Hospital		✓					✓	✓	✓
5 Infectious Diseases Hospital		✓	✓				✓		✓
6 Chronic Diseases Hospital								✓	
7 Leprosy Hospital		✓	✓	✓		✓	✓		✓
8 Tuberculosis Hospital		✓	✓	✓			✓		✓
9 Pediatrics Hospital							✓		✓
10 Ophthalmology Hospital		✓						✓ b)	✓
11 Orthopedics Hospital		✓					✓		
12 Mental Hospital		✓	✓	✓	✓	✓	✓	✓	✓
13 Estab. for Drug Addicts		✓					✓		✓
14 Other Specialized Hospital		✓					✓	✓ c)	✓

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

17-2 Hospitals and Other Medical Establishments with Beds (1)

	Year	1 General Hospitals				2 Local or Rural Hospitals				3 Medical Centres			
		Establish-ments	Beds	Admissions or Discharges	Patient-Days	Establish-ments	Beds	Admissions or Discharges	Patient-Days	Establish-ments	Beds	Admissions or Discharges	Patient-Days
BRUNEI	1992	10	a) 797	a) 30,473	a) 168,373	..				..			
(1) INDONESIA	1991	796	94,629	3,196,977	18,665,810	588	41,995	1,399,767	7,556,745	..			
JAPAN	1991	8,981	1,262,142	10,255,600	416,773,860	..				..			
(2) MALAYSIA	1992	16	13,561	685,514	3,466,339	84	12,605	641,358	2,415,241	..			
Peninsular		12	11,653	576,601	2,924,147	56	9,360	469,696	1,687,852				
Malaysia		3	1,172	73,461	347,700	12	1,338	75,220	277,428				
Sabah		1	736	35,452	194,492	16	1,907	96,442	449,961				
Sarawak													
(3) PHILIPPINES	1991	b) 623	41,403	2,081,695	9,035,533	d) 497	d) 19,935	d) 987,835	d) 4,208,788	8	2,950	109,599	707,016
SINGAPORE	1991	13	5,947	291,453	1,556,443	1	64	120	425	1	10	297	1,375
(4) THAILAND	1991	c) 983	c) 79,156	c) 4,305,701	c) 21,123,164	572	13,239						

Source: Ministry of Health in each country

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

- Note: a) Based on 4 government hospitals
b) Special hospital under Department of Health
c) Including community hospitals
d) For 1990

4 Maternity Hospitals				5 Infectious Diseases Hospitals				6 Chronic Diseases Hospitals			
Establish- Ments	Beds	Admissions or Discharges	Patient- Days	Establish- Ments	Beds	Admissions or Discharges	Patient- Days	Establish- Ments	Beds	Admissions or Discharges	Patient- Days
..				..				..			
55	2,660	73,283	297,781	1	103	3,490	13,887	..			
..				10	11,868	212	6,923	..			
..				..				..			
1	700	35,187	139,277	e) 1	e) 900	e) 22,238	e) 148,514	..			
1	516	38,842	149,460	..				1	454	153	113,349
8	1,009			1	400			..			

Note: e) Incomplete data (1st-3rd only)

17-2 Hospitals and Other Medical Establishments with Beds (2)

	Year	7 Leprosy Hospitals				8 Tuberculosis Hospitals				9 Pediatrics Hospitals			
		Establish- ments	Beds	Admissions or Discharges	Patient- Days	Establish- ments	Beds	Admissions or Discharges	Patient- Days	Establish- ments	Beds	Admissions or Discharges	Patient- Days
BRUNEI	1992	..				..				..			
⁽¹⁾ INDONESIA	1991	23	2,752	2,323	782,378	10	727	7,435	151,736	..			
JAPAN	1991	16	9,394	89	2,378,501	13	41,280	1,297	273,225	..			
⁽²⁾ MALAYSIA	1992	2	1,098	2,388	129,919	1	259	2,461	21,557	—			
Peninsular		1	836	2,366	115,718	1	259	2,461	21,557				
Malaysia		—	—	—	—	—	—	—	—				
Sabah		1	262	22	14,201	—	—	—	—				
Sarawak													
⁽³⁾ PHILIPPINES	1991	8	4,920			1	738	8,726		2	450	11,908	84,318
SINGAPORE	1991	..				..				..			
⁽⁴⁾ THAILAND	1991	6	2,670	—	—	1	600	—	—	1	538	—	—

17-2 Hospitals and Other Medical Establishments with Beds (3)

10 Ophthalmology Hospitals				11 Orthopedics Hospitals				12 Mental Hospitals			
Establish- ments	Beds	Admissions or Discharges	Patient- Days	Establish- ments	Beds	Admissions or Discharges	Patient- Days	Establish- ments	Beds	Admissions or Discharges	Patient- Days
..				..				..			
9	627	11,611	87,037	1	200	1,444	46,699	48	8,050	30,544	2,371,630
..				..				1,046	360,905	172,248	94,217,373
..				..				4	5,738	8,079	1,550,341
..				..				2	5,098	6,802	1,379,053
..				..				1	302	654	58,194
..				..				1	338	623	113,094
..				1	700	2,379	157,607	f)	f)	f)	f)
..				..				1	5,200	624	218,610
g) 1	..	..	..	..				3	2,810	5,901	905,192
14	113			..				14	8,041		

Note: f) 1st quarter only

g) Singapore National Eye Centre provides only ambulatory care .

17-2 Hospitals and Other Medical Establishments with Beds (4)

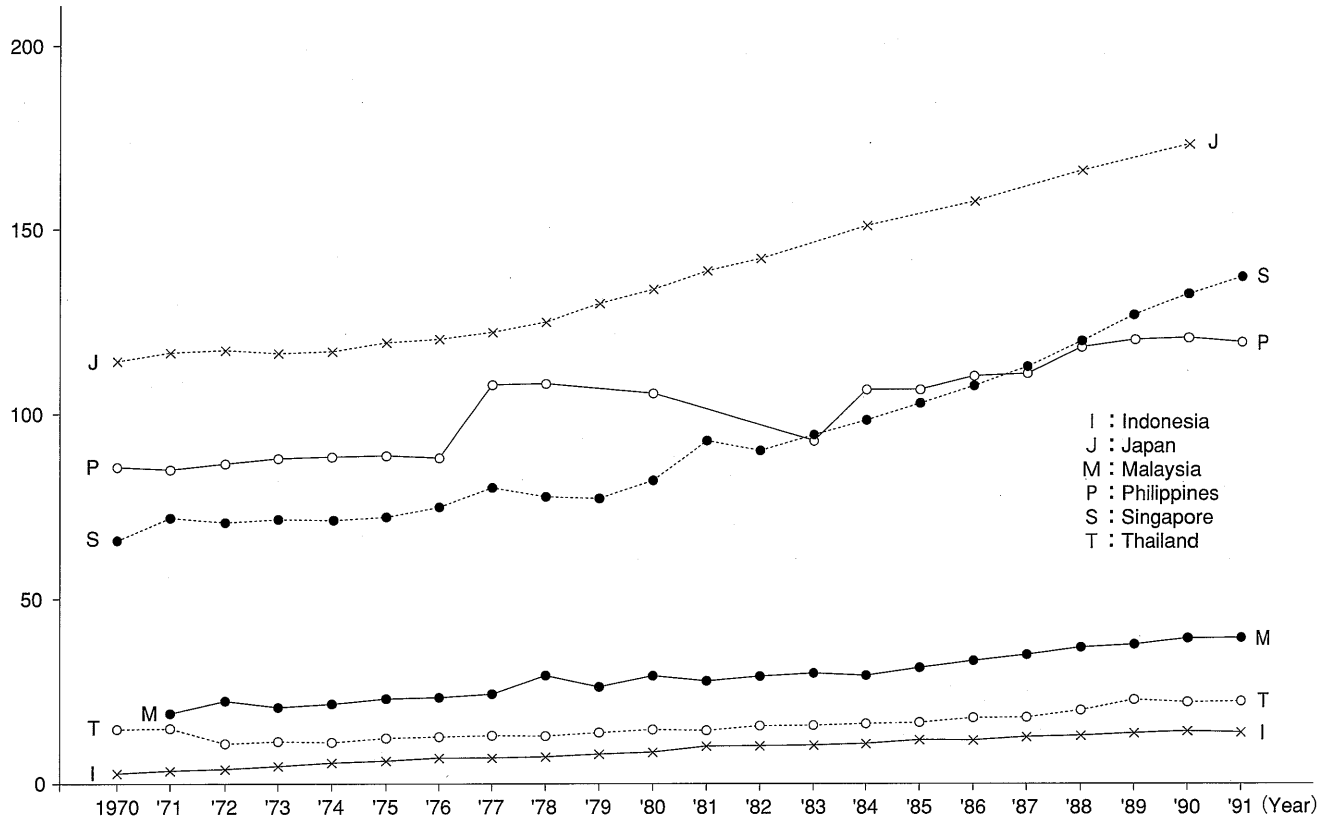
	Year	13 Establ. for Drug Addicts				14 Oter Specialized Hospitals				15 Total			
		Establish-ments	Beds	Admissions or Discharges	Patient-Days	Establish-ments	Beds	Admissions or Discharges	Patient-Days	Establish-ments	Beds	Admissions or Discharges	Patient-Days
BRUNEI	1992	..				..				10	a) 797	a) 30,473	a) 168,373
INDONESIA ⁽¹⁾	1991	1	23	—	—	37	1,334	37,373	174,593	282	111,127	3,314,696	22,617,708
JAPAN	1991	..				..				10,066	1,685,589	10,429,446	513,649,882
MALAYSIA ⁽²⁾	1992	..				..				107	33,261	1,339,800	7,583,397
Peninsular		..				..				72	27,206	1,057,926	6,128,327
Malaysia		..				..				16	2,812	149,335	683,322
Sabah		..				..				19	3,243	132,539	771,748
Sarawak		..				..							
PHILIPPINES ⁽³⁾	1991	h) 15		3,577		4	803	12,737	129,905				
SINGAPORE	1991	..				i) 1	..	..	..	22	9,801	336,766	2,726,244
THAILAND ⁽⁴⁾	1991	2	700	—	—	7	1,163	—	—	1,064	93,852	—	—

Note: h) Residential Centers 13 and Drop-in Centers 12, from 1991 *Dangerous Drugs Board Annual Report*

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

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

(Number of Physicians)



17-3 Hospital Utilization by Category of Hospital (1)

	Year	All Hospitals					General Hospitals					
		Type	Population per Bed	Bed per 10,000 Population	Admissions per 10,000 Population	Bed Occupancy Rate (%)	Type	Bed per 10,000 Population	Admissions		Bed Occupancy Rate (%)	Average Length of Stay (Days)
									per 10,000 Population	per Bed		
BRUNEI	1992	A	336	298	1,145	58	A	298	1,145	39	58	5.5
INDONESIA ⁽¹⁾	1992		1,942	5.1	17,213	53		2.9	96.8	33.9	57.8	6.1
JAPAN	1991	T	62.9	135.9	847.2	83.6	T	102.5	833.1	8.1	81.9	37.2
MALAYSIA ⁽²⁾ Peninsular Malaysia Sabah Sarawak	1992	A	543.5	18.4	741.1	62.0	A	7.5	379.2	61.9	73.9	5.3
			531.7	18.8	731.9	61.5		8.1	398.6	61.5	68.6	5.2
			572.2	17.5	804.7	57.6		6.3	395.9	57.6	81.0	4.8
			625.3	16.0	753.7	75.0		4.2	201.9	74.9	72.2	5.7
PHILIPPINES ⁽³⁾	1991	T	810	4.1	208.2	78.9	T	4.1	208.2	50.3	76.2	4.6
SINGAPORE ^{a)}	1991	T	282	35.5	1,072.7	81.2	T	21.5	928.4	49.0	77.6	5.3
THAILAND ⁽⁴⁾	1991	T	604	16.6	785.6		T	13.9	759.9	54.4		

Source: Ministry of Health in each country

(1) Directorate of Medical Care, Ministry of Health

(2) Information and Documentation System Unit

(3) Hospital Operation & Management Services

(4) Health Statistics Division

Note: Type of hospitals

T = Total

A = Government hospital establishments

a) Refer to Singapore residents population only

District Hospitals						Tuberculosis Hospitals					
Type	Bed per 10,000 population	Admissions		Bed Occupancy Rate (%)	Average Length of Stay(Days)	Type	Bed per 10,000 population	Admissions		Bed Occupancy Rate (%)	Average Length of Stay(Days)
		per 10,000 population	per Bed					per 10,000 population	per Bed		
..						..					
	2.3	75.3	32.9	48.8	5.3		0.0	0.5	12.0	59.1	20.0
..						T	3.4	0.1	0.0	46.4	143.9
A	6.9	354.7	50.9	52.9	4.0	A	0.1	1.4	9.5	22.7	8.7
	6.5	324.7	50.2	51.5	3.8		0.1	1.4	9.5	22.7	8.7
	7.2	405.3	56.2	53.4	3.6		—	—	—	—	—
	10.8	548.5	50.6	56.1	4.9		—	—	—	—	—
	1.0	52.3	50.3	70.2	4.0	T	0.1	0.9	11.8	93.0	
..						..					
A	2.3					T	0.1				

	Year	Type	Mental Hospitals					Type	Maternity Hospitals				
			Bed per 10,000 population	Admissions		Bed Occupancy Rate (%)	Average Length of Stay(Days)		Bed per 10,000 population	Admissions		Bed Occupancy Rate (%)	Average Length of Stay(Days)
				per 10,000 population	per Bed					per 10,000 population	per Bed		
BRUNEI	1992				..					..			
(1) INDONESIA	1991		0.4	1.1	4.6	81.4	71.0		0.1	4.0	27.8	30.7	4.0
JAPAN	1991	T	29.3	14.0	0.5	96.9	492.1						
(2) MALAYSIA Peninsular Malaysia Sabah Sarawak	1992	A	2.0 3.5	4.5 3.5	1.4 1.3			..					
			1.6	3.5	2.2								
			1.5	3.5	1.8								
(3) PHILIPPINES	1991	Special	0.5	0.1	0.1	60.9	73	Special	0.1	a) 3.5	a) 50.3	a) 63.2	a) 3.0
SINGAPORE	1991	T	b) 10.2	b) 18.8	2.1	88.3	129.8	T	b) 1.9	b) 123.7	75.3	81.4	3.8
(4) THAILAND	1991	T	1.4					T	0.2				

Source: Ministry of Health in each country

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

Note: a) 1st quarter only

b) Refer to Singapore residents population only

17-4 Number of Hospitals

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

Source: Ministry of Health in each country

Note: a) For 1992

b) Excluding maternity hospitals

c) Licensed only

d) Only with beds

17-5 Number of Beds

		1970	1975	1980	1984	1985	1986	1987	1988	1989	1990	1991
BRUNEI			506	630	876	876	876	876				
INDONESIA		86,022	83,696	98,543	104,966	110,361	111,300	112,328	116,847	107,112	109,387	111,127
JAPAN		1,062,553	1,164,098	1,319,406	1,467,050	1,495,328	1,533,887	1,582,393	1,634,309	1,661,952	1,676,803	1,685,589
MALAYSIA				35,291	32,669	32,495	32,960	33,161		33,341	33,432	33,261
Peninsular Malaysia		27,927		29,792	26,993	26,491	27,185	27,272		27,445	27,462	27,206
Sabah			2,233	2,670	2,534	2,809	2,799	2,799	2,803	2,799	2,803	2,812
Sarawak		2,000	2,358	2,829	3,142	3,195	2,976	3,090	3,090	3,097	3,167	3,243
PHILIPPINES	Total	40,289	55,323	81,976	a) 84,142	90,279	89,668	97,735	90,414	90,414	86,948	81,647
	Public	19,725	27,075	39,625	45,187	47,861	48,045	57,470	50,703	50,703	48,602	46,338
	Private	20,564	28,248	42,351	38,955	42,418	41,623	40,265	39,711	39,711	38,346	35,309
SINGAPORE	Total	7,760	9,311	9,585	9,687	10,000	10,111	10,027	9,730	9,644	9,759	9,801
	Public	6,891	8,211	8,078	8,085	8,329	8,274	8,191	7,893	7,852	7,922	7,892
	Private	869	1,100	1,507	1,602	1,671	1,837	1,836	1,837	1,792	1,837	1,909
THAILAND	Total	25,619	52,652	71,718	b) 81,070	b) 84,045	b) 84,438	89,633	88,009	89,982	90,740	93,852

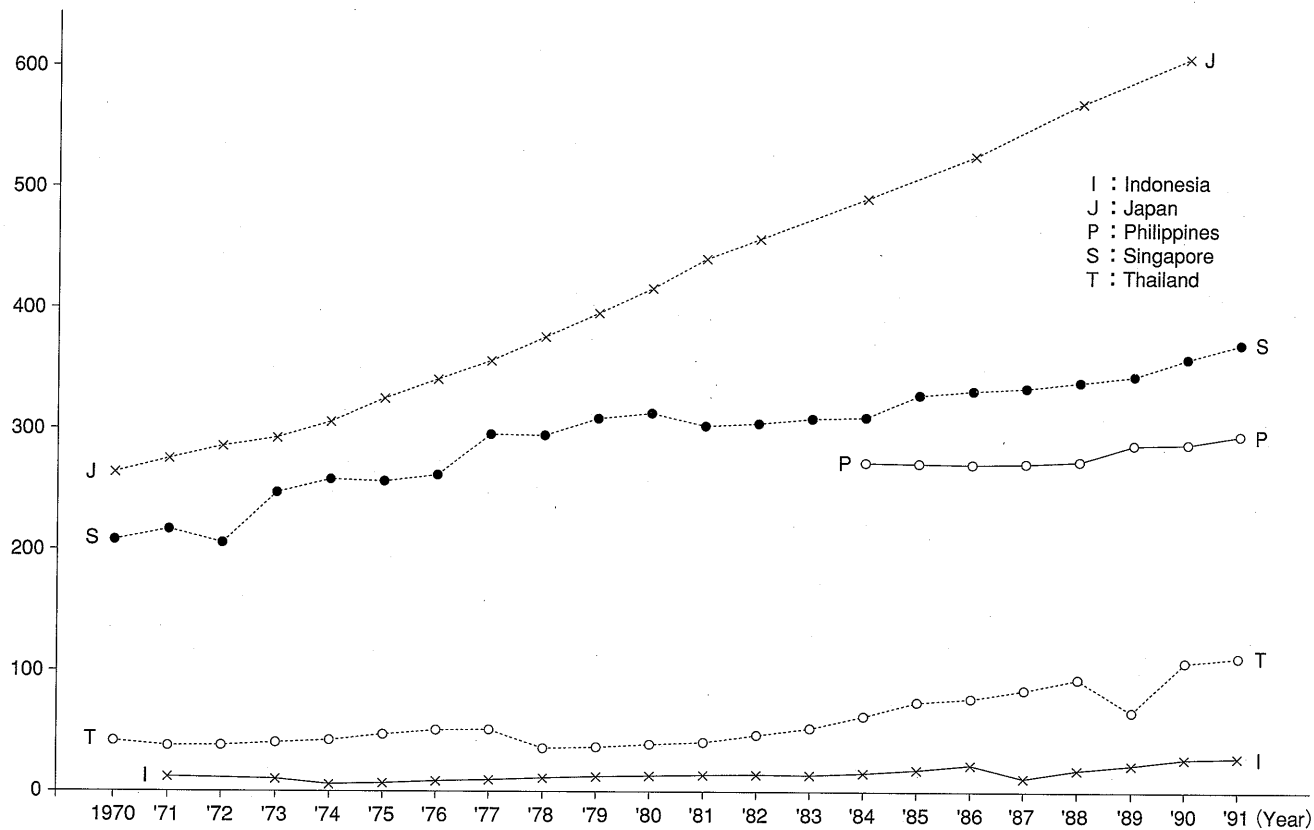
Source: Ministry of Health in each country

Note: a) For 1982

b) Including private maternity centres

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

(Number of Nurses)



18 Definition of Medical Personnel (WHO)

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

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

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

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

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

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

18-1 Comparative Table on Medical Personnel (1)

	Malaysia (1991)								
	Brunei (1991)	Indonesia (1991)	Japan (1992)	Peninsular Malaysia	Sabah	Sarawak	Philippines (1991)	Singapore (1991)	Thailand (1991)
1 Physicians	V	V	V	V	V	V	V	V	V
2 Medical assistants	V			V	V	V			V
3 Multipurpose health auxiliaries							V		
4 Dentists/Dental auxiliaries	V	V	V	V	V	V	V	V	V
5 Dental operation auxiliaries	V	V	V				V	V	
6 Dental non-operating auxiliaries		V						V	
7 Pharmacists/Chemists	V	V	V	V	V	V	V	V	V
8 Pharmaceutical assistants	V	V		V	V	V		V	V
9 Veterinarians/Veterinary surgeons	V		V				V	V	V
10 Animal health assistants								V	V
11 Professional midwives	V	V	V	V	V	V	V	V	V
12 Assistant midwives/Auxiliary midwives	V								
13 Auxiliary nurse-midwives	V								V
14 Professional nurses	V	V	V	V	V	V	V	V	V
15 Assistant nurses/Auxiliary nurses	V		V	V	V	V		V	V
16 Nursing and midwifery aids							V		
17 Physiotherapists/Physical therapists	V	V	V	V	V	V	V	V	V
18 Medical laboratory technicians	V	V	V	V	V	V	V	V	V
19 Assistant medical laboratory technicians	V	V	V	V	V	V		V	V
20 Medical physicist	V						V		
21 Medical radiological technicians	V	V	V				V	V	V
22 Assistant medical radiological technicians	V		V					V	
23 Sanitary engineers		V		V	V	V	V	V	V
24 Sanitarians	V	V					V	V	V
25 Auxiliary sanitarians	V							V	

18-1 Comparative Table on Medical Personnel (2)

	Brunei (1991)	Indonesia (1991)	Japan (1992)	Malaysia (1991)			Philippines (1991)	Singapore (1991)	Thailand (1991)
				Peninsular Malaysia	Sabah	Sarawak			
26 Other scientific or professional personnel	V							V	
27 Other technical personnel			V					V	
28 Other health auxiliaries and aides								V	V
29 Practitioners of traditional midwifery									V
30 Dental nurses		V		V	V	V		V	
31 Nurses including nurse-midwives		V						V	
32 Orthopaedic technicians		V							
33 Malaria field officers							V		V
34 Health statistics technicians	V			V					V
35 Medical statisticians	V			V					V
36 Dental hygienists		V	V				V		V
37 Trained or rural midwives							V		
38 Traditional birth attendants							V		
39 Laboratory aides									V
40 Sanitary inspectors		V					V		
41 Medical social workers	V		V				V	V	
42 Dental practitioners								V	
43 Veterinary assistants								V	V
44 Nurse-midwives		V							
45 Dental technicians				V	V	V		V	
46 Dispensers		V						V	
47 Assistant nurse-midwives		V							
48 Nurses		V	V	V	V	V	V	V	V
49 Occupational therapists	V	V	V	V	V	V	V	V	V

	Malaysia (1991)								
	Brunei (1991)	Indonesia (1991)	Japan (1992)	Peninsular Malaysia	Sabah	Sarawak	Philippines (1991)	Singapore (1991)	Thailand (1991)
50 Dietitians	V	V					V	V	V
51 Radiographers	V	V		V	V	V		V	
52 X-ray assistant technicians	V								
53 Health inspectors	V	V		V	V	V		V	
54 Assistant health inspectors		V		V	V	V		V	
55 Biochemists	V								V
56 Health educators	V	V					V	V	V
57 Midwives		V	V	V	V	V	V	V	
58 Microscopists	V								V
59 Health assistants	V								
60 Entomologists	V						V		V
61 Dental surgery assistants				V	V	V			
62 Nutritionists		V	V				V		
63 Darkroom assistants	V								

18-2 Medical and Allied Health Personnel (1)

	Year	1. Physicians	2. Medical Assistants	3. Multi-purpose Health Auxiliaries	4. Dentists/ Dental Surgeons	5. Dental Operating Auxiliaries	6. Dental Non-operating Auxiliaries	7. Pharmacists/ Chemists
BRUNEI	1991	197	118	..	27	28	..	10
INDONESIA ⁽¹⁾	1991	25,754	..	..	6,176	3,685		5,594
JAPAN	1992	219,704	..	..	77,416	32,629	..	162,021
MALAYSIA ⁽²⁾			b)					
Peninsular Malaysia	1991	7,198	3,035	..	1,501	..	..	1,214
Sabah		6,544	2,135	..	1,359	..	..	1,079
Sarawak		298	464	..	63	..	..	50
		356	436	..	79	..	..	85
PHILIPPINES	1991	c)	..	d)	c)	b)	..	c)
		74,008		208,162	30,354	3,639		38,092
SINGAPORE	1991	3,779	..	..	784	b)	b)	f)
						243	32	629
THAILAND ⁽³⁾	1991	12,803	264	..	2,408	..	..	4,333

Source: Ministry of Health in each country

(1) Personnel Bureau

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

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

(4) Livestock Industry Bureau, Ministry of Agriculture, Forestry and Fisheries

Note: a) For 1990

b) Government only

c) Cumulative Total

d) Barangay health workers active only as of December, 1990

e) Department of Health only, 1990

f) Pharmacists only

g) Entry used for calculation of population/nursing and midwifery personnel ratios

8. Pharmaceutical Assistants	9. Veterinarians/ Veterinary Surgeons	10 Animal Health Assistant	11. Professional Midwives	12. Assistant Midwives/ Auxiliary Midwives	13. Auxiliary Nurse-Midwives	14. Professional Nurses	15. Assistant Nurses/ Auxiliary Nurses	16. Nursing & Midwifery Aids
15	5	..	63	132	269	743	243	
3,345	..	..	29,869	..	..	53,308	..	a) 38,770
..	(4) 28,252	..	26,909	..	..	441,309	354,501	..
b) 1,532 1,254 128 150	..	..	b) 5,541 3,970 565 1,062	..	..	b) 11,604 9,709 1,037 858	b) 9,361 7,757 1,286 318	..
..	c) 3,769	..	c) 77,773	..	..	c) 183,277	..	e) 5,178
206	b) 24	b) 300	529	..	..	g) 7,570	g) 2,663	..
2,058	710	1,752	10,582	..	14,266	40,685	23,289	

18-2 Medical and Allied Health Personnel (2)

	Year	17. Physio- therapists/ Physical Therapists	18. Medical Laboratory Technicians	19. Assistant Medical Laboratory Technicians	20. Medical Physicists	21. Medical Radiological Technicians	22. Assistant Medical Radiological Technicians	23. Sanitary Engineers
BRUNEI	1991	9	59	36	76	4	14	..
(1) INDONESIA	1991	473	a) 284	a) 3,499	..	a) 223	..	a) 1,473
JAPAN	1992	12,039	44,032	a) 1,252	..	36,172	a) 2,978	..
(2) MALAYSIA		b) 162	b) 1,456	b) 1,264				b) 84
Peninsular Malaysia	1991	137	1,134	1,085	..	..	..	75
Sabah		9	150	29				5
Sarawak		16	172	150				4
PHILIPPINES	1991	c) 1,674	a) 2,577	..	d) 40	e) 927	..	d) 156
SINGAPORE	1991	b) 10	b) 87	b) 11	..	b) 38	b) 38	b) 189
(3) THAILAND	1991	540	1,230	2,997	..	314	..	51

Source: Ministry of Health in each country

(1) Center for Manpower Education

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

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

Note: a) For 1990

b) Government only

c) Cumulative

d) Department of Health only

e) Licensed as of 1990 of Department of Health

24. Sanitarians	25. Auxiliary Sanitarians	26. Other Scientific or Professional Personnel	27. Other Technical Personnel	28. Other Health Auxiliaries and Aids	29. Practitioners of Traditional Medicine/ Midwifery	30. Dental Nurses	31. Nurses Including Nurse-midwives	32. Orthopedic Technicians
23	18		..	..	..	..	..	..
a) 2,387	..	..	..	..	..	3,623	a) 53,913	a) 34
..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	b) 1,078 802 99 177	..	..
d) 2,362	..	..	..	..	..	..	..	..
b) 245	b) 348	b) 51	b) 20	b) 35	..	b) 294	10,233	..
635	..	..	..	a) 10,686	11,195	..	..	..

18-2 Medical and Allied Health Personnel (3)

	Year	33. Malaria Field Officers	34. Health Statistics Technicians	35. Medical Statisticians	36. Dental Hygienists	37. Trained or Rural Midwives	38. Traditional Birth Attendants	39. Laboratory Aids
BRUNEI	1991	..	3	1	..	..	..	..
INDONESIA ⁽¹⁾	1991	..	..	..	3,685	..	..	..
JAPAN	1992	..	..	..	44,219	..	..	..
MALAYSIA ⁽²⁾ Peninsular Malaysia Sabah Sarawa	1991	..	b) 9 9	b) 3 3	..	..	..	
PHILIPPINES	1991	c) 707	..	..	d) 6	c) 12,408	c) 34,827	..
SINGAPORE	1991	..	..	..	..	..	..	..
THAILAND ⁽³⁾	1991	16,953	277	796	1,124	..	..	834

Source: Ministry of Health in each country

(1) Center for Manpower Education

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

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

Note: a) For 1990

b) Government only

c) Department of Health only

d) Cumulative total

e) Professional nurses

40. Sanitary Inspectors	41. Medical Social Workers	42. Dental Practitioners	43. Veterinary Assistants	44. Nurse-midwives	45. Dental Technicians	46. Dispensers	47. Assistant Nurse-midwives	48. Nurses
..	3	..	..	..	..	..	..	..
4,157	..	..	..	a) 46,360	..	a) 11,729	11,393	68,867
..	a) 4,630	..	..	..	..	..	..	795,810
..	..	..	..	..	342	..	..	b) 11,604
..	..	..	..	..	286	..	..	9,709
..	..	..	..	..	24	..	..	1,037
..	..	..	..	..	32	..	..	858
c) 2,865	d) 7,978	..	..	..	..	..	..	d) 183,277
..	b) 34	784	b) 6	..	b) 32	b) 161	..	10,233
..	..	..	1,752	..	..	..	..	e) 40,685

18-2 Medical and Allied Health Personnel (4)

	Year	49. Occupational Therapists	50. Dietitians	51. Radiographers	52. X-ray Assistant Technicians	53. Health Inspectors	54. Assistant Health Inspectors	55. Biochemists
BRUNEI	1991	8	8	6	18	23	..	14
INDONESIA ⁽¹⁾	1991	667	5,866	516	..	2,312	6,003	..
JAPAN	1992	5,826	..	..	..	..	..	..
MALAYSIA ⁽²⁾		b)		b)		b)	b)	
Peninsular Malaysia	1991	117	..	367	..	1,067	2,077	..
Sabah		99	..	304	..	855	1,554	..
Sarawak		9	..	23	..	111	205	..
		9	..	40	..	101	318	..
PHILIPPINES	1991	(3) c) 187	c) 7,741	..	..	..	..	..
SINGAPORE	1991	b) 9	b) 9	b) 38	..	b) 245	b) 348	..
THAILAND ⁽⁴⁾	1991	226	370	..	..	..	..	110

Source: Ministry of Health in each country

(1) Center for Manpower Education

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

(3) Professional Regulation Commission

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

Note: a) For 1990

b) Government only

c) Cumulative total

d) Department of Health only

56. Health Educators	57. Midwives	58. Microscopists	59. Health Assistants	60. Entomologists	61. Dental Sugery Assistants	62. Nutritionists	63. Darkroom Assistants
4	..	6	18	1	..	..	9
a) 78	a) 18,439	..	..	..	..	a) 1,210	..
..	26,909	..	..	..	..	21,643	..
..	b) 5,541	..	..	..	b) 890	..	..
..	3,970	..	..	..	792	..	..
..	565	..	..	..	45	..	..
..	1,062	..	..	..	53	..	..
d) 112	c) 77,773	..	..	d) 19	..	c) 7,741	..
b) 6	529	..	..	..	..	..	..
411	..	163	..	18	..	..	..

18-3 Population/Health Personnel Ratios

	Year	Physicians per 10,000 Population	Population per Physician	Dentists per 10,000 Population	Population per Dentist	Pharmacists per 10,000 Population	Population per Pharma- cist	Medical Assistants per 10,000 Population	Population per Medical Assistant	Nursing Personnel per 10,000 Population	Population per Nursing Personnel	Nursing & Midwifery Personnel per 10,000 Population	Population per Nursing & Midwifery Personnel
BRUNEI	1991	7.6	1,324	1	9,662	0	26,086	4.4	1,479	29.7	337	34.8	287
INDONESIA	1991	1.4	710.3	0.3	29,621	0.3	34,226	..	..				
JAPAN	1990	17.7	560.3	6.0	1,590	13.0	760	..	..	61.7	162	63.9	156.5
MALAYSIA	1991	4.1	2,441	0.9	11,704	0.7	14,470	1.7	5,788	13.5	740	16.7	600
Peninsular		3.7	2,684	0.8	12,926	0.6	16,281	1.2	8,228				
Malaysia		0.2	58,950	0.1	278,841	0.1	351,340	0.3	37,860				
Sabah		0.2	49,345	0.1	222,367	0.1	206,670	0.2	40,261				
Sarawak													
(1) PHILIPPINES	1991	11.9	839	4.9	2,046	5.0	2,005	..	..	29.5	338.9	42.0	237.9
a) SINGAPORE	1991	13.7	731	2.8	3,524	2.3	4,392	..	..	37.0	270	39.3	254
THAILAND	1991	2.3	4,425	0.4	23,530	0.8	13,076	0.1	214,629			..	..

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

Note : a) Refer to residents population only

18-4 Number of Physicians

	1970	1975	1980	1984	1985	1986	1987	1988	1989	1990	1991
BRUNEI							171				197
(1) INDONESIA	3,578	8,279	12,931	(2) 17,760	(3) 19,875	20,176	(3) 22,053	(4) 23,367	24,823	25,752	25,754
JAPAN	118,990	132,479	156,235	181,101	NA	191,346	NA	201,658	NA	211,797	NA
(5) MALAYSIA		2,757	3,858	4,505	4,939	5,394	5,794	6,274	6,577	7,012	7,198
Peninsular Malaysia	2,370	2,511	3,518	4,111	4,541	4,938	5,300	5,737	5,981	6,327	6,544
Sabah		104	141	174	174	216	225	252	277	291	298
Sarawak	80	142	199	220	224	240	269	285	319	349	356
(6) PHILIPPINES	31,515	37,276	50,848	56,613	58,015	61,620	63,340	65,893	68,682	72,593	74,008
(7) SINGAPORE	1,363	1,622	1,976	2,504	2,631	2,781	2,939	3,162	3,397	3,573	3,779
(8) THAILAND	5,407	5,005	6,867	8,058	8,650	9,464	9,580	11,260	12,713	12,520	12,803

Source: Ministry of Health in each country

- (1) *The Health Situation of Indonesia*, Ministry of Health
 (2) Consortium Health Science, Ministry of Education and Culture
 Medical Science, Jakarta, November 1984
 (3) Personnel Bureau 1987
 (4) Personnel Bureau 1989
 (5) Medical Council, Ministry of Health

- (6) Professional Regulation Commissioner, Registered
 (7) *Yearbook of Statistics*, Singapore 1992
 (8) Health Statistics Division, Ministry of Public Health

18-5 Number of Dentists

	1970	1975	1980	1984	1985	1986	1987	1988	1989	1990	1991
BRUNEI							31				27
(1) INDONESIA	452		1,681	2,664	a) 4,237	a) 4,237	a) 4,583	4,907	5,290	5,545	6,176
JAPAN	37,859	43,586	53,602	63,145	NA	66,797	NA	70,572	NA	74,028	NA
(2) b) MALAYSIA		433	691	957	1,041	1,130	1,220	1,288	1,401	1,471	1,501
Peninsular Malaysia	15	9	630	867	949	1,030	1,106	1,183	1,289	1,343	1,359
Sabah			25	40	36	46	51	47	49	56	63
Sarawak			36	50	56	60	63	58	83	72	79
(3) PHILIPPINES	12,174	13,096	15,158	19,652	21,148	22,479	23,724	24,814	26,937	28,204	30,354
(4) SINGAPORE	398	419	485	588	604	632	654	688	740	776	786
THAILAND	683	652	1,169	1,326	1,451	1,395	1,468	1,670	2,107	2,285	2,408

Source: Ministry of Health in each country

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

(2) Dental Council

(3) Professional Regulation Commissioner, Registered (cumulative)

(4) Ministry of Health

Note: a) Personnel Bureau, June, 1987

b) As of December 31

18-6 Number of Pharmacists

	1970	1975	1980	1984	1985	1986	1987	1988	1989	1990	1991
BRUNEI							9				10
⁽¹⁾ INDONESIA	1,486	1,847	3,013	⁽²⁾ 3,926	⁽²⁾ 4,268	4,513	⁽²⁾ 4,814	⁽²⁾ 5,085	5,207	5,399	5,345
JAPAN	79,393	94,362	116,056	129,700	NA	135,990	NA	143,429	NA	150,627	NA
MALAYSIA		258	488	⁽³⁾ 734	⁽³⁾ 843	963	⁽³⁾ 1,050	1,084	1,170	1,239	1,214
Peninsular Malaysia				⁽³⁾ 676	732	828	929	956	1,018	1,125	1,079
Sabah			⁽⁴⁾ 17	⁽³⁾ 29	64	84	64	70	80	45	50
Sarawak				⁽³⁾ 29	47	51	57	58	72	69	85
⁽⁵⁾ PHILIPPINES	19,076	20,838	23,225	25,705	26,440	25,088	27,493	27,732	28,764	29,612	30,971
⁽⁶⁾ SINGAPORE	245	288	368	409	436	454	487	526	557	587	629
⁽⁷⁾ THAILAND	1,407	1,913	2,650	3,312	3,376	2,990	3,622	3,681	3,825	4,163	4,333

Source: Ministry of Health in each country

(1) *The Health Situation of Indonesia*, Ministry of Health(2) Directorate General, Food & Drugs Control,
Ministry of Health

(3) Pharmacy Board, Ministry of Health

(4) *Annual Report, Medical Department, Sabah, 1982*(5) Professional Regulation Commissioner,
Registered (cumulative)(6) *Yearbook of Statistics, Singapore 1992*(7) Health Statistics Division, Ministry of Public
Health

18-7 Number of Midwives

	1970	1975	1980	1984	1985	1986	1987	1988	1989	1990	1991
BRUNEI							185				407
(1) INDONESIA	3,752	10,720	16,472	17,685		22,500		(2) 15,393	(3) 18,439	22,405	29,869
JAPAN	28,087	26,742	25,867	24,649	NA	24,056	NA	23,320	NA	22,918	NA
(4) MALAYSIA							(5) a) 5,256	5,389	5,509	5,492	5,543
Peninsular Malaysia		3,767	(4) 5,002	(4) 5,468	5,673	(5) 3,795	3,819	3,883	3,913	3,921	3,970
Sabah				400			444	472	499	493	511
Sarawak					970		993	1,034	1,089	1,078	1,062
(6) PHILIPPINES	16,082	18,528	42,114	53,717	55,841	57,863	60,169	63,094	66,621	71,092	77,773
(7) SINGAPORE	1,058	930	779	652	623	603	588	569	550	543	529
(8) THAILAND	4,203	6,335	8,669	8,573	7,716	6,279	8,934	11,122	11,354	10,796	10,582

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 1988
- (3) Biro Kepegawaian, Data Jumlah yang bekerja di Depkes
- (4) Nursing Board, Ministry of Health
- (5) Division II, Midwives & Jururawat Desa

(6) Professional Regulation Commissioner, Registered (cumulative)

(7) *Yearbook of Statistics, Singapore 1992*

(8) Health Statistics Division, Ministry of Public Health

Note: a) Government only

18-8 Number of Nurses

	1970	1975	1980	1984	1985	1986	1987	1988	1989	1990	1991
BRUNEI							779				739
(1) INDONESIA		9,856	20,201				20,340	32,977	42,024	50,350	53,308
JAPAN	273,572	361,604	487,169	590,177	NA	639,936	NA	694,999	NA	745,301	NA
(2) MALAYSIA Peninsular Malaysia Sabah Sarawak			15,392	19,971 18,653 695 623	21,036 19,479 779 778	20,170	21,340	22,020	22,752	23,308	23,753
(3) PHILIPPINES	38,918	64,165	114,657	145,235	148,514	151,870	155,747	160,657	165,012	174,112	183,277
(4) SINGAPORE	4,304	5,767	7,545	7,830	8,393	8,570	8,723	8,957	9,237	9,695	10,233
(5) THAILAND	15,387	18,993	18,483	31,827	38,683	40,952	45,038	51,091	36,652	60,672	63,974

Source: Ministry of Health in each country

(1) Personal Bureau, Ministry of Health

(2) Nursing Board, Ministry of Health

(3) Professional Regulation Commissioner, Registered (cumulative)

(4) *Yearbook of Statistics, Singapore 1992*

(5) Health Statistics Division, Ministry of Public Health

19 Situation of Medical Schools

	Academic Year	Number of Medical Schools	Duration of Studies	Total Enrolment	Admissions	Graduates
BRUNEI		—				
(1) INDONESIA	1990	24	6 Years			a) 1,599
(2) JAPAN	1991/92	80	6 Years			b) 7,891
(3) MALAYSIA	1991/1992	3	6 Years	2,105		
(4) PHILIPPINES	1991/1992	26	Pre - Med - 4 Years Proper - 4 Years Intern - 1 Year		2,690	2,328
(5) SINGAPORE	1991/92	1	5 Years	c) 778 d) 60	c) 141 d) 9	c) 178 d) 19
(6) THAILAND	1991	9	6 Years			819

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

Note: a) Data up to July 1986
 b) Those who newly registered physician
 c) Singaporeans
 d) Non - Singaporeans