

SEAMIC HEALTH STATISTICS

1990

Southeast Asian Medical Information Center
International Medical Foundation of Japan
Tokyo

SEAMIC Publication No. 62
ISBN 4-930783- 62-3

©Copyright 1992 by IMFJ

International Medical Foundation of Japan

Toyo-kaiji Bldg. No.6, 7-2 Shimbashi 4-chome,
Minato-ku, Tokyo, Japan, 105

No part of this book shall be translated or reproduced in any form, by photostat, microfilm, or any other means, without written permission from IMFJ, except for inclusion of brief quotations in a review. All right reserved.

Preface

The SEAMIC HEALTH STATISTICS has been published annually since 1979 as part of the SEAMIC activities sponsored by the International Medical Foundation of Japan. 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.

This year's issue follows the same pattern as in the 1989 edition in which certain new features were incorporated. In view of the evolving information needs of users, however, the contents of the publication will continue to be reviewed for improvements. Suggestions from the readers will be welcomed in this regard.

A considerable amount of useful data has accumulated since the first issue of this publication. By presenting the data as time series, both in graphic and tabular forms, a commemorative issue was published in 1991, entitled "Recent Trends in Health Statistics in Southeast Asia---10th Anniversary Issue of the SEAMIC Health Statistics". The readers may wish to consult that commemorative publication together with the annual issues of the SEAMIC HEALTH STATISTICS.

It is regretted that the present issue has had to be postponed for almost a year due to unavoidable reasons. It is hoped that the next issues will gradually catch up with the normal timetable.

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, 1992

Kazuo Uemura
Chairman
Editorial Board
SEAMIC HEALTH STATISTICS

Editorial Board

Hj Md Mahdi bin Hj Abd Rahman (Brunei)

Mr. A. M. Meliala SKM, DSP (Indonesia)

Mr. Chong Yok Ching (Malaysia)

Dr. Zenaida Ludovice (Philippines)

Dr. Shanta C. Emmanuel (Singapore)

Dr. Somsak Chunharas (Thailand)

Dr. Kazuo Uemura (Japan)

Dr. Masaki Shiina (Japan)

Dr. Yutaka Inaba (Japan)

Dr. Seiji Ohsawa (Japan)

Contents

Preface	3
Editorial Board	4
Part I Health Statistics	11
1-1 Population by Sex, Rate of Population Increase, Surface Area and Density	13
1-2 Estimates of Mid-Year Population	14
1-3 Population Estimates and Projections	15
1-4 Population by Age and Sex	16
1-5 Urban and Total Population	18
2-1 Deaths and Death Rates by Age	22
3-1 Ten Leading Causes of Death	24
4-1 Trends in the Leading Causes of Death	26
5-1 Deaths and Death Rates by Causes (ICD-9)	32
6-1 Morbidity Statistics	46
7-1 Seasonal Distribution of Cholera Cases	49
7-2 Seasonal Distribution of Typhoid Fever Cases	50
7-3 Seasonal Distribution of Paratyphoid Fever Cases	51
7-4 Seasonal Distribution of Bacillary Dysentery Cases	52
7-5 Seasonal Distribution of Food Poisoning Cases	53
8-1 Notifiable Infectious Diseases	54
9-1 Infectious Diseases Specified by Immunization Programme	56

10	Explanatory Notes on Vital Statistics	57
10-1	Crude Live-birth Rates	58
10-2	Crude Death Rates	59
10-3	Vital Statistics Rates	60
10-4	Natality, Mortality and Natural Increase	61
11-1	Late Fetal, Infant, Neonatal, Post-neonatal and Perinatal Mortality	63
11-2	Infant Mortality by Age and Sex	64
11-3	Maternal Mortality Rates	65
12-1	Expectation of Life at Specified Ages for Each Sex	66
12-2	Survivors at Specified Ages for Each Sex	68
13-1	Per Capita Food Intake	78
14-1	Socio-Economic Indicators	80
15-1	Family Planning Methods Used	81
16-1	Housing Conditions	82
17-1	Mean Length of Infants from Birth to One Year	83
17-2	Mean Weight of Infants from Birth to One Year	84
17-3	Mean Chest Circumference of Infants from Birth to One Year	85
17-4	Mean Height by Age (1-18 years)	86
17-5	Mean Weight by Age (1-18 years)	88
18	Definitions Used in Hospital Statistics (WHO)	90
18-1	Comparative Table on Medical Establishments	91
18-2	Hospitals and Other Medical Establishments with Beds	92
18-3	Hospital Utilization by Category of Hospital	102
18-4	Number of Hospitals	106

18-5	Number of Beds	107
19	Definition of Medical Personnel (WHO)	108
19-1	Comparative Table on Medical Personnel	111
19-2	Medical and Allied Health Personnel	114
19-3	Population/Health Personnel Ratios	122
19-4	Number of Physicians	123
19-5	Number of Dentists	124
19-6	Number of Pharmacists	125
19-7	Number of Midwives	126
19-8	Number of Nurses	127
20-1	Situation of Medical Schools	128

(Figures)

Fig. 1	Recent Trends in Death Rates	19
Fig. 2	Population Pyramid	20
Fig. 3	Recent Trends in Crude Live-birth Rate	62
Fig. 4	Survivors Specified Ages for Each Sex	70
Fig. 5	Recent Trends in Number of Hospitals	77
Fig. 6	Recent Trends in Number of Beds	99
Fig. 7	Recent Trends in Number of Physicians	100
Fig. 8	Recent Trends in Number of Nurses	101

Part II The Outline of Health Statistics in SEAMIC Countries 129

Sources of Medical and Health Statistics in Negara Brunei Darussalam	131
Sources of Medical and Health Statistics in Indonesia	139
Health Statistics in Japan	149
Health Statistics Information System in Malaysia	172

Health Statistics in the Philippines	178
Source of Medical and Health Statistics in Singapore	185
Health Statistics in Thailand	203
Appendix List of Organizations Related to Health Statistics	213

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 1979-88 (%)	Surface Area 1989 (km ²)	Density 1989 (Persons/km ²)
	Date	Total	Male	Female	Sex Ratio	Persons per Household			
BRUNEI ⁽¹⁾	26 August 1981	192,832	102,942	89,890	114.5	5.8	a) 3.4	5,765	43
INDONESIA ⁽²⁾	Oct. - Nov. 1985	164,629,618	81,934,415	82,695,203	99.1	4.9	(3) b) 2.08	1,919,443	92
JAPAN ⁽⁴⁾	1 October 1985	121,048,923	59,497,316	61,511,607	96.7	3.2	0.6	372,723	329
MALAYSIA ⁽⁵⁾	10 June 1980	13,745,241	6,918,370	6,826,871	101.3	5.4	c) 2.3	329,758	53
Peninsular Malaysia		11,426,813	5,731,116	5,695,497	100.6	5.3	2.2	131,598	109
Sabah		1,011,046	528,255	482,791	109.4	5.5	3.8	73,711	19
Sarawak		1,307,582	658,999	648,583	101.6	5.7	2.4	124,449	13
PHILIPPINES ⁽⁶⁾	1 May 1980	48,098,460	24,128,755	23,969,705	100.7	5.6	c) 2.5	300,000	187
SINGAPORE ⁽⁷⁾	24 June 1980	2,413,945	1,231,760	1,182,185	104.2	4.7	a) 1.2	626	4,287
THAILAND ⁽⁸⁾	1 April 1980	44,824,540	22,328,607	22,495,933	99.2	5.2	d) 1.9	513,000	106.3

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

(2) *Population Projection Indonesia by Province*, Central Bureau of Statistics 1985-1995

(3) *Rate of Population Growth Urban and Rural*, Central Bureau of Statistics

(4) *Japan Statistical Yearbook 1989*, Statistics Bureau, Management and Coordination Agency

(5) *General Report of the Population Census 1980, Vol.1*, Department of Statistics

(6) National Statistics Office

(7) *Census of Population 1980 Singapore Yearbook of Statistics*, Singapore 1989, Department of Statistics

(8) *1980 Population and Housing Census*, National Statistics Office, Office of the Prime Minister

Note: a) Annual rate of increase 1980-1989

b) Annual rate of increase 1985-1990

c) Annual rate of increase 1978-1987

d) Annual rate of increase 1980-1988

1-2 Estimates of Mid-year Population

(in millions)

	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI (1)	a) 0.14	0.16	0.19	0.21	0.22	0.22	b) 0.23	0.23	0.24	0.25
INDONESIA (2)	119.47	130.50	146.36	156.37	159.83	163.37	168.35	172.01	174.68	177.36
JAPAN (3)	103.72	111.94	117.06	119.54	120.31	121.05	121.67	122.26	122.78	122.46
MALAYSIA (4)	10.39	11.90	13.76	14.89	15.27	15.68	16.12	16.53	16.92	17.35
PHILIPPINES (5)	36.68	42.07	48.32	52.06	53.35	54.67	56.00	57.06	58.72	58.72
SINGAPORE (6)	2.07	2.26	2.41	2.50	2.53	2.56	2.59	2.61	2.65	2.69
THAILAND	36.37	41.39	46.52	(7) c) 49.46	(7) c) 50.40	(7) c) 51.68	(7) c) 52.65	53.15	54.54	55.45

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

(2) *Indonesian Population Projection 1980-2000*, Central Bureau of Statistics(3) *Japan Statistical Yearbook 1989*, Statistics Bureau, Management and

Coordination Agency

(4) *Current Population Estimates, Peninsular Malaysia, Sabah and Sarawak-1989*,
Department of Statistics

(5) National Statistics Office

(6) *Yearbook of Statistics Singapore 1989*, Department of Statistics(7) *Report of Working Group on Population Projections*,
Office of the National Economic and Social Develop-
ment Board.

Note : a) For 1981, Population Census

b) Population Survey

c) Estimates based on total population figures, 1980
Population & Housing Census, National Statistical
Office

1-3 Population Estimates and Projections

(in thousands)

	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035
BRUNEI (1)	254	295	337	a) 348.2						
INDONESIA (2)	183,457	202,746	222,753	248,897	276,153	306,394	339,946	384,273		
JAPAN (3) b)	124,225	127,565	131,192	131,247	135,823	135,938	135,304	134,642	128,681	124,890
MALAYSIA (4)	17,444	19,748	22,454							
PHILIPPINES (5)	61,480	68,424	75,224	81,591	87,206	92,430	97,682	102,686	107,123	
SINGAPORE (6)	2,717		2,995		3,151		3,232		3,214	
THAILAND (7)	56,340	60,506	64,389	67,910	70,865	73,208				

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

(2) Based on Population Projection, Central Bureau of Statistics, Indonesia. Calculated by Centre for Health Data

(3) *Future Population for Japan*, Provisionally Prepared in December 1986, 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, Manila

(6) Population Planning Unit, Ministry of Health

(7) *Report of Working Group on Population Projections*, Office of the National Economic and Social Development Board, 1985

Note : a) Year : 2001

b) Population on 1 October

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) BRUNEI	1989	T	249.0	33.4		30.5	26.1	24.1	27.7	26.1	22.8
		M	128.6	17.2		15.6	13.2	11.9	14.0	14.1	11.7
		F	120.4	16.2		14.9	12.9	12.2	13.7	12.0	11.1
(2) INDONESIA	1989	T	179,136.1	23,169.3		21,394.0	21,683.8	19,461.5	16,460.5	14,507.2	12,780.9
		M	89,202.6	11,796.7		10,952.9	11,127.6	98,570.7	8,025.0	6,887.2	6,161.9
		F	89,933.5	11,372.6		10,441.0	10,556.1	9,604.5	8,435.5	7,620.0	6,619.0
(3) JAPAN	1989	T	122,460	6,698		7,559	8,805	9,963	8,729	7,845	7,835
		M	60,171	3,438		3,871	4,513	5,110	4,463	3,979	3,952
		F	62,289	3,260		3,688	4,292	4,853	4,266	3,866	3,883
(4) MALAYSIA	1989	T	17,353	2,432		2,108	1,892	1,805	1,672	1,531	1,254
		M	8,745	1,253		1,085	968	922	848	753	624
		F	8,608	1,180		1,023	924	883	823	778	659
(5) PHILIPPINES	1989	T	57,356.0	1,709.1	6,523.6	7,669.0	6,916.3	6,160.6	5,478.4	4,787.2	4,094.6
		M	28,796.0	875.80	3,309.6	3,913.1	3,559.1	3,159.9	2,720.6	2,299.9	2,004.0
		F	28,560.1	833.4	3,214.0	3,755.9	3,357.2	3,000.7	2,757.8	2,487.3	2,090.6
(6) SINGAPORE	1989	T	2,685.4	52.3	169.1	201.1	197.2	224.9	245.2	293.0	287.6
		M	1,366.4	26.9	87.8	104.7	102.3	116.2	125.6	151.1	147.4
		F	1,319.0	25.4	81.3	96.4	94.9	108.7	119.6	141.9	140.2
(7) THAILAND	1989	T	55,448	6,295		6,357	6,196	6,145	5,907	5,028	4,309
		M	27,754	3,194		3,213	3,144	3,131	3,004	2,539	2,151
		F	27,694	3,101		3,144	3,052	3,014	2,903	2,489	2,158

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

(2) *Population Projection, Indonesia by Province 1985-1995*

Central Bureau of Statistics, p 116-118.

(3) *Vital Statistics 1988*, Ministry of Health and Welfare

(4) *Vital Statistics* Peninsular Malaysia, Sabah & Sarawak - 1989,

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

(in thousands)

Age										
35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
17.1	11.3	8.2	6.3	5.3	3.5	2.7		3.9		
9.1	5.9	4.5	3.4	2.6	1.9	1.6		1.9		
8.0	5.4	3.7	2.9	2.7	1.6	1.1		2.0		
10,448.2	8,643.1	7,551.9	6,512.8	5,395.0	4,261.7	3,136.9	2,107.6		1,603.4	
5,202.6	4,363.6	3,773.0	3,205.4	2,610.7	2,036.7	1,492.3	994.5		715.3	
5,245.7	4,279.5	3,778.9	3,307.4	2,784.3	2,225.0	1,644.6	1,113.1		888.1	
9,466	10,011	9,175	8,018	7,558	6,548	4,874	3,648	2,938	1,725	1,066
4,759	5,022	4,562	3,967	3,706	3,122	2,049	1,507	1,169	643	341
4,708	4,989	4,613	4,052	3,852	3,426	2,825	2,141	1,770	1,082	725
1,075	820	689	585	443	340	278	174	124	100	
534	417	352	294	216	167	130	81	58	44	
541	403	337	291	228	172	149	93	66	57	
3,259.1	2,540.6	2,129.2	1,634.1	1,333.9	1,054.8	816.2	1,249.3			
1,642.2	1,287.1	1,070.8	798.0	662.2	506.6	384.0	603.1			
1,616.9	1,253.5	1,058.3	836.1	671.7	548.2	432.3	646.2			
243.5	185.3	139.5	119.9	97.1	78.2	58.0	42.9	30.2	14.4	6.0
123.9	93.9	70.2	60.1	48.8	39.3	28.5	19.6	13.0	5.5	1.6
119.6	91.4	69.3	59.8	48.3	38.9	29.5	23.3	17.2	8.9	4.4
3,478	2,655	2,193	1,984	1,595	1,237	859	591		619	
1,734	1,332	1,086	957	761	588	402	265		253	
1,744	1,323	1,107	1,027	834	649	457	326		366	

1 - 5 Urban and Total Population

(in thousands)

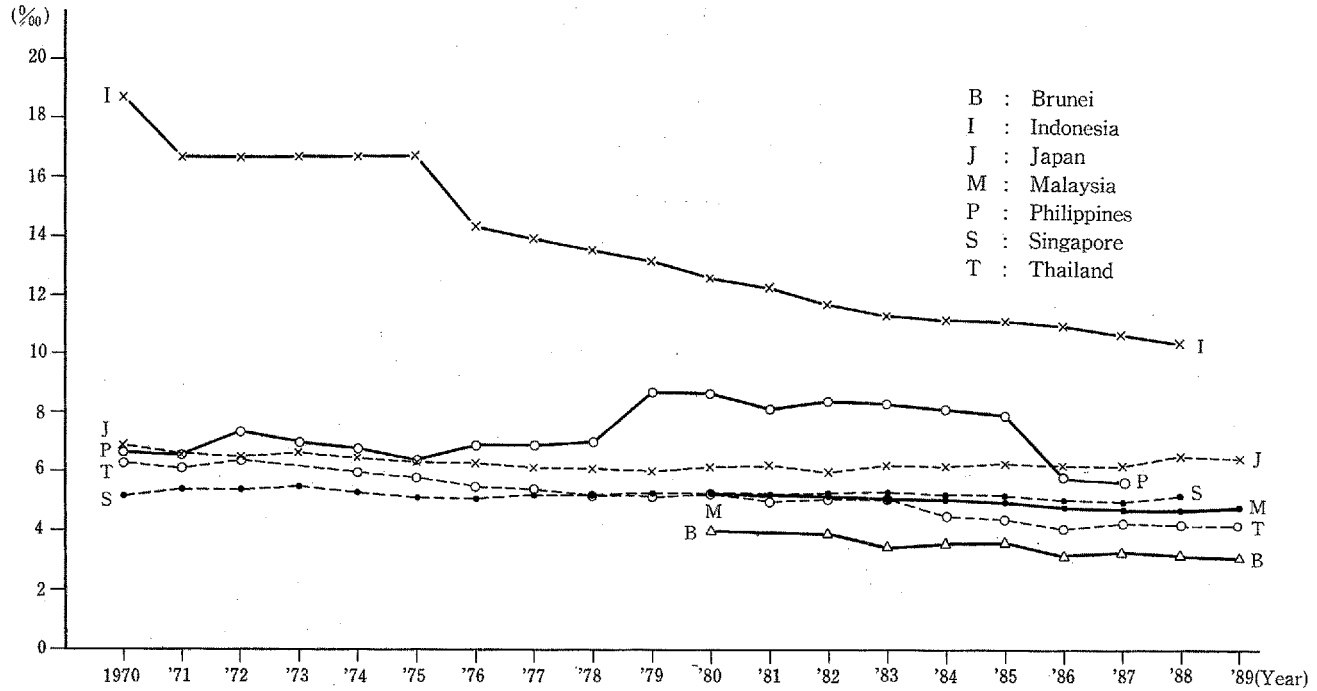
	1960			1970			1980			1985		
	Total	Urban	(%)	Total	Urban	(%)	Total	Urban	(%)	Total	Urban	(%)
BRUNEI (1)	84	37	43.6	a) 136	87	63.6	b) 193	115	59.4	NA	NA	
INDONESIA (2)	c) 97,085	14,358	14.8	119,143	20,733	17.4	146,776	32,846	22.4	(3) d) 175,588	50,456	28.7
JAPAN (4)	94,300	59,698	63.3	104,666	75,429	72.1	117,600	89,187	76.2	121,049	92,889	76.7
MALAYSIA (5)	8,170	2,060	25.2	10,439	2,787	26.7	13,745	4,687	34.1	(6) 15,791	5,912	37.4
Peninsular				8,810	2,530	28.7	11,426	4,250	37.2	12,969	5,326	41.1
Malaysia				653	107	16.7	1,011	208	20.6	1,280	289	22.6
Sabah				975	149	15.4	1,307	230	17.6	1,543	296	19.2
Sarawak												
PHILIPPINES (7)	28,098	8,513	30.3	37,540	12,366	32.9	48,098	17,944	37.3	54,668	21,821	39.9
SINGAPORE (8)	c) 1,446	1,132	78.0	2,075	1,562	75.0	2,414	2,414	100.0	2,558	2,558	100.0
THAILAND	(9) 26,258	3,274	12.5	(10) 34,397	4,553	13.2	(11) 44,824	7,633	17.0	53,870	9,697	18.0

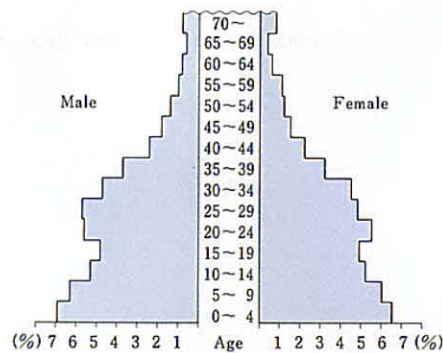
Source : (1) Statistics Section, Economic Planning Unit, Ministry of Finance
 (2) *Population of Indonesia*, Central Bureau of Statistics
 (3) *Statistical Yearbook of Indonesia 1988*, Central Bureau of Statistics p.50-51
 (4) *Japan Statistical Yearbook 1988*, Management and Coordination Agency
 (5) *General Report of the Population Census 1980, Vol. I*, Department of Statistics
 (6) *Fifth Malaysia Plan Report 1986-1990*
 (7) National Statistics Office
 (8) *Report on the Census of Population 1970, Singapore, Vol. I*, Department of Statistics

(9) *1960 Population Census*, Central Statistics Office, National Economic Development Board
 (10) *1970 Population & Housing Census*, National Statistical Office, Office of the Prime Minister
 (11) *1980 Population & Housing Census*, National Statistical Office, Office of the Prime Minister

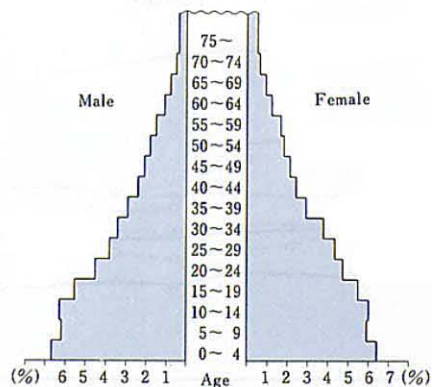
Note : a) For 1971
 b) For 1981
 c) For 1957
 d) For 1988

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

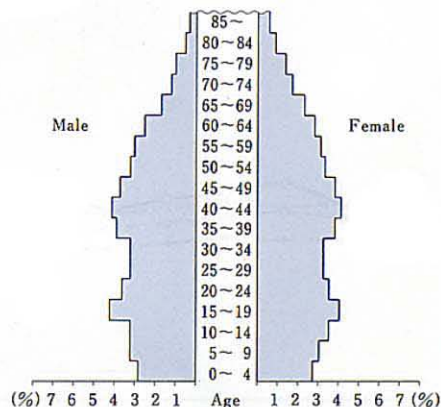




BRUNEI DARUSSALAM 1989

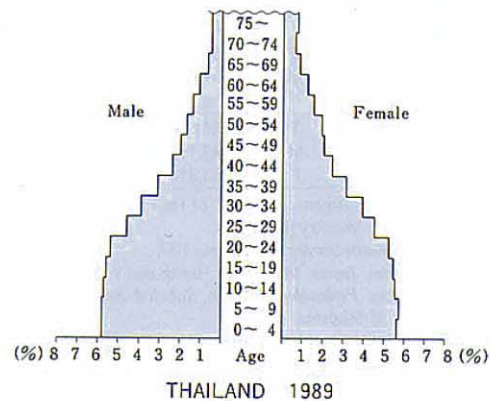
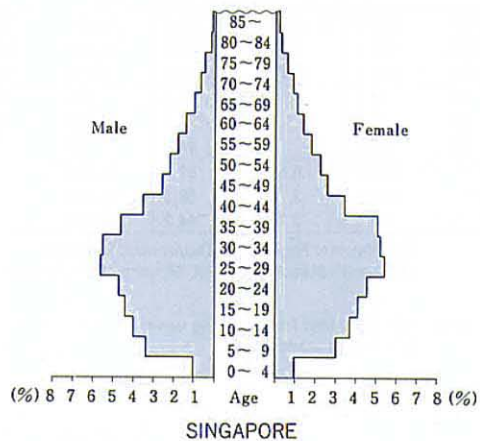
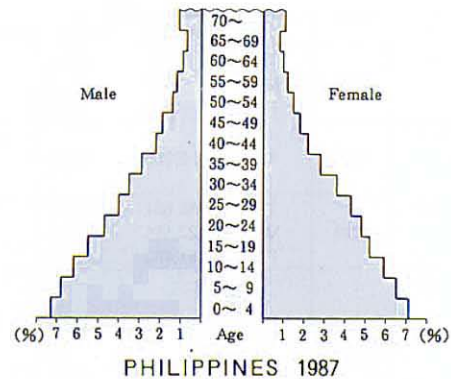
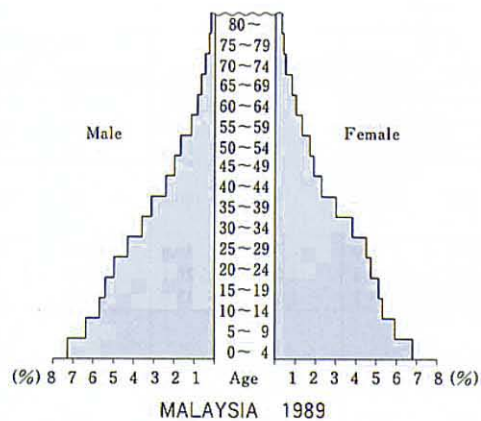


INDONESIA 1989



JAPAN 1989

Fig.2 Population Pyramid



2 - 1 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)	1989	T	827	332.1	77		230.5		21	37.1	42	81.1
		M	498	387.2	44		255.8		20	69.4	31	119.7
		F	329	273.3	33		203.7		1	3.6	11	42.5
INDONESIA (2 a)	1986	T	2,055	703.0	571	7,180.0	324	1,060.0	124	160.0	97	180.0
JAPAN (3)	1989	T	788,594	644.0	5,724	4,59.1	2,408	36.0	2,763	16.9	9,176	49.1
		M	427,114	709.8	3,118	4,86.8	1,387	40.3	1,681	20.1	6,753	70.5
		F	361,480	580.3	2,606	4,29.8	1,021	31.3	1,082	13.5	2,423	26.5
MALAYSIA (4)	1989	T	69,707	487.5	4,948	1,281.3	1,580	100.7	1,677	51.4	2,632	92.1
		T	5,389	379.4	919	1,687.9	330	157.9	224	60.8	236	91.6
		T	6,138	375.9	451	992.4	131	77.2	143	38.9	215	59.7
PHILIPPINES (5)	1987	T	335,254	584.5	50,803	2,972.4	42,469	651.0	17,716	121.5	18,197	156.3
		M	197,275	685.1	29,367	3,353.3	22,485	679.4	9,895	132.4	12,405	210.9
		F	137,979	483.1	21,436	2,572.2	19,984	621.8	7,821	109.9	5,792	100.6
SINGAPORE (6)	1988	T	13,690 b)	517.2	368 b)	771.5	72	44.5	97	24.1	314	64.9
		M	7,585	562.9	194	785.4	36	43.0	50	23.9	220	88.5
		F	6,104	469.6	173	752.2	36	46.2	47	24.3	94	40.0
THAILAND (7)	1989	T	246,570	444.7	12,599		200.1		6,509	51.9	15,553	129.1
		M	143,156	515.8	7,312		228.9		3,769	59.3	11,114	181.2
		F	103,414	373.4	5,287		170.5		2,740	44.2	4,439	75.0

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

(2) Household Health Survey in Indonesia 1986

(3) *Vital Statistics, Japan*, Ministry of Health and Welfare 1989

(4) *Vital Statistics, Peninsular Malaysia, Sabah & Sarawak-1989*, Department of Statistics

(5) *Philippine Health Statistics*, Department of Health 1986, Health Intelligence Service.

(6) National Registration Department, Singapore

(7) Health Statistics Division, Ministry of Public Health

Note : a) Calculated from sampling survey

b) Include 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
56	114.5	54	190.1	72	496.6	103	1,170.5	402			6,090.9		
39	151.2	26	173.3	44	557.0	56	1,244.4	238			6,800.0		
17	73.6	28	209.0	28	424.2	47	1,093.0	164			5,290.2		
98	225.4	109	371.5	181	810.2	186	1,248.2	149	2,048.1	216	6,844.1	—	—
9,492	60.5	23,975	1,23.1	52,967	3,08.1	107,239	758.9	155,304	1,359.1	419,103	7,315.5	443	
6,273	79.1	15,143	1,54.8	34,980	4,10.1	72,672	10,64.3	91,365	2,611.7	193,356	8,980.8	386	
3,219	41.5	8,832	91.1	17,987	2,07.6	34,567	475.6	63,939	1,287.5	225,747	6,311.1	57	
3,128	133.79	3,710	233.4	6,546	610.0	10,406	1,585.8	15,066	3,992.0	19,933	10,429.8	—	
364	162.5	318	239.7	601	685.5	759	1,544.0	855	3,112.0	764	7,835.9	—	
239	94.5	341	197.4	551	486.3	1,030	1,319.6	1,462	3,068.0	1,518	6,410.0	—	
22,643	254.9	22,715	391.7	27,675	735.4	33,039	1,383.3	99,984			4,840.6	13	
15,756	366.1	15,338	523.6	18,381	983.6	21,126	1,807.5	52,514			5,320.4	8	
6,887	150.4	7,377	257.0	9,294	490.6	11,913	976.6	47,470			4,401.5	5	
506	87.6	719	177.5	1,200	475.8	2,306	1,355.7	3,351	3,405.5	4,695	9,660.5	62	
323	108.8	452	220.0	745	588.5	1,485	1,724.7	1,936	4,136.8	2,099	10,875.6	45	
183	65.2	267	133.8	455	362.3	821	977.4	1,415	2,742.2	2,596	8,860.1	17	
17,159	183.8	18,697	304.9	26,955	645.3	37,907	1,338.5	43,360	2,990.3	63,058	10,187.1	4,773	
12,523	267.0	12,315	401.7	16,850	824.8	22,987	1,704.0	24,443	3,664.6	28,956	11,445.1	2,887	
4,636	99.8	6,382	208.1	10,105	473.5	14,920	1,006.1	18,917	2,415.9	34,102	9,317.5	1,886	

3 – 1 Ten Leading Causes of Death

	Year	1	2	3	4	
BRUNEI (1)	1989	Heart Diseases	Malignant Neoplasms	Accidents, Poisoning & Violence	Pneumonia	
INDONESIA (2)	1989	Parasitic and Infectious Diseases	Diarrhoea	Respiratory Diseases	Cardiovascular Diseases	
JAPAN (3)	1989	Malignant Neoplasms	Diseases of Heart	Cerebrovascular Diseases	Pneumonia & Bronchitis	
MALAYSIA (4) a)	Peninsular Malaysia	1989	Heart Diseases and Diseases of Pulmonary Circulation	Certain Conditions Originating in the Perinatal Period	Cerebrovascular Diseases	Accidents
	Sabah	1989	Certain Conditions Originating in the Perinatal Period	Heart Diseases and Diseases of Pulmonary Circulation	Pneumonia	Septicaemia
	Sarawak	1989	Heart Diseases and Diseases of Pulmonary Circulation	Certain Conditions Originating in the Perinatal Period	Malignant Neoplasms	Cerebrovascular Diseases
PHILIPPINES (5)	1987	Pneumonia	Heart Diseases	Diseases of the Vascular System	Tuberculosis, All Forms	
SINGAPORE (6)	1989	Cancer	Diseases of Heart	Cerebrovascular Diseases	Pneumonia	
THAILAND (7) b)	1989	Diseases of Pulmonary Circulation and Other Forms of Heart Diseases	Other Accident, 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 1989

(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
Hypertensive Diseases	Bronchitis, Emphysema and Asthma	Septicaemia	Cerebrovascular Diseases	Congenital Anomalies	Conditions Originating in the Perinatal Period
Tuberculosis	Certain Conditions Originating in the Perinatal Period	Injuries and Accidents	Diseases of Digestive System	Neoplasms	Diseases of Nervous System
Accidents, Poisoning and Violence	Suicide	Chronic Liver Diseases & Cirrhosis of Liver	Nephritis, Nephrotic Syndrome & Nephrosis	Hypertensive Diseases	Diabetes Mellitus
Malignant Neoplasms	Septicaemia	Nephritis, Nephrotic Syndrome and Nephrosis	Congenital Anomalies	Symptoms, Signs and Ill-defined Conditions	Pneumonia
Malignant Neoplasms	Cerebrovascular Diseases	Accidents	Tuberculosis	Nephritis, Nephrotic Syndrome and Nephrosis.	Symptoms, Signs and Ill-defined Conditions
Septicaemia	Accidents	Pneumonia	Tuberculosis	Congenital Anomalies	Symptoms, Signs and Ill-defined Conditions.
Malignant Neoplasms	Measles	Accidents	Diarrheal Diseases	Avitaminosis and Other Nutritional Deficiency	Nephritis, Nephrotic Syndrome & Nephrosis
Accidents	Diabetes Mellitus	Nephritis and Nephrosis	Bronchitis, Emphysema and Asthma	Congenital Anomalies	Septicaemia
Diseases of Respiratory System Other than the Upper Respiratory Tract	Transport Accidents	Cerebrovascular Diseases	Diseases of Nervous System	Homicide and Injury Purposely Inflicted by Other Persons	Tuberculosis

4-1 Trends in the Leading Causes of Death (1)

[Brunei Darussalam]

Year		1980	1981	1982	1983	1984	1985	1986	1987	1988
Order	Cause of Death	1980	1981	1982	1983	1984	1985	1986	1987	1988
No.1	Cause of Death	Accidents, Poisoning & Violence	Diseases of Heart	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence	Accidents, Poisoning & Violence	Malignant Neoplasms
	Death Rate per 100,000 Population	36.2	38.4	43.0	31.7	32.0	37.0	39.8	40.2	43.1
No.2	Cause of Death	Diseases of Heart	Accidents, Poisoning & Violence	Malignant Neoplasms	Malignant Neoplasms	Malignant Neoplasms	Diseases of Heart	Malignant Neoplasms	Malignant Neoplasms	Diseases of Heart
	Death Rate per 100,000 Population	34.0	38.4	35.0	25.5	26.4	32.4	27.0	35.5	35.6
No.3	Cause of Death	Malignant Neoplasms	Malignant Neoplasms	Diseases of Heart	Diseases of Heart	Diseases of Heart	Malignant Neoplasms	Diseases of Heart	Diseases of Heart	Accidents, Poisoning & Violence
	Death Rate per 100,000 Population	32.4	25.4	30.0	24.5	26.4	28.8	24.3	32.1	29.8
No.4	Cause of Death	Certain Condition Originating in the Perinatal Period	Certain Condition Originating in the Perinatal Period	Cerebro-vascular Diseases	Pneumonia	Cerebro-vascular Diseases	Cerebro-vascular Diseases	Cerebro-vascular Diseases	Cerebro-vascular Diseases	Cerebro-vascular Diseases
	Death Rate per 100,000 Population	28.6	19.7	27.0	15.4	16.2	18.0	19.4	15.0	17.8
No.5	Cause of Death	Cerebro-vascular Diseases	Cerebro-vascular Diseases	Pneumonia	Cerebro-vascular Diseases	Congenital Anomalies	Pneumonia	Pneumonia	Bronchitis Emphysema & Asthma	Diabetes Mellitus
	Death Rate per 100,000 Population	23.8	19.2	14.0	13.0	13.0	13.1	12.4	12.8	12.4

Source : Ministry of Health, Brunei

4-1 Trends in the Leading Causes of Death (2)

[Indonesia]

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

Source : Household Health Survey in Indonesia

4-1 Trends in the Leading Causes of Death (3)

[Japan]

Year		1899	1920	1930	1940	1950	1960	1970	1980	1985	1988	1989
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	168.4	173.6
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	129.4	128.1
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	105.5	98.5
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	51.6	52.7
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	24.8	25.4

Source : Ministry of Health and Welfare

[Philippines]

4-1 Trends in the Leading Causes of Death (4)

Year Order		1960	1965	1970	1975	1980	1982	1983	1984	1985	1986	1987
No.1	Cause of Death	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Pneumonia
	Death Rate per 100,000 Population	100.4	83.4	118.2	102	93.6	89.3	93.6	86.4	96.7	90.4	91.9
No.2	Cause of Death	Tuberculosis (All forms)	Respiratory Tuberculosis	Tuberculosis (All forms)	Tuberculosis (All forms)	Diseases of Heart	Diseases of Heart	Diseases of Heart	Diseases of Heart	Diseases of Heart	Diseases of Heart	Diseases of Heart
	Death Rate per 100,000 Population	92.1	83.4	80.1	69.2	60.8	72.5	62.6	58.9	66.3	69.9	67.7
No.3	Cause of Death	Gastro-enteritis & Colitis	Gastro-enteritis & Colitis	Diseases of Vascular System	Diseases of Heart	Tuberculosis (All forms)	Tuberculosis (All forms)	Tuberculosis (All forms)	Tuberculosis (All forms)	Tuberculosis (All forms)	Tuberculosis (All forms)	Diseases of Vascular System
	Death Rate per 100,000 Population	60.5	46	35.8	56.6	59.6	55.7	55	52.6	57.9	54.6	52.1
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	Diseases of Vascular System	Diseases of Vascular System	Diseases of Vascular System	Tuberculosis (All forms)
	Death Rate per 100,000 Population	57.2	43.1	35	31.8	43.8	42.4	51.9	51	49.7	52.5	50.0
No.5	Cause of Death	Beri-beri	Beri-beri	Diseases of Heart	Malignant Neoplasms	Diarrhoea	Diarrhoea	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	33.1	34.6	33.3	33.2	32.6	35.5

Source : *Philippine Health Statistics, 1960-1987*, Health Intelligence Service

[Singapore]

4-1 Trends in the Leading Causes of Death (5)

Year		1950	1955	1960	1970	1980	1985	1986	1987	1988	1989 (a)
Order											
No.1	Cause of Death	Tuberculosis	Pneumonia	Cancer	Cancer	Diseases of Heart	Diseases of Heart	Diseases of Heart	Cancer	Diseases of Heart	Cancer
	Death Rate per 100,000 Population	145	79	62	77	111	118	113	120	121	120
No.2	Cause of Death	Infantile Convulsions	Tuberculosis	Pneumonia	Diseases of Heart	Cancer	Cancer	Cancer	Diseases of Heart	Cancer	Diseases of Heart
	Death Rate per 100,000 Population	133	76	56	76	106	113	112	119	121	113
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
	Death Rate per 100,000 Population	131	56	49	50	60	55	52	51	60	56
No.4	Cause of Death	Gastro-enteritis	Gastro-enteritis	Tuberculosis	Accidents	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Cerebro-vascular Disease	Pneumonia
	Death Rate per 100,000 Population	108	54	39	41	47	50	42	38	58	40
No.5	Cause of Death	Diseases of Early Infancy	Cancer	Gastro-enteritis	Pneumonia	Accidents	Accidents	Accidents	Accidents	Accidents	Diabetes Mellitus
	Death Rate per 100,000 Population	79	50	33	41	37	42	40	36	43	15

Source : National Registration Department

(a) Preliminary

4-1 Trends in the Leading Causes of Death (6)

[Thailand]		Year										
Order		1930	1940	1950	1960	1970	1980	1985	1986	1987	1988	1989
No.1	Cause of Death	Malaria	Malaria	Malaria	Gastro-enteritis	Accidents	Accidents	Diseases of Heart	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	37.4	40.3	42.1	47.5
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	Malignant Neoplasms	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	27.9	19.8	18.7	21.5
No.3	Cause of Death	T.B. of Respiratory System	Dysentery	Gastro-enteritis	Pneumonia	Diarrhoea	Malignant Neoplasms	Malignant Neoplasms	Accident and Poisoning	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	24.8	17.8	18.7	20.2
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	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	9.8	16.4	18.7	19.1
No.5	Cause of Death	Pneumonia	Pneumonia	Dysentery	Diseases of Heart	Pneumonia	Pneumonia	Pneumonia	Pneumonia	Diseases of Respiratory System Other than the Upper Respiratory Tract		
	Death Rate per 100,000 Population	22	48.7	32.8	19	14.8	10	7.4	6.3	12.6	12.6	13.8

Source : Health Statistics Division, Ministry of Public Health

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

	Year	Sex	All Causes		01-07		010		011		012, 014	
					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	1989	T	(b) 770	300.2	21	8.2	—	—	—	—	—	—
		M	444	335.3	15	11.3	—	—	—	—	—	—
		F	325	261.9	6	4.8	—	—	—	—	—	—
(2) a) INDONESIA	1989	T	4,898									
		M	2,845									
		F	2,053									
(3) JAPAN	1989	T	788,594	632.5	11,145	8.9	—	—	—	—	4	0.0
		M	427,114	666.8	6,665	10.4	—	—	—	—	2	0.0
		F	361,480	596.2	4,480	7.4	—	—	—	—	2	0.0
Peninsular												
(4) a) MALAYSIA	1988	T	25,917	185.4	1,507	10.8	2	0.0	6	0.0	4	0.0
Sabah		T	3,654	266.7	666	48.6	5	0.4	5	0.4	—	—
Sarawak		T	2,134	134.0	147	9.2	1	0.1	—	—	—	—
(5) PHILIPPINES	1988	T	325,098	— 553.6	55,509	94.5	—	—	1,356	2.3	877	1.5
		M	192,044	— 651.3	33,408	113.3	—	—	778	2.6	505	1.7
		F	133,054	— 455.1	22,101	75.6	—	—	578	2.0	372	1.3
(6) SINGAPORE	1988	T	13,690	517.2	430	16.2	—	—	1	0.0	1	0.0
		M	7,585	562.9	245	18.2	—	—	—	—	1	0.1
		F	6,104	469.6	185	14.2	—	—	1	0.1	—	—
(7) THAILAND	1989	T	246,570	444.7	12,989	23.4	30	0.1	46	0.1	51	0.1
		M	143,156	515.8	7,754	27.9	16	0.1	26	0.1	31	0.1
		F	103,414	373.4	5,235	18.9	14	0.1	20	0.1	20	0.1

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) Information and Documentation System Unit, Ministry of Health

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

(6) Department of Statistics, Singapore

(7) Ministry of Public Health (official data)

Note : a) Government hospital only

b) Include unknown sex

c) Include tuberculosis of other forms

(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		Septicaemia	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1	0.4	7	2.7	—	—	—	—	—	—	—	—	—	—	11	4.3
1	0.8	5	3.8	—	—	—	—	—	—	—	—	—	—	7	5.3
—	—	2	1.6	—	—	—	—	—	—	—	—	—	—	4	3.2
155	—	261	—	8	—	—	—	3	—	—	—	107	—	72	—
86	—	164	—	6	—	—	—	1	—	—	—	72	—	36	—
69	—	97	—	2	—	—	—	2	—	—	—	35	—	36	—
665	0.5	3,345	2.7	182	0.1	—	—	1	0.0	2	0.0	11	0.0	3,227	2.6
271	0.4	2,572	4.0	104	0.1	—	—	1	0.0	2	0.0	6	0.0	1,478	2.3
394	0.6	773	1.3	78	0.1	—	—	—	—	—	—	5	0.0	1,749	2.9
105	0.8	348	2.5	51	0.4	4	0.0	1	0.0	3	0.0	10	0.1	847	6.1
76	5.6	108	(c) 7.9	—	—	—	—	—	—	—	—	11	0.8	317	23.1
—	—	28	(c) 1.8	—	—	—	—	—	—	—	—	2	0.1	107	6.7
8,278	14.1	26,345	44.9	675	1.1	186	0.3	14	0.0	87	0.1	1,069	1.8	4,694	8.0
4,757	16.1	16,785	56.9	392	1.3	111	0.3	5	0.0	41	0.1	747	2.5	2,617	8.9
3,521	12.0	9,560	32.7	283	1.0	75	0.3	9	0.0	46	0.2	322	1.1	2,077	7.1
23	0.9	151	5.7	17	0.6	—	—	—	—	2	0.1	—	—	183	6.9
9	0.7	116	8.6	5	0.4	—	—	—	—	2	0.1	—	—	80	5.9
14	1.1	35	2.7	12	0.9	—	—	—	—	—	—	—	—	103	7.9
1,531	2.8	4,151	7.5	67	0.1	59	0.1	9	0.0	1	0.0	270	0.5	3,294	5.9
863	3.1	2,768	1.0	47	0.2	41	0.2	7	0.0	1	0.0	147	0.5	1,710	6.2
668	2.4	1,383	5.0	20	0.1	18	0.1	2	0.0	—	—	123	0.4	1,584	5.7

5-1 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		1989	T M F	— — —		— — —		— — —		— — —		— — —	
INDONESIA		1989	T M F	19 10 9				5 2 3					
JAPAN		1989	T M F	56 30 26	0.0 0.0 0.0	— — —		34 20 14	0.0 0.0 0.0	1,153 640 513	0.9 1.0 0.8	— — —	
MALAYSIA		1988	T	21	0.2	—		5	0.0	11	0.1	—	
Peninsular Malaysia			T	—	—	—		57	4.2	—	—	—	
Sabah Sarawak			T	6	0.4	—		—	—	—	—	—	
PHILIPPINES		1988	T M F	301 176 125	0.5 0.6 0.4	40 24 16	0.1 0.1 0.1	7,775 4,076 3,699	13.2 13.8 12.7	825 523 302	1.4 1.8 1.0	438 280 158	0.7 0.9 0.5
SINGAPORE		1988	T M F	6 4 2	0.2 0.3 0.2	— — —		— — —		20 12 8	0.8 0.9 0.6	— — —	
THAILAND		1989	T M F	67 43 24	0.1 0.2 0.1	43 29 14	0.1 0.1 0.1	22 12 10	0.0 0.0 0.0	2 1 1	0.0 0.0 0.0	158 104 54	0.3 0.4 0.2

(rate per 100,000 population)

184						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
		—		—		—		—		—		—		2	0.8
		—		—		—		—		—		—		2	1.5
		—		—		—		—		—		—		—	
								35		39		1		3	
								28		15		—		3	
								7		24		1		—	
4	0.0	—		—		7	0.0	345	0.3	2	0.0	40	0.0	2,068	1.7
2	0.0	—		—		4	0.0	171	0.3	2	0.0	28	0.0	1,333	2.1
2	0.0	—		—		3	0.0	174	0.3	—		12	0.0	735	1.2
—				2	0.0	3	0.0	41	0.3	18	0.1	3	0.0	22	0.2
—				—		—		64	4.7	—		—		23	1.7
—		—		—		—		2	0.1	—		—		1	0.1
—		300	0.5	—		37	0.1	242	0.4	1,176	2.0	9	0.0	785	1.3
—		159	0.5	—		21	0.1	142	0.5	770	2.6	2	0.0	497	1.7
—		141	0.5	—		16	0.1	100	0.3	406	1.4	7	0.0	268	1.0
—		—		—		—		14	0.5	5	0.2	3	0.1	4	0.2
—		—		—		—		6	0.4	5	0.4	3	0.2	2	0.1
—		—		—		—		8	0.6	—		—		2	0.2
—		601	1.1	—		3	0.0	15	0.0	1,386	2.5	21	0.0	1,162	2.1
—		283	1.0	—		2	0.0	9	0.0	914	3.3	15	0.0	685	2.5
—		318	1.1	—		1	0.0	6	0.0	472	1.7	6	0.0	477	1.7

5-1 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	1989	T	94	36.6	9	3.5	4	1.6	2	0.8	1	0.4
		M	44	33.2	4	3.0	2	1.5	1	0.8	—	—
		F	50	40.3	5	4.0	2	1.6	1	0.8	1	0.8
INDONESIA	1989	T			5		5		9		47	
		M			4		5		5		29	
		F			1		—		4		18	
JAPAN	1989	T	212,625	173.6	48,225	39.4	14,645	11.7	9,018	7.2	23,085	18.5
		M	127,211	211.4	30,271	50.3	7,274	11.4	5,352	8.3	17,040	26.6
		F	85,414	137.1	17,954	28.8	7,371	12.2	3,666	6.0	6,045	10.0
MALAYSIA Peninsular Malaysia Sabah Sarawak	1988	T	2,851	20.4	241	1.7	127	0.9	98	0.7	221	1.6
		T	244	17.8	19	1.4	3	0.2	6	0.4		
		T	107	6.7	16	1.0	8	0.5	4	0.3		
PHILIPPINES	1988	T	21,184	36.1	1,350	2.3	242	0.4	519	0.9		
		M	11,436	38.8	754	2.6	125	0.4	285	1.0		
		F	9,748	33.3	596	2.0	117	0.4	234	0.8		
SINGAPORE	1988	T	3,194	120.7	368	13.9	274	10.4	118	4.5	79	3.0
		M	1,860	138.0	205	15.2	138	10.2	71	5.3	63	4.7
		F	1,334	102.6	163	12.5	136	10.5	47	3.6	16	1.2
THAILAND	1989	T	20,385	36.8	352	0.6	702	1.3	12	0.0	3,552	6.4
		M	11,792	42.5	207	0.7	413	1.5	5	0.0	2,466	8.9
		F	8,593	31.0	145	0.5	289	1.0	7	0.0	1,086	3.9

(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
21	8.2	7	2.7	3	1.2	2	0.8	35	13.6	4	1.6	6	2.3	—	—
12	9.1	..	..	..	..	..	..	19	14.4	2	1.5	4	3.0	—	—
9	7.3	7	5.6	3	2.4	2	1.6	16	12.9	2	1.6	2	1.6	—	—
26	..	..	..	..	..	..	..	57	..	27	..	15	..	48	..
19	..	..	..	..	..	..	..	33	..	16	..	10	..	25	..
7	..	14	..	12	..	3	..	24	..	11	..	5	..	23	..
35,477	28.4	5,746	4.7	1,811	1.5	2,599	21	59,175	47.9	5,776	4.7	6,868	5.5	330	0.3
25,870	40.4	..	..	..	..	..	..	34,071	53.2	3,397	5.6	3,936	6.1	133	0.2
9,607	15.8	5,746	9.2	1,811	3.0	2,599	4.3	25,104	41.4	2,379	3.8	2,932	4.8	197	0.3
550	3.9	160	1.1	129	0.9	21	0.2	1,008	7.2	199	1.4	97	0.7	100	0.7
57	4.2	9	0.7	8	0.6	..	..	128	9.3	14	1.0	—	..	—	..
35	2.2	3	0.2	4	0.3	4	0.3	5	0.3	19	1.2	9	0.6	16	1.0
3,157	5.4	1,432	2.4	376	0.6	938	1.6	11,122	18.9	1,548	2.6	372	0.6	128	0.2
2,285	7.7	..	..	..	..	..	..	6,891	23.4	813	2.8	228	0.8	55	0.2
872	3.0	1,432	4.9	376	1.3	938	3.2	4,231	14.5	735	2.5	144	0.5	73	0.2
713	26.9	170	6.4	97	3.7	36	1.4	1,138	43.0	104	3.9	97	3.7	39	1.5
507	37.6	..	..	..	..	..	..	752	55.8	67	5.0	57	4.2	15	1.1
206	15.8	170	13.1	97	7.5	36	2.8	386	29.7	37	2.8	40	3.1	24	1.8
1,455	2.6	283	0.5	207	0.4	413	0.7	12,639	22.8	598	1.1	172	0.3	—	..
1,019	3.7	..	..	..	..	..	..	7,247	26.1	328	1.2	107	0.4	—	..
436	1.6	283	1.0	207	0.7	413	1.5	5,392	19.5	270	1.0	65	0.2	—	..

5-1 Deaths and Death Rates by Causes (ICD-9) (4)

	Year	Sex	181		180, 182 183 189		19		200		209	
			Diabetes Melitus		Other Endocrine and Metabolic Diseases		Nutritional Deficiencies		Anaemias		Other Diseases of Blood and Blood-forming Organs	
			Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
BRUNEI	1989	T	27	10.5	4	1.6	2	0.8	2	0.8	—	—
		M	15	11.3	2	1.5	2	1.5	2	1.5	—	—
		F	12	9.7	2	1.6	—	—	—	—	—	—
INDONESIA	1989	T	82	—	27	—	6	—	51	—	6	—
		M	42	—	12	—	—	—	19	—	1	—
		F	40	—	15	—	6	—	32	—	5	—
JAPAN	1989	T	9,221	7.5	2,337	1.9	454	0.4	1,577	1.3	2,029	1.6
		M	4,399	7.3	1,084	1.7	235	0.4	701	1.2	1,037	1.6
		F	4,812	7.7	1,263	2.1	219	0.4	876	1.4	992	1.6
MALAYSIA Peninsular Malaysia Sabah Sarawak	1988	T	448	3.2	71	0.5	33	0.2	89	0.6	78	0.6
		T	15	1.1	—	—	3	0.2	22	1.6	—	—
		T	12	0.8	45	2.8	4	0.3	4	0.3	1	0.1
PHILIPPINES	1988	T	3,194	5.4	3,502	6.0	4,497	7.7	2,298	3.9	392	0.7
		M	1,448	4.9	1,958	6.6	2,357	8.0	1,172	4.0	215	0.7
		F	1,744	6.0	1,544	5.3	2,140	7.3	1,126	3.9	177	0.6
SINGAPORE	1988	T	501	18.9	17	0.6	7	0.3	20	0.8	15	0.6
		M	189	14.0	9	0.7	3	0.2	8	0.6	6	0.4
		F	312	24.0	8	0.6	4	0.3	12	0.9	9	0.7
THAILAND	1989	T	2,564	4.6	172	0.3	368	0.7	326	0.6	93	0.2
		M	1,062	3.8	79	0.3	187	0.7	161	0.6	58	0.2
		F	1,502	5.4	93	0.3	181	0.7	165	0.6	35	0.1

(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 Ischaemic Heart Diseases	
Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
—	—	—	—	10	3.9	209	81.5	1	0.4	30	11.7	74	28.8	26	10.1
—	—	—	—	6	4.5	135	102.0	—	—	19	14.4	50	37.8	19	14.4
—	—	—	—	4	3.2	74	55.9	1	0.9	11	8.9	24	19.3	7	5.6
18	—	80	—	217	—	—	—	23	—	68	—	77	—	31	—
12	—	54	—	109	—	—	—	5	—	42	—	59	—	18	—
6	—	26	—	108	—	—	—	18	—	26	—	18	—	13	—
2,939	2.4	494	0.4	5,000	4.1	156,831	128.1	1,378	1.1	9,271	7.6	30,446	24.9	18,358	15.0
1,298	2.2	266	0.4	2,649	4.4	77,901	129.5	440	0.7	3,486	5.8	16,951	28.2	8,877	14.8
1,641	2.6	228	0.4	2,351	3.8	78,930	126.7	938	0.5	5,785	9.3	13,495	21.7	9,481	15.2
32	0.2	163	1.2	325	2.3	7,741	55.4	126	0.9	176	1.3	2,650	19.0	384	2.7
—	—	57	4.2	—	—	874	49.2	1	0.1	3	0.2	198	14.5	12	0.9
3	0.2	16	1.0	19	1.2	805	50.5	5	0.3	40	2.5	104	6.5	5	0.3
428	0.7	2,603	4.4	2,789	4.7	72,070	122.7	2,141	3.6	14,150	24.1	12,092	20.6	4,711	8.0
317	1.1	1,440	4.9	1,566	5.3	41,105	139.4	966	3.3	8,153	27.6	7,868	26.7	2,473	8.4
111	0.4	1,163	4.0	1,223	4.2	30,965	105.9	1,175	4.0	5,997	20.5	4,224	14.4	2,238	7.7
15	0.6	22	0.8	111	4.2	4,847	163.1	72	2.7	338	12.8	1,718	64.9	764	28.9
6	0.4	13	1.0	55	4.1	2,582	191.6	21	1.6	168	12.5	1,003	74.4	458	34.0
9	0.7	9	0.7	56	4.3	2,265	174.3	51	3.9	170	13.1	715	55.0	306	23.5
525	0.9	421	0.8	5,153	9.3	38,464	69.4	247	0.4	2,226	4.0	459	0.8	542	1.0
454	1.6	292	1.1	3,086	11.1	23,265	83.8	119	0.4	1,321	4.8	296	1.1	344	1.2
71	0.3	129	0.5	2,067	7.5	15,199	54.9	128	0.5	905	3.3	163	0.6	198	0.7

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

			28		29		300		301-305, 309		310-312	
	Year	Sex	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	1989	T	39	15.2	37	14.4	1	0.4	1	0.4	—	—
		M	21	15.9	24	18.1	1	0.8	1	0.8	—	—
		F	18	14.5	13	10.5	—	—	—	—	—	—
INDONESIA	1989	T			429		—		9		3	
		M			241		—		5		2	
		F			188		—		4		1	
JAPAN	1989	T	106,686	87.1	120,652	98.5	2,358	1.9	5,204	4.2	810	0.6
		M	51,649	85.8	56,938	94.6	1,005	1.6	3,283	5.1	333	0.5
		F	55,037	88.4	63,714	102.3	1,353	2.2	1,941	3.2	477	0.8
MALAYSIA Peninsular Malaysia Sabah Sarawak	1988	T	2,018	15.1	2,128	15.2	4	0.0	165	1.2	1	0.0
		T		30.9	246	18.0	—		214	15.6		
		T	492	30.9	149	9.4	—		10	0.6	1	0.1
PHILIPPINES	1988	T	19,424	33.1	16,710	28.5	2,167	3.7	675	1.1	131	0.2
		M	10,568	35.8	9,649	32.7	976	3.3	452	1.5	77	0.3
		F	8,856	30.3	7,061	24.2	1,191	4.1	223	0.8	54	0.2
SINGAPORE	1988	T	427	16.1	1,414	53.4	16	0.6	98	3.7	2	0.1
		M	230	17.1	639	47.4	6	0.4	57	4.2	1	0.1
		F	197	15.2	775	59.6	10	0.8	41	3.2	1	0.1
THAILAND	1989	T	26,207	47.3	5,740	10.4	—		3,043	5.5	279	0.5
		M	15,866	57.2	3,489	12.6	—		1,830	6.6	162	0.6
		F	10,341	37.3	2,251	8.1	—		1,213	4.4	117	0.4

(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
1	0.4	26	10.1	—		12	4.7	35	13.6	1	0.4	3	1.2	6	2.3
—		14	10.6	—		7	5.3	22	16.6	1	0.8	1	0.8	2	1.5
1	0.8	12	9.7	—		5	4.0	13	10.5	—		2	1.6	4	3.2
10		269		1		69		79						204	
7		151		1		44		53						128	
3		118		—		25		26						76	
1,371	1.1	58,963	47.3	121	0.1	13,981	11.2	12,685	10.2	3,665	2.9	16,713	13.4	17,662	14.2
644	1.0	33,470	52.2	56	0.1	9,057	14.1	8,190	12.8	1,995	3.1	11,360	17.3	8,655	13.5
727	1.2	25,493	42.0	65		4,924	0.1	4,495	7.4	1,670	2.8	5,353	8.8	8,707	14.4
8	0.1	762	5.5	1	0.0	210	1.5	1,080	7.7	80	0.6	237	1.7	748	5.4
—		251	18.3	—		32	2.3			10	0.7	16	1.2		
—		26	1.6	2	0.1	12	0.8	78	4.9	4	0.3	2	0.1	54	3.4
1,307	2.2	47,444	80.8	791	1.3	7,267	12.4	6,280	10.7	5,595	9.5	2,593	4.4	5,183	8.8
724	2.5	25,434	86.3	439	1.5	4,459	15.1	3,195	10.8	3,873	13.1	2,068	7.0	3,598	12.2
583	2.0	22,010	75.3	352	1.2	2,808	9.6	3,085	10.6	1,722	5.9	525	1.8	1,585	5.4
1	0.0	1,039	39.3	8	0.3	215	8.1	845	31.9	75	2.8	162	6.1	143	5.4
—		508	37.7	3	0.2	117	8.7	582	43.2	42	3.1	115	8.5	88	6.5
1	0.1	531	40.9	5	0.4	98	7.5	263	20.2	33	2.5	47	3.6	55	4.2
2	0.0	3,902	7.0	186	0.3	1,006	1.8	2,526	4.6	766	1.4	4,801	8.7	4,981	9.0
1	0.0	2,380	8.6	109	0.4	683	2.5	1,658	6.0	490	1.8	3,381	12.2	3,226	11.6
1	0.0	1,522	5.5	77	0.3	323	1.2	868	3.1	276	1.0	1,420	5.1	1,755	6.3

5-1 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	1989	T	11	4.3	1	0.4	—	—	—	—	—	—
		M	6	4.5	—	—	..	..	..	..	..	..
		F	5	4.0	1	0.8	—	—	—	—	—	—
INDONESIA	1989	T	136	—	18	—	10	—	40	—	9	—
		M	87	—	5	—	..	..	..	..	..	..
		F	49	—	13	—	10	—	40	—	9	—
JAPAN	1989	T	16,420	13.2	2,229	1.8	10	0.0	71	0.1	18	0.0
		M	8,022	12.5	901	1.4	..	..	..	..	..	..
		F	8,398	13.9	1,328	2.2	10	0.0	71	0.1	18	0.0
MALAYSIA Peninsular Malaysia Sabah Sarawak	1988	T	760	5.4	46	0.3	10	0.1	55	0.4	—	—
		T	99	7.2	—	—	2	0.2	6	0.4	—	—
		T	52	3.3	—	—	1	0.1	4	0.3	—	—
PHILIPPINES	1988	T	4,930	8.4	1,463	2.5	146	0.2	1,599	2.7	—	—
		M	2,949	10.0	799	2.7	..	..	..	..	..	..
		F	1,981	6.8	664	2.3	146	0.5	1,599	5.5	—	—
SINGAPORE	1988	T	253	9.6	127	4.8	1	0.0	5	0.2	—	—
		M	111	8.2	42	3.1	..	..	..	..	..	..
		F	142	10.9	85	6.5	1	0.1	5	0.4	—	—
THAILAND	1989	T	3,957	7.1	402	0.7	42	0.1	160	0.3	4	0.0
		M	2,152	7.8	243	0.9	..	..	..	..	..	..
		F	1,805	6.5	159	0.6	42	0.2	160	0.6	4	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 Musculoskeletal 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
—	—	(b) 12 4.7	23 9.0	11 4.3	173 67.4	67 26.1	35 13.6
—	—		13 9.8	4 3.0	75 56.6	56 42.3	28 21.2
—	—	5 4.0	10 8.1	7 5.6	98 79.0	11 8.9	7 5.6
16	8			1	196		9
10	6			—	112		7
6	2			1	84		2
607 0.5	3,211 2.6	3,494 2.8	1,853 1.5	23,781 19.1	5,783 4.6	55,545 44.5	15,629 12.5
214 0.3	794 1.2	1,781 2.8	1,027 1.6	7,877 12.3	3,301 5.2	36,961 57.7	11,464 17.9
393 0.6	2,417 4.0	1,713 2.8	826 1.4	15,904 26.2	2,482 4.1	18,584 30.7	4,165 6.9
62 0.4	54 0.4	812 5.8	2,272 16.3	1,127 8.1	794 5.7	3,310 23.7	868 6.2
—	—	24 1.8	542 39.6	—	236 17.2	463 33.8	54 3.9
—	4 0.3	130 8.2	243 15.3	—	37 2.3	263 16.5	68 4.3
379 0.6	622 1.1	3,028 5.2	16,894 28.8	12,230 20.8	9,831 16.7		2,604 4.4
206 0.7	371 1.3	1,711 5.8	10,000 33.9	5,311 18.0	6,285 21.3		1,851 6.3
173 0.6	251 0.9	1,317 4.5	6,894 23.6	6,919 23.6	3,546 12.1		753 2.6
64 2.4	50 1.9	201 7.6	127 b) 4.8	112 4.2	84 3.2	958 36.2	249 9.4
22 1.6	4 0.3	99 7.3	74 5.5	46 3.4	43 3.2	697 51.7	205 15.2
42 3.2	46 3.5	102 7.8	52 4.0	66 5.1	41 3.2	261 20.1	44 3.4
138 0.2	170 0.3	1,286 2.3	1,874 3.4	69,417 125.2	40,695 73.4	28,516 51.4	6,853 12.4
78 0.3	106 0.4	734 2.6	1,129 4.1	32,030 115.4	24,324 87.6	22,080 79.6	5,471 19.7
60 0.2	64 0.2	552 2.0	745 2.7	37,387 135.0	16,371 59.1	6,436 23.2	1,382 5.0

5-1 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	1989	T	8	3.1	4	1.6	3	1.2	13	5.1	3	1.2
		M	8	6.0	3	2.3	2	1.5	11	8.3	3	2.3
		F	—	—	1	0.8	1	0.8	2	1.6	—	—
INDONESIA	1989	T	10	—	40	—	19	—	1	—	—	—
		M	6	—	33	—	10	—	1	—	—	—
		F	4	—	7	—	9	—	—	—	—	—
JAPAN	1989	T	562	0.5	4,137	3.3	1,092	0.9	3,019	2.4	6,610	5.3
		M	359	0.6	2,702	4.2	671	1.0	1,995	3.1	4,657	7.3
		F	203	0.3	1,435	2.4	421	0.7	1,024	1.7	1,953	3.2
MALAYSIA Peninsular Malaysia Sabah Sarawak	1988	T	67	0.5	693	5.0	114	0.8	23	0.2	187	1.3
		T	—	—	93	6.8	—	—	—	—	223	16.3
		T	50	3.1	76	4.8	—	—	—	—	52	3.3
PHILIPPINES	1988	T	208	0.4	550	0.9	63	0.1	2,637	4.5	—	—
		M	128	0.4	403	1.4	43	0.1	1,824	6.2	—	—
		F	80	0.3	147	0.5	20	0.1	813	2.8	—	—
SINGAPORE	1988	T	8	0.3	62	2.3	2	0.1	23	0.9	65	2.5
		M	8	0.6	51	3.8	1	0.1	22	1.6	54	4.0
		F	—	—	11	0.8	1	0.1	1	0.1	11	0.8
THAILAND	1989	T	297	0.5	251	0.5	163	0.3	2,622	4.7	9,281	16.7
		M	163	0.6	199	0.7	102	0.4	1,845	6.6	7,306	26.3
		F	134	0.5	52	0.2	61	0.2	777	2.8	1,975	7.1

(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	—	—
—	—	—	—	1	0.8	—	—
—	—	—	—	—	—	—	—
		7		10		1	
		5		10		1	
		2		—		—	
86	0.1	21,125	16.9	767	0.1	1	0.0
47	0.1	12,939	20.2	455	0.7	1	0.0
39	0.1	8,186	13.5	312	0.5	—	—
4	0.0	43	0.3	28	0.2	1,283	9.2
		3	0.2	3	0.2	87	6.4
2	0.1	5	0.3	6	0.4	4	0.3
635	1.1	306	0.5	141	0.2	21,775	37.1
549	1.9	195	0.7	118	0.4	19,012	64.5
86	0.3	111	0.4	23	0.1	2,763	9.5
1	0.0	367	13.9	50	1.9	131	4.9
—	—	221	16.4	32	2.4	103	7.6
1	0.1	146	11.2	18	1.4	28	2.2
15	0.0	3,731	6.7	5,198	9.4	105	0.2
10	0.0	2,425	8.7	4,488	16.2	71	0.3
5	0.0	1,306	4.7	710	2.6	34	0.1

6-1 Morbidity Statistics (1)

			001	002	004, 006	003, 005	010-018	030
	Year	Sex	Cholera	Typhoid and Paratyphoid Fever	Amoebiasis and Bacillary Dysentery	Food Poisoning (Bacterial)	Tuberculosis of All Forms	Leprosy
BRUNEI ⁽¹⁾	1989	T	—	19	4	16	128	2
INDONESIA ⁽²⁾	1989	T	(a) 3,001	71,359	2,043		150,428	13,849
JAPAN ⁽³⁾⁽⁴⁾⁽⁵⁾	1989	T	95	170	924	36,479	53,112	26
MALAYSIA ⁽⁶⁾		T	393	1,785	633	1,782	10,686	329
Peninsular Malaysia	1989	T	66	1,194	306	1,504	6,122	196
Sabah		T	327	206	114	80	2,794	79
Sarawak		T	—	385	213	198	1,770	54
PHILIPPINES ⁽⁷⁾	1987	T	—	(b) 15,290			163,740	1,766
		M	—	9,159			86,782	1,058
		F	—	6,131			76,958	708
SINGAPORE ⁽⁸⁾	1989	T	39	128	63	1,639	1,617	48
THAILAND ⁽⁹⁾	1989	T	—	17,043	95,357	56,015	19,245	750

Source : (1) Health Statistics Unit, Public Health Department
(2) Integrated Surveillance System 1989 (ISS)
(3) *Statistics of Communicable Diseases*, Japan 1989
(4) *Statistics of Food Poisoning*, Japan 1989
(5) *Annual Report of Surveillance of Tuberculosis and Infectious Diseases*
Ministry of Health & Welfare
(6) Health Division, Ministry of Health
(7) *Philippine Health Statistics*, 1986, Health Intelligence Service, Department of Health

(8) Ministry of Environment and Ministry of Health
(9) *Weekly Epidemiological Surveillance Record*, Division of Epidemiology, Ministry of Public Health

Note: a) ISS up to August '89
b) Include Other Salmonella Inf. (003)

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
—	1,700	4	NA	(c) 19	NA	—	26	—	(d) 39
1,875		19,718	646	119,531	523,063	4,221		6,922	13,849
4	224,960	2,993	—	57	11,509	229	5,075	42	27,900
35	NA	3,030	—	65,283	NA	25	NA	59	1,027
29	NA	2,145	—	16,902	NA	25	NA	26	828
6	NA	647	—	47,545	NA	—	NA	31	146
—	NA	238	—	836	NA	—	NA	2	53
1,443	6,336	16,084	319	121,097	495,161	7,814		3,199	70,801
823	3,897	10,310	215	65,392	230,307				
620	2,439	5,774	104	55,705	264,854				
1	17,087	439	—	203		—	—	—	146
85	26,169	14,769	195	118,473	77,944	1,219	96	974	12,691

(c) Imported Cases

(d) Suspected cases

6-1 Morbidity Statistics (2)

			056	072	279.8	045	047-049, 062-064	060, 061, 065	125	120	090-097	098	099
			Rubella	Mumps	AIDS (HIV)	Acute Poliomyelitis	Viral Meningitis & Encephalitis	Viral Haemorrhagic Fever	Filariasis	Schistosomiasis	Syphilis	Gonococcal Infections	Other Venereal Diseases
BRUNEI ⁽¹⁾	1989	T	27	230	1	0	0	NA	29	NA	13	26	—
INDONESIA ⁽²⁾	1989	T				316			148	—	1,092		
JAPAN ^{(3) (4)}	1989	T	78,449	232,117	(e) 9	—	42	—	2	3	2,108	5,439	63
MALAYSIA ⁽⁵⁾		T	NA	NA	6	—	2,197	NA	NA	NA	1,969	5,459	117
Peninsular Malaysia	1989	T	NA	NA	6	—	2,145	NA	NA	NA	1,078	1,929	(k) 108
Sabah		T	NA	NA	—	—	6	NA	NA	NA	32	1,707	7
Sarawak		T	NA	NA	—	—	46	NA	NA	NA	859	1,823	(k) 2
PHILIPPINES ⁽⁶⁾	1987	T				344		2,821	290	12,273	99	8,342	
SINGAPORE ⁽⁷⁾	1989	T	—	6	—	—	(g) 4	(i) 944	—	—	957	4,626	2,433
THAILAND ⁽⁸⁾	1989	T	1,321	13,173	AIDS 27 (f) ARC 84 HIV 10,641	19	(h) 1501	66,441	5	(j) 3	13,837	60,195	(l) 40,421

Note : (e) Exclude the infections by the blood clotting factor drug

(f) AIDS-Related Complex

(g) Viral encephalitis only

(h) Encephalitis unspecified & Japanese encephalitis

(i) Dengue fever/dengue hemorrhagic fever

(j) Live fluke

(k) Chancroid

(l) Exclude syphilis & gonococcal infection

7-1 Seasonal Distribution of Cholera Cases

	Year	Total	Month											
			Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
BRUNEI ⁽¹⁾	1988	—												
INDONESIA ⁽²⁾	1989	11,159	1,364	1,363	942	684	605	1,202	1,596	1,907	187	187	626	496
JAPAN ⁽³⁾	1989	95	2	1	1	—	2	2	3	11	62	3	7	1
MALAYSIA ⁽⁴⁾ Peninsular Malaysia Sabah Sarawak	1989	393 66 327 —												
PHILIPPINES ⁽⁵⁾	1987	—												
SINGAPORE ⁽⁶⁾	1989	39	18	—	1	1	1	1	1	2	5	—	—	9
THAILAND ⁽⁷⁾	1989	—												

Source: (1) Ministry of Health

(2) Directorate General of CDC, Ministry of Health, Indonesia, 1989

(3) *Statistics of Communicable Diseases, Japan, 1989*

(4) Health Division, Ministry of Health

(5) *Philippine Health Statistics, 1987*, Health Intelligence Service, Department of Health

(6) Ministry of the Environment

(7) *Preliminary Annual Summary 1989*,
Division of Epidemiology, Ministry of
Public Health

7-2 Seasonal Distribution of Typhoid Fever Cases

	Year	Total	Month											
			Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
BRUNEI ⁽¹⁾	1987	6	0	—	—	—	—	2	—	—	3	—	—	1
INDONESIA ^(2)a)	1986	24,807	2,299	1,661	1,757	2,206	2,128	2,271	2,631	2,296	2,097	2,221	2,004	1,196
JAPAN ⁽³⁾	1989	105	8	9	6	15	13	11	5	4	6	7	14	7
MALAYSIA ^(4)b) Peninsular Malaysia Sabah Sarawak	1989	1,785 1,194 206 385												
PHILIPPINES ^(5)c)	1989	15,290	1,093	1,052	1,165	1,050	1,366	1,207	935	1,365	1,206	1,780	1,504	1,567
SINGAPORE ⁽⁶⁾	1989	116	23	8	10	5	3	9	12	10	7	8	14	7
THAILAND ⁽⁷⁾	1989	8,431	529	504	558	543	579	813	985	1,153	948	785	619	415

Source: (1) Ministry of Health

(2) Directorate General of CDC, Ministry of Health, Indonesia, 1987

(3) *Statistics of Communicable Diseases, Japan*, 1989

(4) Health Division, Ministry of Health

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

(6) Ministry of the Environment

(7) *Preliminary Annual Summary, 1989*, Division of Epidemiology, Ministry of Public Health

Note: a) Including paratyphoid fever from sentinel areas

b) Including paratyphoid fever

c) Including paratyphoid fever and other salmonella infection

7-3 Seasonal Distribution of Paratyphoid Fever Cases

	Year	Total	Month											
			Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
BRUNEI														
INDONESIA														
JAPAN ⁽¹⁾	1989	65	1	10	25	6	5	3	4	2	1	1	5	2
MALAYSIA Peninsular Malaysia Sabah Sarawak														
PHILIPPINES														
SINGAPORE ⁽²⁾	1989	12	3	3	—	—	1	—	1	1	1	1	1	—
THAILAND ⁽³⁾	1989	47	3	2	9	7	4	6	3	2	5	3	1	2

Source: (1) *Statistics of Communicable Diseases, Japan, 1989*

(2) Ministry of the Environment

(3) Preliminary Annual Summary, 1989, Division of Epidemiology,
Ministry of Public Health

7-4 Seasonal Distribution of Bacillary Dysentery Cases

	Year	Total	Month											
			Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
BRUNEI ⁽¹⁾	1987	10	0	0	1	0	4	3	0	0	0	1	1	0
INDONESIA ^{a)}	1988	38		21			6			11				
JAPAN ⁽²⁾	1989	924	70	42	105	107	88	68	53	93	120	57	35	86
MALAYSIA ^(3) b) Peninsular Malaysia Sabah Sarawak	1989	633 306 114 213												
PHILIPPINES														
SINGAPORE ⁽⁵⁾	1989	68	—	—	—	12	—	—	4	18	4	1	21	8
THAILAND ⁽⁴⁾	1989	11,361	968	1,119	1,344	1,288	1,350	1,635	1,097	609	489	475	515	392

Source: (1) Ministry of Health

(2) *Statistics of Communicable Diseases, Japan, 1989*(3) *Communicable Disease Control*, Health Management and Information Unit,
Health Division, Ministry of Health(4) *Preliminary Annual Summary, 1989*, Division of Epidemiology,
Ministry of Public Health

(5) Ministry of the Environment

Note: a) Three months Only

b) Dysentery, all forms

7-5 Seasonal Distribution of Food Poisoning Cases

	Year	Total	Month											
			Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
BRUNEI ⁽¹⁾	1987	19	5	3	1	0	3	0	2	0	0	2	1	2
INDONESIA ⁽²⁾	1988	1,493	101	312	6	19	2	9	85	67	227	102	497	16
JAPAN ⁽³⁾	1989	36,479	964	872	1,879	1,274	3,345	3,406	5,241	4,554	11,161	1,998	889	896
MALAYSIA ⁽⁴⁾ Peninsular Malaysia Sabah Sarawak	1989	1,782 1,504 80 198												
PHILIPPINES														
SINGAPORE ⁽⁵⁾	1989	1,639	92	52	32	37	100	43	54	628	306	161	46	88
THAILAND ⁽⁶⁾	1989	56,015	5,492	4,942	5,646	5,692	6,017	6,014	4,848	4,021	3,636	3,596	3,146	2,965

Source: (1) Ministry of Health

(2) Directorate General of CDC, Ministry of Health, Indonesia, 1987

(3) *Statistics of Food Poisoning, Japan, 1989*

(4) Health Division, Ministry of Health

(5) Ministry of the Environment

(6) Preliminary Annual Summary, 1989, Division of Epidemiology, Ministry of Public Health

8-1 Notifiable Infectious Diseases

ICD Number		(1)		(2)		(3)		Thailand 1989
		Brunei 1989	Indonesia 1988	Japan 1989	Malaysia 1989	Philippines 1987	Singapore 1989	
001	Cholera	V	V	V	V	V	V	V
002	Typhoid and Paratyphoid Fevers	V	V	V	V	V	V	V
003	Other Salmonella Infections	V			V	V		V
004	Shigella			V	V			V
008	Intestinal Infections due to Other Organisms	V		V a)				V
010-018	Tuberculosis	V		V	V	V	V	V
020	Plague	V	V	V	V		V	V
022	Anthrax			V				V
030	Leprosy	V		V	V	V	V	V
032	Diphtheria	V	V	V	V	V	V	V
033	Whooping Cough	V		V	V	V		V
034	Streptococcal Sore Throat and Scarlet Fever -			V b)				V
036	Meningococcal Infection		V	V				V
037	Tetanus	V	V	V	V	V		V
045	Acute Poliomyelitis	V	V	V	V	V	V	V
052	Chickenpox	V		V		V	V	V
055	Measles	V		V	V	V	V	V
060	Yellow Fever		V	V	V		V	
061	Dengue		V c)		V	V	V	V
062	Mosquito-borne Viral Encephalitis	V		V	V		V	V
070	Viral Hepatitis	V		V	V	V	V	V
071	Rabies		V	V	V			V
072	Mumps	V						V
076	Trachoma							
081	Other Typhus	V			V			(Scrub Typhus) V
084	Malaria	V		V	V	V	V	V
087	Relapsing Fever		V	V				

Source: (1) Directorate General of CDC, Ministry of Health

(2) *Communicable Disease Control Information System Manual*, Ministry of Health

(3) *Philippine Health Statistics, 1987*

ICD Number		(1)		(2)				
		Brunei 1988	Indonesia 1988	Japan 1988	Malaysia 1989	Philippines 1987	Singapore 1989	Thailand 1989
090	Congenital Syphilis		V	V	V	V	V	V
098	Gonococcal Infections	V	V	V	V	V	V	V
099	Other Venereal Diseases	V	V d)	V d)	V e)		V f)	V f)
100	Leptospirosis	V						V
102	Yaws							
120	Schistosomiasis[Bilharziasis]		V	V		V		V
125	Filarial Infection and Dracontiasis	V	V	V g)	V	V g)		V
487	Influenza		V	V		V		V

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

9-1 Infectious Diseases Specified by Immunization Programme

	Brunei 1989	Indonesia 1988	Japan 1989	Malaysia 1989	Philippines 1985	Singapore 1989	Thailand 1989
Cholera	✓				✓		✓
Diphtheria	✓	✓	✓	✓	✓	✓	✓
Epidemic Typhus							
Measles	✓	✓	✓	✓	✓	✓	✓ a)
Mosquito-borne Viral Encephalitis			✓				✓
Mumps						✓	
Plague							
Poliomyelitis	✓	✓	✓	✓	✓	✓	✓
Rubella	✓		✓ b)	✓		✓	✓
Tetanus	✓	✓	✓	✓	✓	✓	✓
Tuberculosis(BCG)	✓		✓	✓	✓	✓	✓
Typhoid and Paratyphoid Fever	✓				✓		✓
Whooping Cough	✓	✓	✓	✓	✓	✓	✓
Yellow Fever	✓			✓ c)			

Note: a) In restricted areas

b) Women Only

c) Required under Institute for Medical Research

10 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

10-1 Crude Live-birth Rates

(per 1,000 population)

Year	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI ⁽¹⁾			31.2	28.8	29.3	30.1	30.6	30.3	28.5	27.8
INDONESIA	43.8	a) 40.2	35.4	33.7	b) 33.2	b) 32.7	b) 32.2	b) 31.7	b) 31.3	30.8
JAPAN ⁽²⁾	18.8	17.1	13.6	12.7	12.5	11.9	11.4	11.1	10.8	10.2
MALAYSIA ⁽³⁾				30.9	31.3	31.9	31	29.5	30.0	27.1
Peninsular Malaysia	33.9	31.3	30.3	30.3	30.7	31.3	30.2	28.6	28.8	26.2
Sabah	37.9	35.4	38.7	40.7	42.7	42.3	42.7	40.9	42.1	36.8
Sarawak	30.4	29.7	29.4	28.6	27.5	28.6	27.7	28.1	30.0	26.4
PHILIPPINES ⁽⁴⁾	(5) 27.4	(5) 28.3	33.6	32.9	32.6	32.2	(5) 26.7	27.6		
SINGAPORE	22.1	17.7	17.1	16.2	16.4	16.6	14.8	16.7	20.0	(6) 17.8
THAILAND ⁽⁷⁾	31.5	27.4	22.8	21.3	19	18.8	18	16.5	16.0	16.3

Source: *Demographic Yearbook 1975, 1979, 1982*, UN
Population and Vital Statistics Report, 1980 1981, 1982, 1983, UN

- (1) Birth & Death Registry and Economic Planning Unit
 (2) *Vital Statistics Japan, 1989*, Ministry of Health & Welfare
 (3) *Yearbook of Statistics, Malaysia 1989*, Department of Statistics
 (4) National Statistics Office
 (5) *Philippine Health Statistics 1970, 1975, 1986*, Health Intelligence Service, Department of Health

(6) *Monthly Digest of Statistics, Aug. 1990*, Department of Statistics

(7) Health Statistics Division, Ministry of Public Health

Note: a) Estimates for 1970-75 prepared by the Population Division, UN

b) Calculated by Central Bureau of Statistics in 1985, based on National Census 1980

10-2 Crude Death Rates

(per 1,000 population)

Year	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI ⁽¹⁾			4.0	3.5	3.6	3.6	3.2	3.3	3.2	3.3
INDONESIA ⁽²⁾	18.7	16.7	12.5	11.7	11.3	11.2	10.9	10.6	10.3	10.0
JAPAN ⁽³⁾	6.9	6.3	6.2	6.2	6.2	6.3	6.2	6.2	6.5	6.4
MALAYSIA ⁽⁴⁾			5.3	5.1	5.1	5.0	4.8	4.7	4.7	4.7
Peninsular Malaysia	7.3	6.4	5.5	5.3	5.3	5.3	5	4.9	4.9	4.9
Sabah	5.9	4.3	4.2	4.5	4.3	4.1	4.1	4.0	3.9	3.8
Sarawak	5.2	5	4.2	3.9	3.9	3.7	3.5	3.1	3.3	3.8
PHILIPPINES ⁽⁵⁾	(6) 6.7	(6) 6.4	8.7	8.3	8.1	7.9	5.8	5.8		
SINGAPORE	5.2	5.1	5.2	5.3	5.2	5.2	5.0	5.0	5.2	(7) 5.2
THAILAND ⁽⁸⁾	6.2	5.8	5.3	5.1	4.5	4.4	4.1	4.3	4.2	4.5

Source : *Demographic Yearbook 1975, 1979, 1982, UN**Population and Vital Statistics Report, 1980 1981, 1982, 1983, UN*

(1) Birth & Death Registry and Economic Planning Unit

(2) Calculated by Central Bureau of Statistics in 1987, Based on National Census 1980.

(3) *Vital Statistics Japan, 1989*, Ministry of Health & Welfare(4) *Yearbook of Statistics, Malaysia 1988*, Department of Statistics

(5) National Statistics Office

(6) *Philippine Health Statistics 1970, 1975, 1986*, Health Intelligence Service, Department of Health(7) *Monthly Digest of Statistics, Aug 1990*, Department of Statistics, Singapore

(8) Health Statistics Division, Ministry of Public Health

10-3 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
(1) BRUNEI	1989	7.2	0.8	28.0	104.7	3.3	9.2
(2) INDONESIA	1989	7.7	0.8	30.8	NA	20.0	63.9
(3) JAPAN	1989	5.8	1.3	10.2	42.4	6.4	4.6
(4) MALAYSIA	1989	a) 2.9	NA	27.1	c) 106.1	4.7	13.9
Peninsular Malaysia		a) 3.0		26.2	101.5	4.9	13.2
Sabah		a) 1.7		36.8	165.1	3.8	17.6
Sarawak		a) 2.8		26.4	101.6	3.8	10.6
		b) 2.7					
		b) 2.2					
		b) 2.3					
(5) PHILIPPINES	1987	d) NA	NA	27.6	110.9	5.8	32.1
(6) SINGAPORE	1989	8.8	1.1	17.8	60.4	5.2	6.6
(7) THAILAND	1989	(8) 7.1	(8) 0.6	16.3	61.3	4.5	8.5

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, 1989*, Ministry of Health & Welfare
 (4) *Yearbook of Statistics, Malaysia 1989*, Department of Statistics
 (5) *Philippine Health Statistics 1987*, Department of Health
 (6) *Yearbook of Statistics, Singapore, 1989*, Department of Statistics
 (7) Health Statistics Division, Ministry of Public Health
 (8) Ministry of Interior, 1984

Note: a) Muslim Marriages are Excluded in the above Table
 b) For 1980 : *Social Statistical Bulletin, Malaysia 1981*
 c) Rate computed based on population & birth rate
 d) *National Statistics Office 1987*

10-4 Natality, Mortality and Natural Increase

	Year	Natality (live-born)				General Mortality				Natural Increase (‰)
		Number			(‰)	Number			(‰)	
		Total	Male	Female		Total	Male	Female		
BRUNEI ⁽¹⁾	1989	6,923	3,560	3,363	27.8	827	498	329	3.3	24.5
INDONESIA ⁽²⁾	1989				30.8				10.0	20.8
JAPAN ⁽³⁾	1989	1,246,796	640,534	606,262	10.2	788,604	427,144	361,460	6.4	3.7
MALAYSIA ⁽⁴⁾	1989	469,663	242,551	227,112	27.1	81,234	46,296	34,958	4.7	25.2
Peninsular Malaysia		374,290	193,065	181,225	26.2	69,707	39,321	30,386	4.9	23.1
Sabah		52,220	26,983	25,237	36.8	5,389	3,266	2,123	3.8	33.0
Sarawak		43,153	22,503	20,650	26.4	6,138	3,689	2,449	3.9	22.7
PHILIPPINES ⁽⁵⁾	1987	1,582,469	825,528	756,941	27.6	335,254	197,275	137,979	5.8	21.8
SINGAPORE ⁽⁶⁾	1989	47,735	24,737	22,993	17.8	14,069	7,942	6,116	5.2	12.5
THAILAND ⁽⁷⁾	1989	902,764	463,875	438,889	16.3	246,570	143,156	103,414	4.4	11.9

Source : (1) Birth & Death Registry and Economic Planning Unit
(2) Calculated by Central Bureau of Statistics in 1985, based on National Census 1980
(3) *Vital Statistics Japan, 1989*, Ministry of Health & Welfare
(4) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak 1989*.
(5) *Philippine Health Statistics 1986*, Health Intelligence Service, Department of Health
(6) *Monthly Digest of Statistics, Aug. 1990*, Department of Statistics
(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

Fig.3 Recent Trends in Crude Live-Birth Rate (per 1,000)



11-1 Late Fetal, Infant, Neonatal, Post-neonatal and Perinatal Mortality

	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⁾	1989	48	7.0	4.8	7.0	26	3.8	21	3.0	70	10.2
INDONESIA ⁽²⁾	1989				a) 63.8						
JAPAN ⁽³⁾	1989	5,070	4.1	5,724	4.6	3,214	2.6	2,386	1.9	7,456	6.0
MALAYSIA ⁽⁴⁾											
Peninsular Malaysia	1989	3,444	9.1	4,949	13.2	3,154	8.4	1,794	4.8	5,852	15.5
Sabah		202	3.9	919	17.6	624	11.9	403	7.7	718	13.7
Sarawak		165	3.8	451	10.5	293	6.8	158	3.7	399	9.2
PHILIPPINES ⁽⁵⁾	1987	4,313	2.7	50,803	32.1	21,381	13.5	29,422	18.6	20,449	12.9
SINGAPORE ⁽⁶⁾	1989	208	4.4	315	6.6	219	4.6	96	2.0	377	7.9
THAILAND ^(7) b)	1989			7,669	8.5	3,235	3.6	4,434	4.9	c) —	—

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

(2) Ministry of Health, Indonesia 1989

(3) *Vital Statistics Japan, 1988*, Ministry of Health & Welfare

(4) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak 1989*, Department of Statistics

(5) *Philippine Health Statistics 1987*, Health Intelligence Service, Department of Health

(6) *Singapore Demographic Bulletin, Jun 1990*, Registry of Birth and Death, National Registration Department

(7) Health Statistics Division, Ministry of Public Health

Note : a) Central Bureau of Statistics, Demographic Parameter Approximate and Family Planning User in Indonesia, 1985-1995

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.

c) As mentioned in Note b) above, the data on stillbirths are incomplete. The figures on late fetal deaths included here are those collected from hospital only.

11-2 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⁾	1988	T	48	22		4	22	—	7.0	3.2		0.6	3.2	—
INDONESIA ⁽²⁾	1989	T							63.8					
JAPAN ⁽³⁾	1989	T	5,724	1,255	1,131	828	2,510	—	4.6	1.0	0.9	0.7	2.0	
		M	3,118	692	611	434	1,381	—	4.9	1.1	1.0	0.7	2.2	
		F	2,606	563	520	394	1,129	—	4.3	0.9	0.9	0.6	1.9	
MALAYSIA ⁽⁴⁾	1989	T	4,948						13.2					
		M	2,838						14.7					
		F	2,110						11.6					
		T	919						17.6					
		M	528						19.6					
		F	391						15.5					
		T	451						10.5					
		M	264						11.7					
		F	187						9.1					
PHILIPPINES ⁽⁵⁾	1987	T	50,803	16,136		5,245	29,442	0	32.1	10.2		3.3	18.6	0
SINGAPORE ⁽⁶⁾	1988	T	368	131	55	59	123	—	6.9	2.5	1.0	1.1	2.3	—
		M	194	66	33	33	42	—	7.1	2.4	1.2	1.2	2.3	—
		F	173	64	22	26	61	—	6.8	2.5	0.9	1.0	2.4	—
THAILAND ⁽⁷⁾	1989	T	7,669	1,135	999	1,101	4,237	197	8.5	1.3	1.1	1.2	4.9	—
		M	4,461	657	629	650	2,412	113	9.6	1.4	1.4	1.4	5.4	—
		F	3,208	478	370	451	1,825	84	7.3	1.1	0.8	1.0	4.3	—

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, 1989*, Ministry of Health & Welfare

(4) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak 1989*, Department of Statistics, Malaysia

(5) Health Intelligence Service, Department of Health

(6) *Report on Registration of Births and Deaths, Singapore 1988*

(7) Health Statistics Division, Ministry of Public Health

11-3 Maternal Mortality Rates

(per 100,000 live-births)

	1970	1975	1980	1983	1984	1985	1986	1987	1988	1889
BRUNEI ⁽¹⁾			70	70	50	—	—	10	—	
INDONESIA							450	450	450	450
JAPAN ⁽²⁾	50.0	28.7	20.5	15.4	15.3	15.8	13.5	12.0	9.6	10.7
MALAYSIA ^(3) a)										
Peninsular Malaysia	148	83	63	40	39	37	30	28	0.26	0.20
Sabah	11	72	107	17	20	19	10	14	0.19	0.25
Sarawak	90	20	50	20	30	10	12	1	0.15	0.12
PHILIPPINES ⁽⁴⁾	(5) 190	(5) 140	110	140	100	90	90	(5) 105.3	110	
SINGAPORE ⁽⁶⁾	32.7	30.0	4.9	14.8	12.0	4.7	13.0	6.9	11.3	b) 8.4
THAILAND ⁽⁷⁾	226.1	171.7	98.5	63.5	48	42	34.7	37.2	27.2	22.8

Source : *Demographic Yearbook 1982*, UN

Note : a) Medically certified or inspected deaths only

b) Preliminary

(1) Birth & Death Registry and Economic Planning Unit

(2) *Vital Statistics Japan, 1970-89*, Ministry of Health & Welfare(3) *Vital Statistics Peninsular Malaysia, Sabah and Sarawak (Respective years)*

(4) Projections by Department of Health

(5) *Philippine Health Statistics 1986*, Intelligence Service, Department of Health(6) *Report on the Registration of Births and Deaths*

(7) Health Statistics Division, Ministry of Public Health

12-1 Expectation of Life at Specified Ages for Each Sex

	Year	Sex	Age								
			0	1	2	3	4	5	10	15	20
⁽¹⁾ BRUNEI	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 54.5
⁽²⁾ INDONESIA	1986	M F	58.8 62.5	64.5 65.5				60.3 63.2	55.9 58.7	51.3 54.1	46.9 49.6
⁽³⁾ JAPAN	1989	M F	75.9 81.8	75.3 81.1	74.3 80.2	73.4 79.2	72.4 78.2	71.4 77.2	66.5 72.3	61.6 67.3	56.7 62.4
MALAYSIA ⁽⁴⁾ Peninsular Malaysia	1989	M F	68.9 73.5	68.9 73.3				65.2 69.6	60.4 64.7	55.5 59.8	50.8 54.6
⁽⁵⁾ PHILIPPINES	1987	M F	61.6 65.2	64.6 67.6	64.2 67.2	63.5 66.4	62.7 65.6	61.9 64.8	57.4 60.2	52.7 55.5	48.2 51.0
⁽⁶⁾ SINGAPORE	1988	M F	71.6 76.2	71.1 75.7				67.3 71.9	62.3 66.9	57.4 62.0	52.6 57.1
⁽⁷⁾ THAILAND	1985 -1990	M F	61.8 67.5	64.7 69.3				62.0 66.2	57.4 61.6	52.8 56.8	48.3 52.1

Source : (1) *Brunei Statistical Yearbook 1986*

(2) Calculated by Centre for Health Data, using model life table for developing countries, UN, 1982

(3) *Abridged Life Table for Japan 1989*, Ministry of Health & Welfare, Japan(4) *Abridged Life Table 1989*, Department of Statistics, Malaysia

(5) National Statistics Office, calculated by Interpolation using west model life table

(6) *Abridged Life Table 1988*, 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		
42.6 45.3	38.4 40.9	34.1 36.7	29.9 32.5	25.8 28.3	21.9 24.2	18.3 20.3	14.9 16.6	11.8 13.2	9.2 10.1	6.8 7.5	4.9 5.3			
52.0 57.5	47.2 52.6	42.3 47.7	37.6 42.9	32.9 38.1	28.4 33.4	24.1 28.8	20.0 24.3	16.2 20.0	12.7 15.8	9.5 12.0	6.9 8.7	4.9 6.0	3.4 4.0	2.4 2.6
46.2 50.1	41.5 45.3	36.9 40.6	32.3 35.8	27.8 31.2	23.5 26.7	19.6 22.4	16.0 18.3	12.8 14.6	9.8 11.3	7.6 8.6	5.4 6.2			
43.8 46.5	39.4 42.1	35.1 37.7	30.8 33.3	26.6 29.0	22.5 24.8	18.8 20.8	15.3 17.0	12.2 13.5	9.4 10.4	7.0 7.7	5.0 5.5			
47.9 52.3	43.1 47.4	38.3 42.6	33.6 37.8	29.1 33.1	24.6 28.5	20.6 24.1	16.9 19.9	13.6 16.1	10.7 12.6	8.2 9.6	6.0 6.9	4.2 4.5		
43.9 47.6	39.5 43.0	35.1 38.5	30.8 34.1	26.6 29.6	22.6 25.3	18.8 21.3	15.3 17.4	12.2 13.8	9.4 10.7	7.0 7.9	5.0 5.7			

12-2 Survivors at Specified Ages for Each Sex

	Year	Sex	Age							
			0	1	5	10	15	20	25	30
(1) BRUNEI	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
(2) INDONESIA	1986	M	100,000	92,570	90,001	89,112	88,447	87,391	85,917	84,379
		F	100,000	93,996	91,571	90,762	90,136	89,211	87,988	86,585
(3) JAPAN	1989	M	100,000	99,518	99,318	99,206	99,121	98,799	98,412	98,040
		F	100,000	99,575	99,419	99,345	99,286	99,168	99,016	98,836
(4) MALAYSIA Peninsular Malaysia	1986	M	100,000	98,282	97,790	97,472	97,175	96,599	95,783	94,881
		F	100,000	98,637	98,182	97,923	97,707	97,420	97,065	96,630
(5) PHILIPPINES	1986	M	100,000	93,882	92,002	91,285	90,741	89,842	88,588	87,293
		F	100,000	95,083	93,325	92,698	92,212	91,471	90,475	89,316
(6) SINGAPORE	1988	M	100,000	99,247	99,077	98,944	98,793	98,470	97,974	97,476
		F	100,000	99,365	99,192	99,068	98,961	98,780	98,549	98,268
(7) THAILAND	1985 - 1986	M	100,000	94,797	93,971	93,358	93,336	92,336	91,454	89,926
		F	100,000	95,234	95,242	94,639	94,129	93,421	92,672	91,892

Source : (1) *Brunei Statistical Yearbook 1986*

(2) Calculated by Centre for Health Data, using model life table for developing countries

(3) *Abridged Life Table 1989*, Ministry of Health & Welfare

(4) *Abridged Life Table 1986*, Department of Statistics, Malaysia

(5) Calculated by Interpolation using west model life table, National Statistics Office

(6) *Abridged Life Table 1988*, Ministry of Health

(7) The survey of population change 1985-1986

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		
82,663 84,988	80,602 83,137	77,956 80,939	74,440 78,183	69,636 74,460	63,159 69,465	54,542 62,405	43,755 52,768	31,158 40,095	18,314 25,602			
97,632 98,605	97,064 98,249	96,121 97,708	94,626 96,901	92,168 93,666	88,167 93,827	82,584 91,132	74,634 86,793	62,972 79,605	46,755 67,461	27,776 48,564	11,704 26,252	2,901 8,544
93,954 96,067	92,793 95,286	91,025 94,103	88,416 92,436	84,069 89,670	77,564 85,390	68,039 78,235	56,105 68,306	40,472 53,705	26,442 38,015			
85,846 87,981	84,084 86,339	81,758 84,457	78,537 81,925	73,998 78,436	67,661 73,646	59,044 66,771	47,978 57,104	34,726 44,057	20,861 28,685			
96,898 97,914	96,083 97,373	94,820 96,597	92,838 95,338	89,105 93,097	82,940 89,672	74,091 83,940	62,582 75,553	47,700 63,197	32,051 47,882	16,544 29,929		
88,353 91,042	86,634 90,001	84,503 85,466	81,433 86,597	77,294 83,438	71,174 77,737	61,635 70,765	50,760 61,589	36,496 49,615	23,648 39,094			

Fig.4 Survivors at specified Ages for Each Sex(1)
BURUNEI, 1981

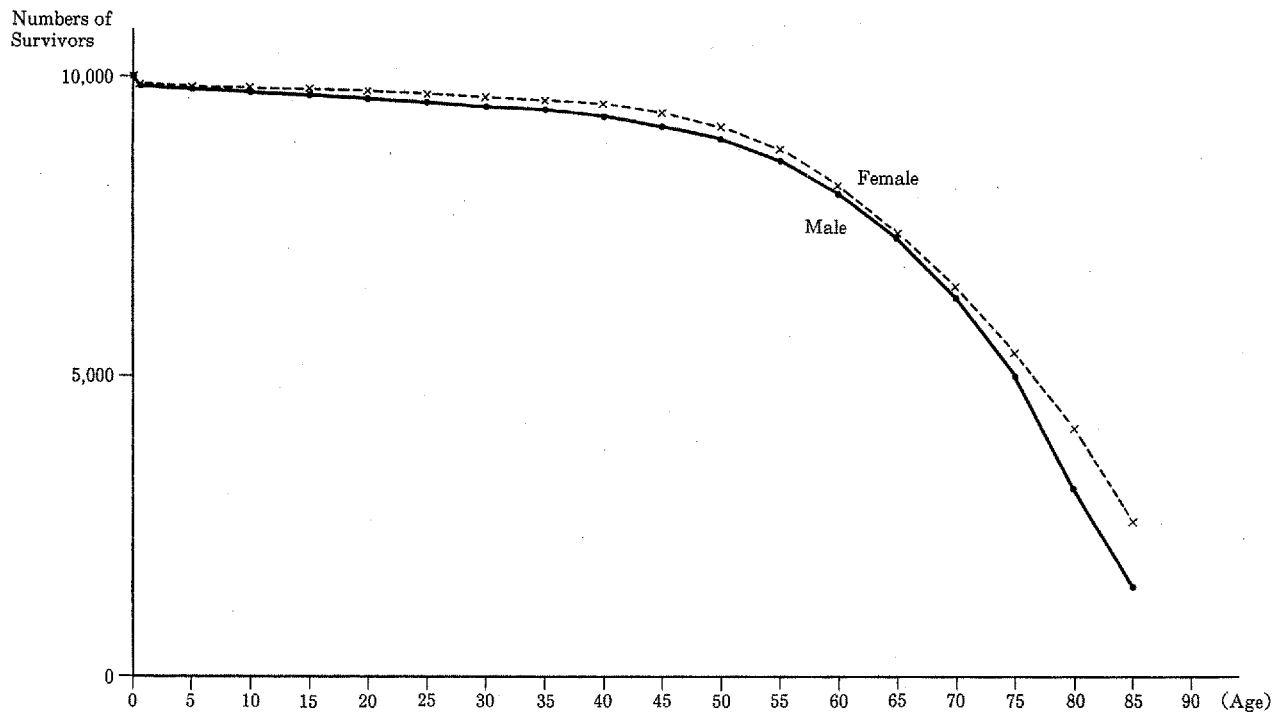


Fig.4 Survivors at specified Ages for Each Sex(2)
INDONESIA, 1986

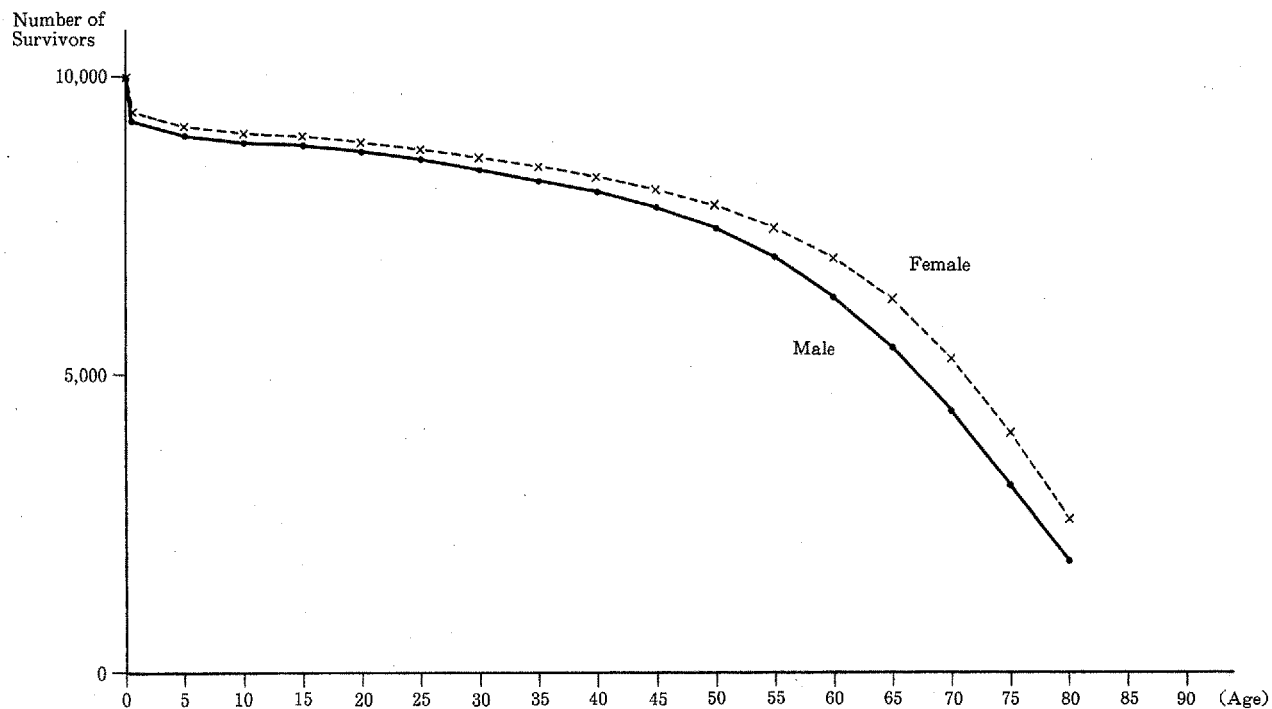


Fig.4 Survivors at specified Ages for Each Sex (3)
JAPAN, 1989

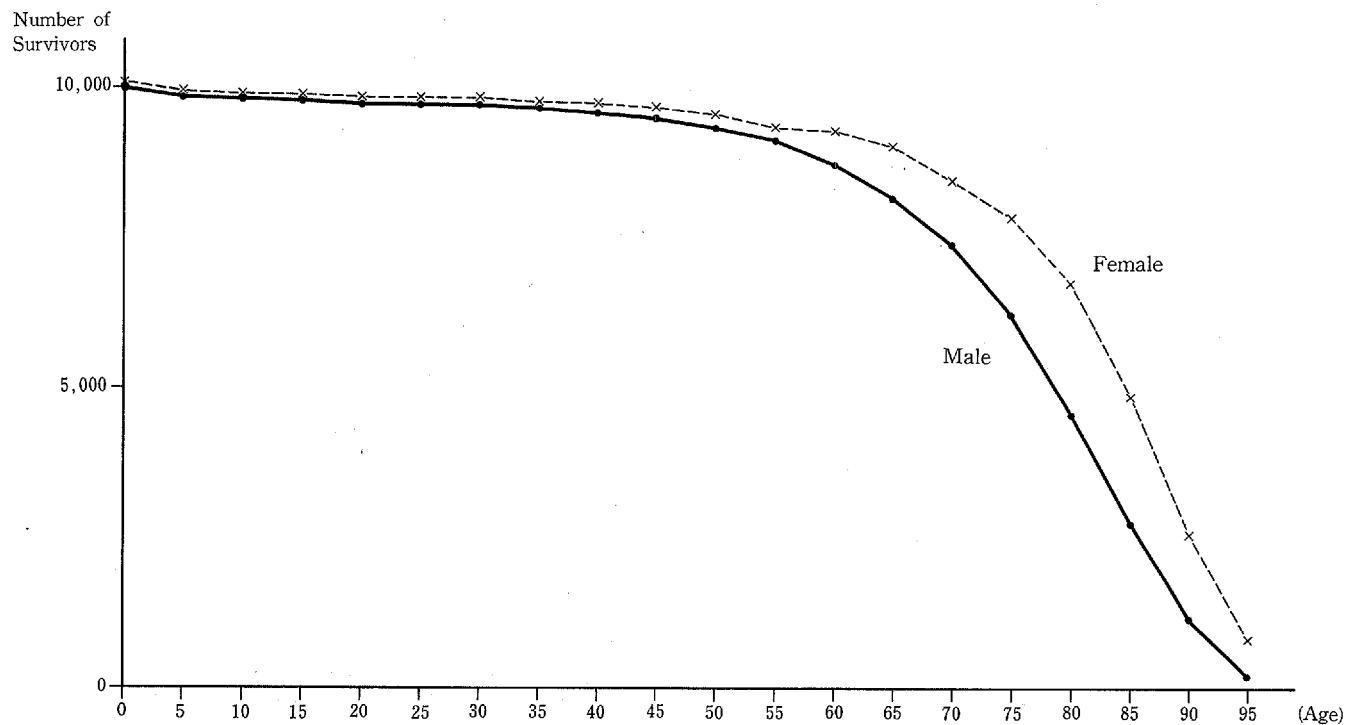


Fig.4 Survivors at specified Ages for Each Sex(4)
PENINSULAR MALAYSIA, 1986

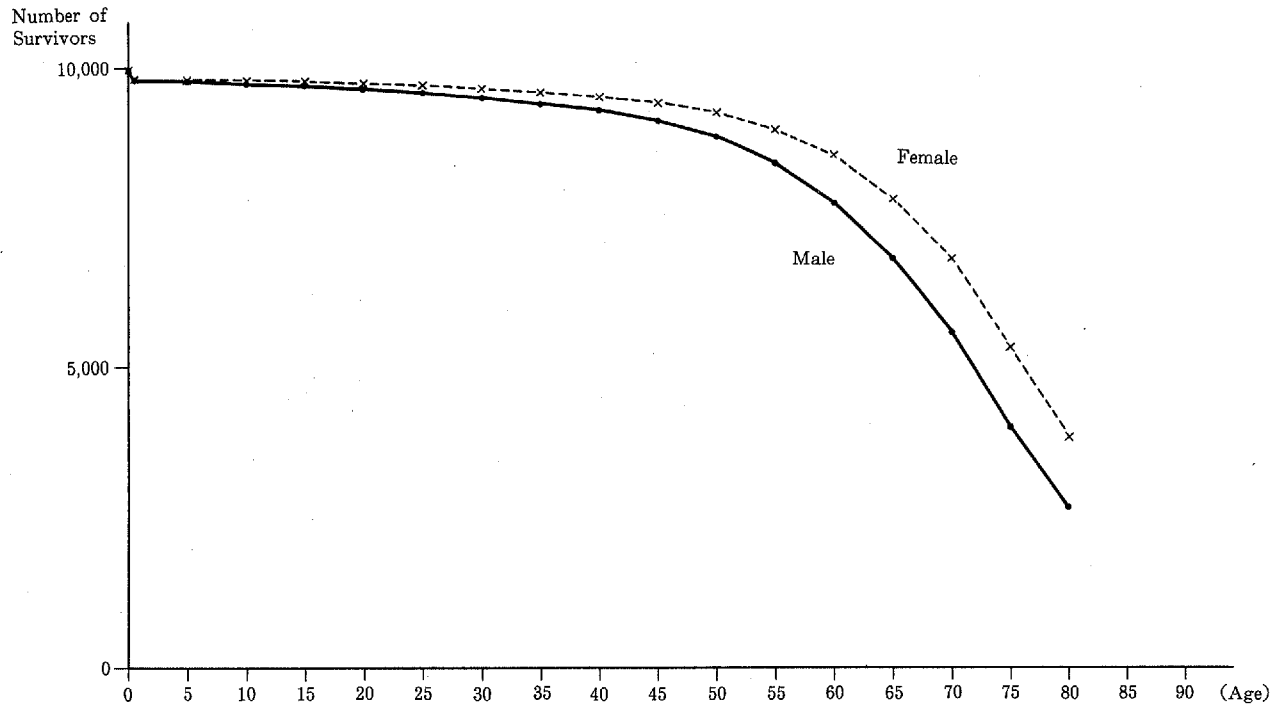


Fig.4 Survivors at specified Ages for Each Sex(5)
PHILIPPINES, 1986

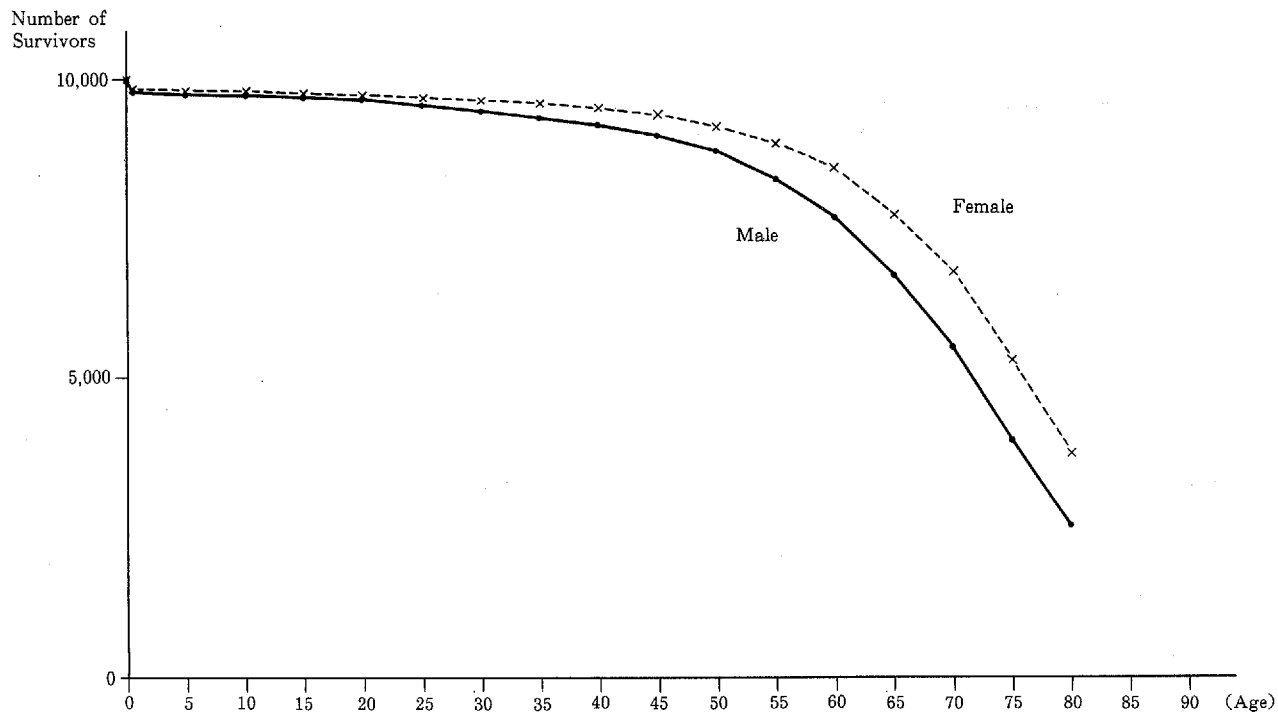


Fig.4 Survivors at specified Ages for Each Sex(6)
SINGAPORE, 1988

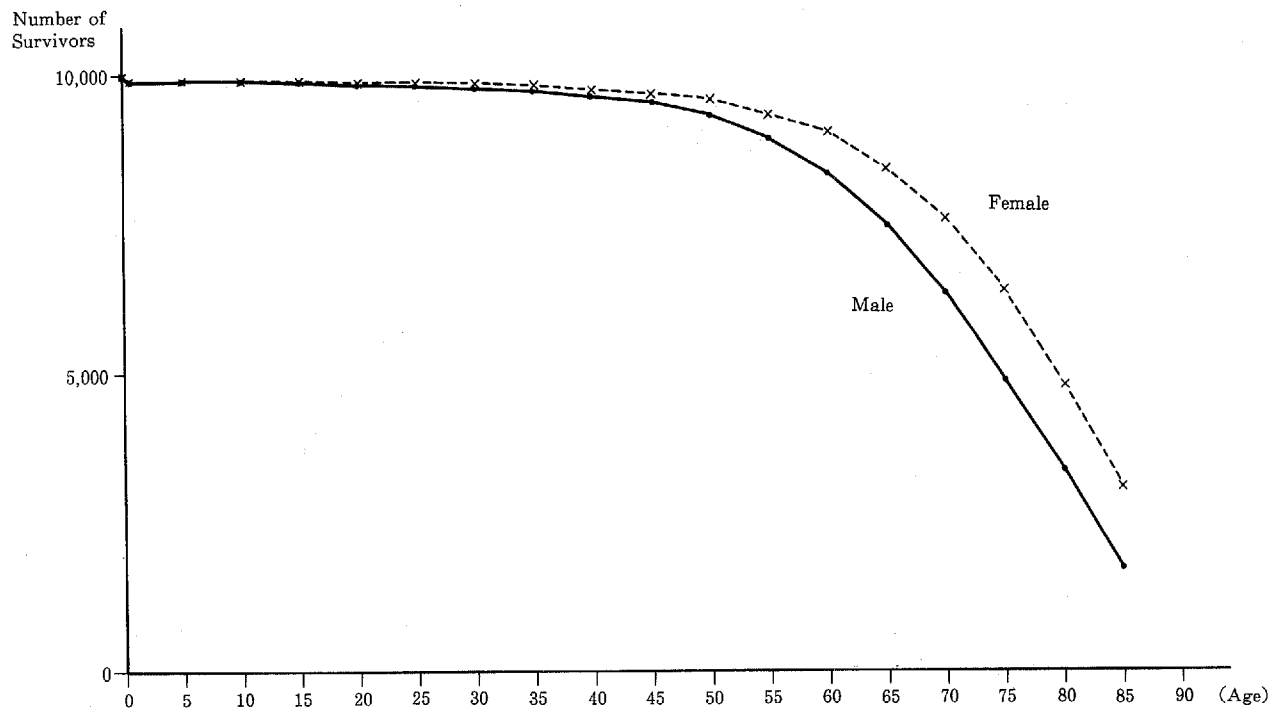


Fig.4 Survivors at specified Ages for Each Sex(7)
THAILAND, 1985-1986

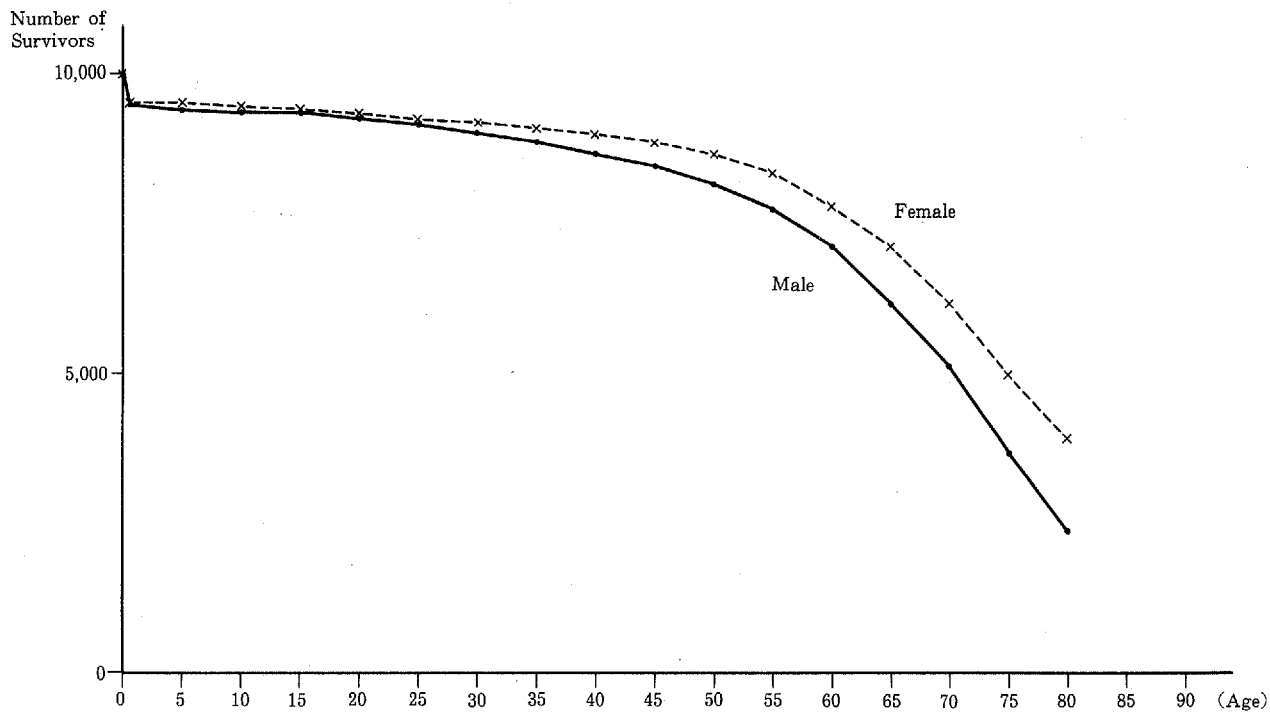
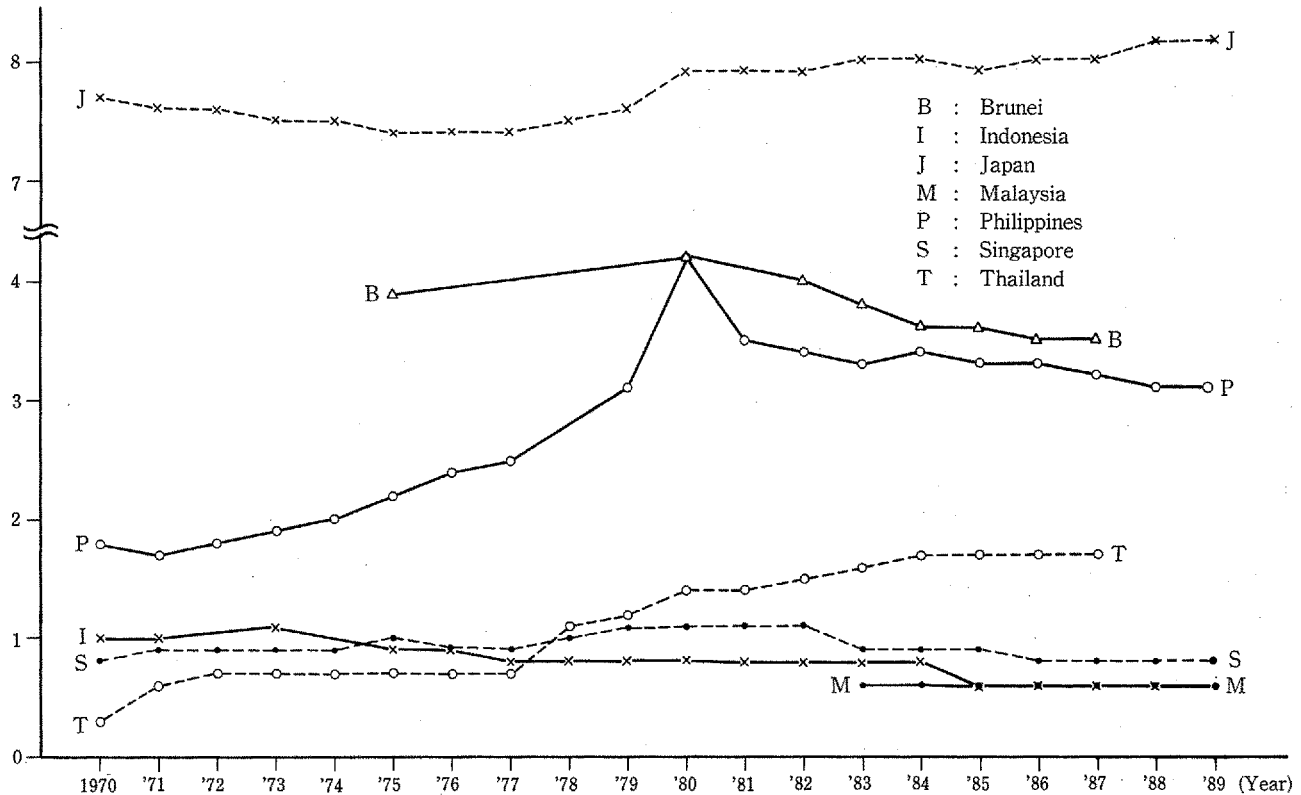


Fig.5 Recent Trends in Number of Hospitals (per 100,000 population)



13-1 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										
⁽¹⁾ INDONESIA	1986	2,660	2,597	63	58.2	51.8	6.4			
⁽²⁾ JAPAN	1989	2,061			80.2	37.8	42.4	58.9	30.6	28.3
MALAYSIA	1977	a) 2,549	a) 2,195	a) 354	57.6	35.7	21.9	45.5	29.2	16.3
⁽³⁾ PHILIPPINES	1987	1,753	1,541	212	49.7	31.1	18.6	30	19	11
⁽⁴⁾ SINGAPORE	1983	2,922	2,266	657	71.8	39.0	32.8	70.1	21.6	48.5
⁽⁵⁾ THAILAND	1986	1,766	1,412	354	50.8	27.9	22.9	42.6	13.4	29.2

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

Note: a) For 1982

(1) *Welfare Indonesia 1987*, Central Bureau of Statistics

(2) *Japan Statistical Yearbook 1989*, Statistical Bureau, Management & Coordination Agency

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

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

(5) Nutrition Division, Ministry of Public Health

13-1 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	1986	215	10.0	a) 1,096	1.18		142	
JAPAN	1989	540	11.4	a) 2,687	1.26	1.36	123	290
MALAYSIA	1977	330	13.5	135	0.87	0.79	44	
PHILIPPINES	1987	420	10.7	b) 310.1	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 = Recent Equivalent, mg.

14-1 Socio-Economic Indicators

	Year	Literacy Rates (%)	Per Capita GNP ^{a)} (in US \$)	Labour Force Participation Rate (%)	
BRUNEI	1986	b) 87	c) 12,423	d) 60.3	
INDONESIA	1987	(1) e) 80.91	(1) 409	57.4	
JAPAN	1988	f) 99.99	23,290	(2) 62.6	
MALAYSIA	1989	g) Male : 80 g) Female : 64	2,029	66.3	
PHILIPPINES	1989	NA	c) 665	Jan. 63.8 Apr. 65.2	Jul. 67.2 Oct. 65.7
SINGAPORE	1989	h) 87.6	S\$ 17,910	i) 63.1	
(3) THAILAND	1984	j) 87.7	c) 893	c) 74.4	

Source : (1) *Statistical Year Book of Indonesia, 1988*, Central Bureau of Statistics

(2) *Japan Statistical Yearbook 1989*

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

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

b) Age 9 years and over

c) For 1988

d) Age 15 years and over

e) For 1985

f) Children not enrolled

g) For 1980

h) Per 100 population aged 10 years and over

i) Per 100 population aged 15 years and over

j) 7 years old

15-1 Family Planning Methods Used

(%)

	Year	Reversible				Irreversible	a) Natural	b) Others
		Oral Contraceptive	IUD	Injection	Condom	Sterilization (Tubal ligation, Vasectomy)		
BRUNEI								
INDONESIA								
JAPAN ⁽¹⁾	1988	7.0		—	76.8	7.4	16.3	6.0
MALAYSIA	1989	75.6	4.3	1.0	12.2	5.3	1.1	0.5
PHILIPPINES	1988	14.6	5.5	—	3.0	25.0	1.3	50.6
SINGAPORE	1987	11.1	6.7	0.4	31.6	c) 32.7	16.2	1.3
^(2) d) THAILAND	1988	17.2	5.7	9.4	—	30.7	—	—

Source : (1) Institute of Population Problems

(2) Department of Health, Ministry of Public Health

Note: a) Basic body temperature, cervical mucus, rhythm
Method

b) Diaphragm, etc.

c) % of all those practising contraception

d) Married women of reproductive age (15~44 years)

16-1 Housing Conditions

(%)

	Year		Percentage of Households in Occupied Dwelling Units with Piped Water	Percentage of Households in Occupied Dwelling Units by Type of Toilet Facilities				Lighting			
				Flush/Water	Pit or Moulded Bucket	Other	None	Electricity	Pressure/Gas Lamp	Oil Lamp	Other
BRUNEI	1981	Total	90.1	54.6	2.8	38.6	4.1	85.7	2.7	10.9	0.7
(1) INDONESIA	1985	Total	(2) 10.8	(2) 14.9	(2) 19.7	65.3	—	30.5	—	68.8	0.8
		Urban	32.4	38.4	17	44.6	—	72.8	—	26.9	0.2
		Rural	3.3	6.8	20.7	72.5	—	15.9	—	83.1	0.9
(3) JAPAN	1983	Total	94	58.5	41.5						
		Urban	95.9	67	33						
(4) MALAYSIA	1980	Total	65	56.4	22.7	4.4	16.5	64.4	8.4	26.5	0.7
		Peninsular Malaysia	68	60.7	21.7	3.6	14.7	68.4	7.3	23.6	0.7
		Sabah	50.3	32.1	32.9	8.1	26.9	45	15.7	28.7	0.6
		Sarawak	47.8	56.4	22.7	4.4	16.5	41.6	13.2	44.5	0.7
(5) PHILIPPINES	1987	Total	71.4	67.9	16.0	3.7	16.1	57.0			
		Urban	85.1	79.4	10.3	1.4	10.3	85.4			
		Rural	60.6	58.8	70.6	2.2	20.7	39.7			
(6) SINGAPORE	1989	Total	99.0	96.8	3.2			95.0	5.0		
(7) THAILAND	1980	Total	18.9	4.2	50.3	44.1	1.3	43	0.7	54.8	0.2

Source : (1) *Welfare Indicators 1986*, Central Bureau of Statistics

(2) 1985 Inter - Censal Population Survey

(3) *1983 Housing Survey of Japan, Vol. 1, Part 1*, Statistics Bureau, March 1985(4) *Census of Housing, Malaysia 1980 Summary Report*, Department of Statistics Malaysia, July 1982

(5) Family Income & Expenditure Survey, 1985, National Statistics Office

(6) Public Utilities Board and Ministry of the Environment

(7) *1980 Population & Housing Census*, Whole Kingdom, National Statistical Office

17-1 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	1980	M F	49.7 49.3	56.0 55.2	62.7 61.1	68.1 66.8	72.0 70.6	75.5 74.1
MALAYSIA									
(3) PHILIPPINES	National	1986	M F	49.9 48.7	53.7 52.2	59.7 58.1	65.9 64.2	69.4 68.0	71.7 70.6
(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		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

17-2 Mean Weight of Infants from Birth to One Year

(kgw)

	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	1980	M F	3.2 3.2	5.1 4.8	6.8 6.2	8.2 7.7	9.0 8.5	9.7 9.1
(3) MALAYSIA	Peninsular Malaysia	1989	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			6.0	7.2	8.1	8.8
			F			5.5	6.3	7.4	8.0
	Chinese	1972	M			6.5	8.1	8.9	9.2
			F			6.5	8.0	8.8	8.9
(6) THAILAND	Bangkok		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

17-3 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									
INDONESIA ⁽¹⁾	Bogor	1976	T	—	36.3	40.4	43.1	44.5	45.4
JAPAN ⁽²⁾	National	1980	M F	32.5 32.4	39.1 38.2	42.4 41.2	44.6 43.6	46.1 44.9	47.0 45.7
MALAYSIA									
PHILIPPINES ⁽³⁾	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									
THAILAND ⁽⁴⁾	Bangkok		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

17-4 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						108.9	111.7
			F						108.0	110.7
(2) JAPAN	National	1989	M	(3) 79.9	(3) 89.2	(3) 96.9	(3) 103.5	110.8	116.7	122.5
			F	(3) 78.5	(3) 88.6	(3) 96.2	(3) 102.8	110.0	116.0	121.8
(4) MALAYSIA	National	1960	M							109.7
			F						105.4	109.7
(5) PHILIPPINES	National	1987	M	75.7	84.6	91.0	97.9	102.9	108.4	114.2
			F	75.0	83.0	90.9	96.9	102.6	108.1	113.9
(6) SINGAPORE	National	1983	M						116.2	121.1
			F						115.4	120.5
(7) THAILAND	a) Bangkok	1984	M	(4) 73.5	(4) 83.8	(4) 93.5	(4) 100.5	(4) 105.0	113.5	116.9
	b) Ubonratchatani		F	72.2	84.0	93.0	99.0	103.5	115.7	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, p30-32

(2) Ministry of Education, Science and Culture

(3) *National Nutrition Survey*, 1987, 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) Ministry of Health

(7) Ohsawa's Laboratory, Otsuma Women's University

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										
127.9	133.3	138.3	144.3	151.3	158.6	164.4	167.8	169.6	170.5	(3) 170.8
127.3	133.1	139.5	146.4	151.4	154.8	156.4	157.1	157.6	157.8	(3) 157.0
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	163.0 151.5
126.2 125.7	131.1 131.3	135.4 137.3	140.6 143.9	148.2 148.7	156.1 152.4	162.2 154.6	165.5 155.6	166.8 155.4	167.8 155.7	165.8 157.7
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	153.8

17-5 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
JAPAN (2)	National	1989	M F	(3) 10.9 (3) 10.1	(3) 12.7 (3) 12.2	(3) 14.7 (3) 14.4	(3) 16.1 (3) 15.7	19.3	21.5	24.0
(4) MALAYSIA	National	1980	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	1983	M F						20.6 19.9	22.6 22.4
(1) THAILAND	a) Bangkok b) Ubonratchatani	1984	M F	(4) 9.1	(4) 11.0	(4) 13.4	(4) 15.1	(4) 16.8	18.8	20.4
				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, 1987*, 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) Ministry of Health

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	21.3	23.3	25.7	27.3	31.8	37.1	40.9	44.7	46.9	48.7
19.2	21.6	23.4	26.3	30.3	33.4	37.6	40.4	43.2	44.6	45.9
										(3)
27.0	30.3	33.7	37.9	43.4	48.7	54.1	58.7	60.6	62.0	62.6
26.4	29.8	33.9	38.7	43.8	47.4	50.0	51.9	52.5	52.6	(3)
										51.2
19.5	20.7	24.2	27	29.5						
18.7	21.8	24.0	28.5	30.0	32.5	35.5				
20.6	22.6	24.3	26.9	30.6	35.2	39.8	43.1	47.3	49.5	51.9
20.8	22.9	25.7	29.3	33.3	36.8	40.4	43.3	45.3	46.0	46.3
25.3	28.3	31.3	34.4	39.5	44.7	49.4	52.7	54.3	55.9	54.6
24.5	27.4	31.3	36.1	40.0	43.6	45.5	47.0	47.7	47.5	50.2
23.4	24.8	25.9	30.3	31.1	37.9	44.9	46.7	51.0	51.8	53.0
21.6	24.0	29.4	31.6	38.4	38.4	40.7	45.0	47.8	47.4	49.1

18 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.

18-1 Comparative Table on Medical Establishments

	Brunei (1988)	Indonesia (1989)	Japan (1988)	Malaysia (1989)			Philippines (1987)	Singapore (1989)	Thailand (1988)
				Peninsular Malaysia	Sabah	Sarawak			
1 General Hospital	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 General & Rural Hospital							✓		✓
3 Local or Rural Hospital				(1) ✓	(1) ✓	(1) ✓			✓
4 Medical Center							✓		
5 Medical Maternity Center									✓
6 Maternity Hospital		✓					✓	✓	✓
7 Infectious Diseases Hospital		✓	✓				✓		✓
8 Chronic Diseases Hospital								✓	
9 Leprosy Hospital		✓	✓	✓		✓	✓		✓
10 Tuberculosis Hospital		✓	✓	✓			✓		✓
11 Pediatrics Hospital							✓		
12 Dermato- Venerology Hospital								✓ a)	✓
13 Ophthalmology Hospital		✓							✓
14 Orthopedics Hospital		✓					✓		
15 Mental Hospital		✓	✓	✓	✓	✓	✓	✓	✓
16 Cancer Hospital		✓							✓
17 Estab. for Drug Addicts		✓					✓		✓
18 Tropical Diseases Hospital							✓		✓
19 Other Specialized Hospital		✓					✓		✓

Source : (1) District & Divisional Hospitals

Note: a) National Skin Center is a Dermatology Hospital only and provides only ambulatory care. STD cases requiring inpatient treatment are admitted into an Annex of one of the acute hospitals.

18-2 Hospitals and Other Medical Establishments with Beds (1)

	Year	1 General Hospitals				2 General and Rural Hospitals				3 Local or Rural 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	1988	8	971	a) 23,396	a) 91,118								
INDONESIA ⁽¹⁾	1989	753	91,338	2,818,406	17,602,402								
JAPAN	1989	8,991	1,239,883	9,702,647	409,332,134	..				..			
MALAYSIA ⁽²⁾ Peninsular Malaysia Sabah Sarawak	1989	16	13,680	645,588	3,618,975					b) 79	12,563	704,559	2,398,780
		12	11,785	545,067	3,068,920					53	9,468	440,015	1,175,300
		3	1,159	65,674	301,490					12	1,338	173,093	247,105
		1	736	34,847	248,565					14	1,751	91,451	976,375
PHILIPPINES ⁽³⁾	1987	537	40,829	1,548,198 1,635,793	7,651,859	75	7,850			..			
SINGAPORE	1989	14	6,027	293,886	1,547,689	..				..			
THAILAND ⁽⁴⁾	1988	340	63,603							562	11,356		

Source: Ministry of Health in each country

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

Note: a) Based on 4 government hospitals

b) District hospitals

c) Excluding one medical center

d) Special hospitals under Department of Health

4 Medical Centre				5 Medical & Maternity Centers				6 Maternity 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
								48	2,308	55,828	218,807
..				..				..			
..				..				..			
8	2,770	c) 108,245	d) 631,703					d) 1	700	36,856	176,396
..				..				1	440	29,647	103,719
—	—			..				9	1,263		

18-2 Hospitals and Other Medical Establishments with Beds (2)

	Year	7 Infectious Diseases Hospitals				8 Chronic Diseases Hospitals				9 Leprosy 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													
INDONESIA	1989	1	103	3,718	14,934	..				25	3,064	2,545	923,851
JAPAN	1989	11	12,621	231	7,643	..				16	9,655	104	2,498,126
MALAYSIA Peninsular Malaysia Sabah Sarawak	1989	..				..				2	1,102	1,504	164,469
										1	836	1,446	137,605
										1	266	58	26,864
PHILIPPINES	1987	a) 1	900	31,638	172,254	..				b) 8	5,000	..	..
SINGAPORE	1989	..				1	454	383	113,475	..			
THAILAND (7)	1988	1	400			..				3	1,750		

Note: a) Special hospitals under Department of Health
b) Under Department of Health
c) National Skin Center is a Dermatology Hospital only and provides only ambulatory care. STD cases requiring inpatient treatment are admitted into an Annex of one of the acute hospitals.

10 Tuberculosis Hospitals				11 Pediatrics Hospitals				12 Dermato-Venereology Hositals			
Establish- ments	Beds	Admissions or Discharges	Patient- Days	Establish- ments	Beds	Admissions or Discharges	Patient- Days	Establish- ments	Beds	Admissions or Discharges	Patient- Days
11	757	6,904	171,688	..				..			
16	44,060	1,513	388,775	..				..			
1	276	2,246	39,420								
1	276	2,246	39,420								
—	—	—	—								
—	—	—	—								
1	738	7,556	181,720	b) 1	450	13,516	97,139	..			
..				..				c) 1	35	669	6,326
2	686			—	—			1	43		

18-2 Hospitals and Other Medical Establishments with Beds (3)

	Year	13 Ophthalmology Hospitals				14 Orthopedics Hospitals				15 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
BRUNEI													
INDONESIA	1989	8	607	9,657	72,181	1	180	1,266	47,168	48	7,752	29,376	2,366,454
JAPAN	1989	..				..				1,047	355,743	172,018	94,681,307
MALAYSIA Peninsular Malaysia Sabah Sarawak	1989					..				4	5,720	8,875	1,537,560
										2	5,080	4,001	1,409,265
										1	302	476	16,167
										1	338	898	112,128
PHILIPPINES	1987	..				a) 1	700	7,865/ 8,055	255,500	a) 1	5,200	4,042	1,443,266
SINGAPORE	1989	1	20	176	808	..				3	2,795	6,179	898,316
THAILAND	1988	4	71			..				10	6,907		

Note: a) A special hospital under Department of Health

b) A hospital under Department of Health

16 Cancer Hospitals				17 Establ. for Drug Addicts				18 Tropical 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
1	25	—	—	1	30	398	6,600	..			
..				..				..			
..				21		1,563		b) 1	50	929	8,933
..				..				..			
1	200			2	680			1	220		

18-2 Hospitals and Other Medical Establishments with Beds (4)

	Year	19 Other Specialized Hospitals				20 Total			
		Establish-ments	Beds	Admissions or Discharges	Patient-Days	Establish-ments	Beds	Admissions or Discharges	Patient-Days
BRUNEI	1987					8	971	23,396	91,118
INDONESIA	1989	26	948	39,941	155,468	924	107,112	2,968,039	21,579,613
JAPAN	1989					10,081	1,938,980	9,876,513	506,907,805
MALAYSIA Peninsular Malaysia Sabah Sarawak	1989					102	33,341	1,362,272	7,759,204
						69	27,445	995,775	5,330,510
						16	2,799	239,243	564,762
						17	3,097	127,254	1,363,932
PHILIPPINES	1986	3	603	17,885	135,223	48	57,470	229,716	3,040,520
SINGAPORE	1989	..				20	9,716	330,271	2,664,016
THAILAND	1988	5	830			941	88,009		

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

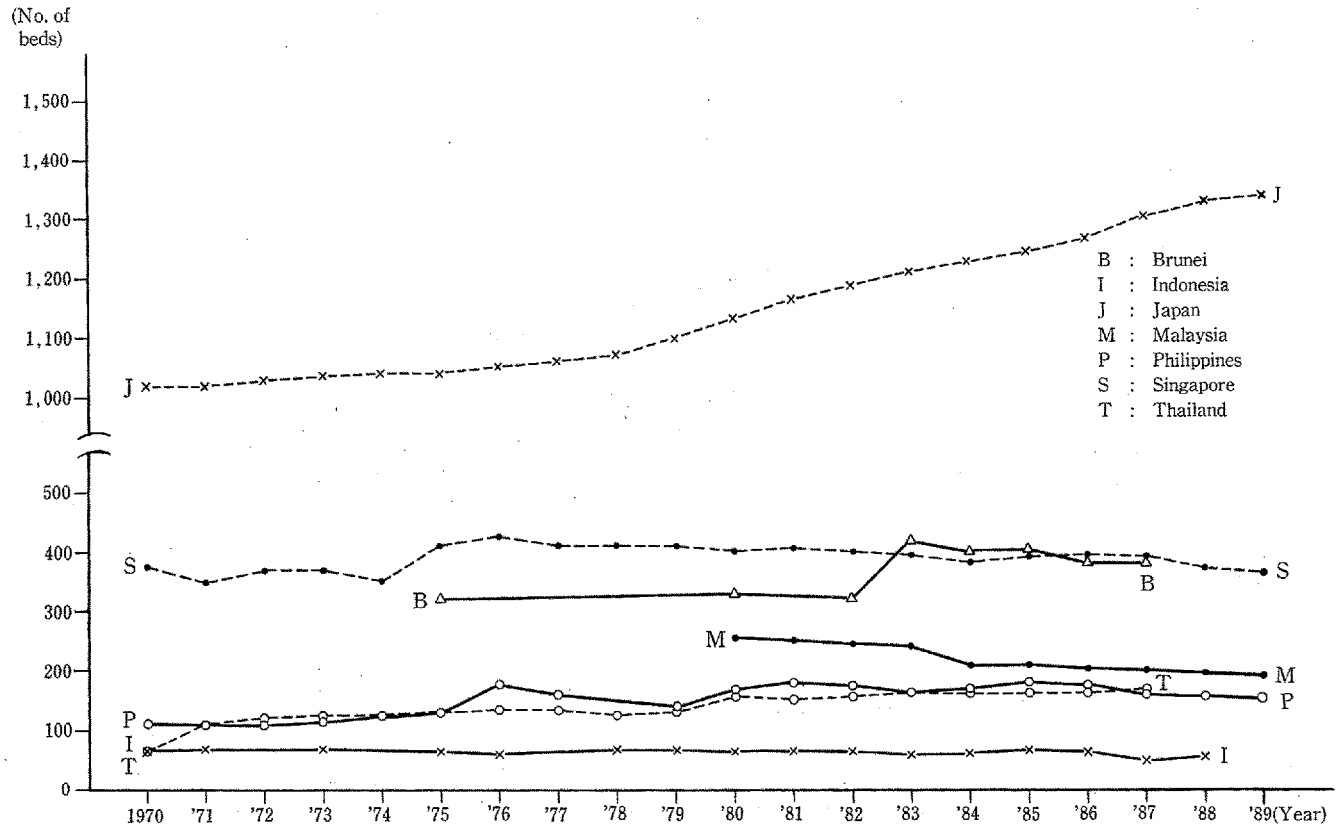


Fig.7 Recent Trends in Number of Physicians (per 100,000)

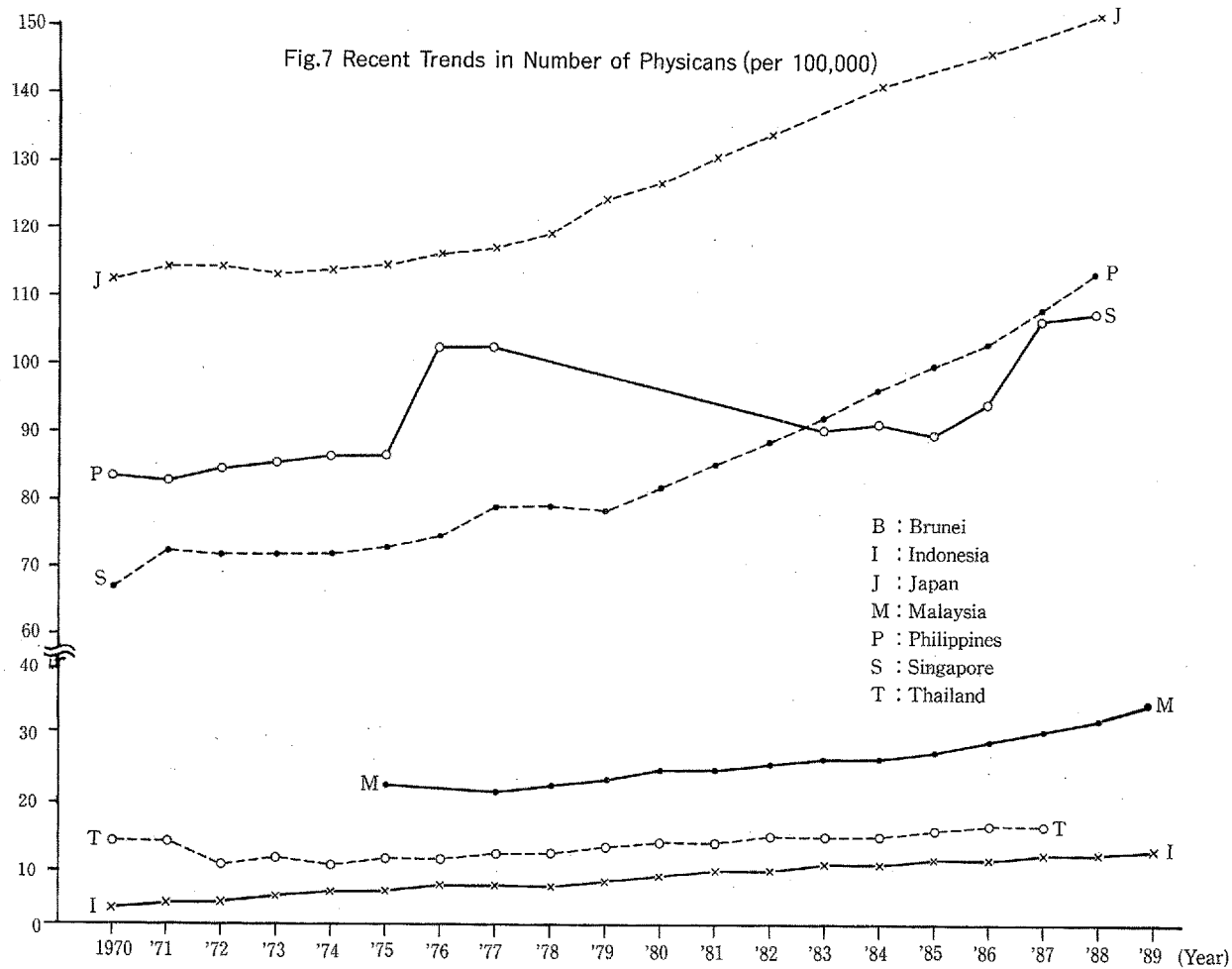
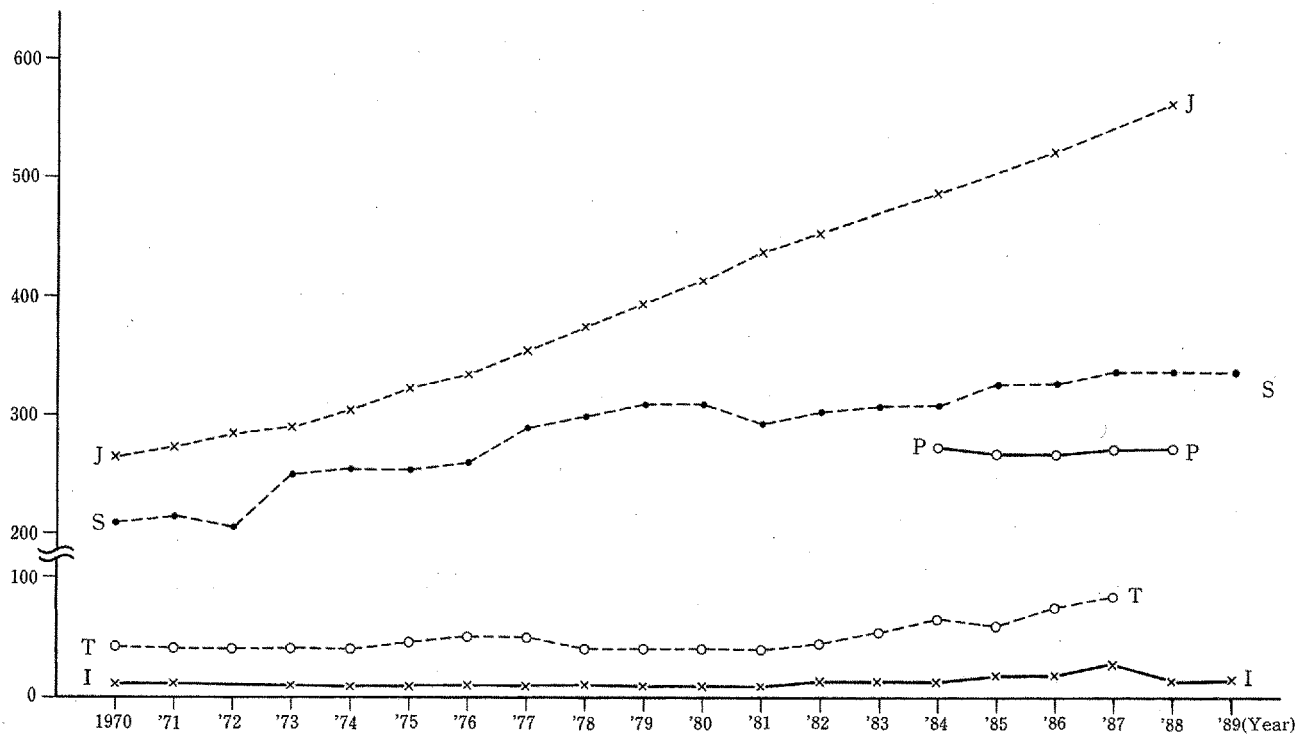


Fig.8 Recent Trends in Number of Nurses (per 100,000)



18-3 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	Beds per 10,000 Population	Admissions		Bed Occupancy Rate(%)	Average Length of Stay(Days)
									per 10,000 Population	per Bed		
BRUNEI	1988		249	40	969	33		40	969	249	33	
⁽¹⁾ INDONESIA	1989		1,670	6.0	165.9	55.2		5.1	157.6	30.9	52.8	6.2
JAPAN	1988	T	75.1	133.1	754.5	84.1	T	95.1	740.9	7.0	81.3	42.7
⁽²⁾ MALAYSIA	1989	A	520	19.2	785.0	64.6	A	7.9	372.0	47.2	72.3	5.6
Peninsular			521	19.2	696.4	63.7		8.2	381.1	46.3	71.1	5.6
Malaysia			507	17.1	1684.2	60.0		8.2	462.3	56.7	71.5	4.6
Sabah Sarawak			527	19.1	779.2	76.7		4.5	213.4	47.4	92.5	7.1
⁽³⁾ PHILIPPINES	1987	T	3,276	3.1	43.1	45.5						
SINGAPORE	1989	T	276	36.2	1,229.9	76.7	T	22.4	1,094.4	48.8	72.2	5.3
⁽⁴⁾ THAILAND	1988	T	620	16.1				11.7				

Source: Ministry of Health in each country

(1) Directorate of Medical Care, Ministry of Health

(2) Information and Documentation System Unit

(3) Hospital Operations & Management Service 1987

(4) Health Statistics Division

Note: Type of hospitals

T = Total

A = Government hospital establishments

District Hospitals						Medical and Maternity Centers					
Type	Beds per 10,000 Population	Admissions		Bed Occupancy Rate(%)	Average Length of Stay(Days)	Type	Beds 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		
A	7.2	406.0	56.1	53.7	190.9						
	6.6	307.0	46.5	50.6	124.1						
	9.4	1,218.5	129.4	50.6	184.7						
	10.8	560.0	52.1	50.7	555.7						
	2.1										

18-3 Hospital Utilization by Category of Hospital (2)

	Year	Tuberculosis						Mental Hospitals			
		Type	Beds per 10,000 Population	Admissions		Bed Occupancy Rate(%)	Average Length of Stay(Days)	Type	Beds per 10,000 Population	Admissions	
				per 10,000 Population	per Bed					per 10,000 Population	per Bed
BRUNEI											
(1) INDONESIA	1989		0.0	0.4	9.1	62.1	24.9		0.4	1.6	3.8
JAPAN	1989	T	4.0	0.1	0.9	70.9	270.4	T	28.4	13.4	0.6
MALAYSIA	1989	A	0.2	1.3	8.1	39.1	17.7	A	3.3	4.8	1.5
Peninsular			0.2	1.6	8.1	39.1	17.7		3.6	4.9	1.4
Malaysia			—	—	—	—	—		2.1	3.4	1.6
Sabah			—	—	—	—	—		2.1	5.5	2.7
Sarawak											
PHILIPPINES	1987	T	0.1	1.4		76	22	Special	0.9	0.7	
SINGAPORE	1989		..					T	10.4	23.0	2.2
THAILAND	1988		0.1						1.3		

Source: Ministry of Health in each country
 (1) Directorate of Medical Care, 1986

		Maternity Hospitals					
Bed Occupancy Rate(%)	Average Length of Stay(Days)	Type	Beds per 10,000 Population	Admissions		Bed Occupancy Rate(%)	Average Length of Stay(Days)
				per 10,000 Population	per Bed		
83.6	80.6	T	0.1	3.1	24.2	26.00	3.9
99.3	565.8						
75.94 76.00	183.6 201.0						
58.20 90.90	141.0 126.0						
76.90	28.9	Special	0.1	6.6		69	2.2
88.7	246.1	T	1.6	110.4	67.4	59.7	3.5
		A	0.2				

18-4 Number of Hospitals

		1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI	Total		6	8	8	8	8	8	8		
INDONESIA		1,164	1,115	1,208	1,273	1,306	1,367	1,408	a) 1,436	1,500	
JAPAN		7,974	8,294	9,055	9,515	9,574	9,608	9,699	9,841	10,034	10,081
MALAYSIA					96	98	101	101	102	102	102
Peninsular		64			64	65	68	68	69	69	69
Malaysia			15		16	16	16	16	16	16	16
Sabah			14		16	17	17	17	17	17	17
Sarawak		14	14		16	17	17	17	17	17	17
	Total	650	927	2,020	1,713	1,706 b)	1,839	1,815 b)	1,846	1,805	1,805
PHILIPPINES	Public	220	316	413	519	527	612	624	617	619	619
	Private	430	611	1,607	1,194	1,179	1,227	1,191	1,229	1,186	1,186
	Total	16	23	26	23	22	22	22	21	21	20
SINGAPORE	Public	11	13	13	11	11	10	10	10	10	10
	Private	10	10	13	12	11	12	12	11	11	10
THAILAND	Total	98	281	636	808	850	856	888	910	941	

Source: Ministry of Health in each country

Note: a) Directorate of Medical Care, MOH, Indonesia, 1987

b) Include : medical centers, regional provincial, district, municipal, special, sanitaries & medicare community hospitals under department of health

18-5 Number of Beds

		1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI			506	630	876	876	876	876	876		
INDONESIA		86,022	83,696	98,543	103,586	104,966	110,361	a) 111,300	112,328	116,847	
JAPAN		1,062,553	1,164,098	1,319,406	1,440,381	1,467,050	1,495,328	1,533,887	1,582,393	1,634,309	1,661,952
MALAYSIA				a) 35,291	35,779	32,669	32,495	a) 32,960	33,161		33,341
Peninsular		27,927		a) 29,792	29,661	26,993	26,491	27,185	27,272		27,445
Malaysia				a) 2,670	2,950	2,534	2,809	2,799	2,799	2,803	2,799
Sabah			2,233	a) 2,670							
Sarawak		2,000	2,358	2,829	3,168	3,142	3,195	2,976	3,090	3,090	3,097
	Total	40,289	55,323	81,976	88,250 (1982)	84,142	90,279	89,668	97,735	90,414	90,414
PHILIPPINES	Public	19,725	27,075	39,625	48,199	45,187	47,861	48,045	57,470	50,703	50,703
	Private	20,564	28,248	42,351	40,051	38,955	42,418	41,623	40,265	39,711	39,711
	Total	7,760	9,311	9,585	9,859	9,687	10,000	10,189	10,105	9,908	9,716
SINGAPORE	Public	6,891	8,211	8,078	8,222	8,085	8,329	8,352	8,269	7,971	7,924
	Private	869	1,100	1,507	1,637	1,602	1,671	1,837	1,836	1,837	1,792
THAILAND	Total	25,619	52,652	71,718	78,438	c) 81,070	c) 84,045	c) 84,438	89,633	88,009	

Source: Ministry of Health in each country

Note: a) Including those in government hospitals
b) Including other government agencies
c) Including private maternity centres

19 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 medications, 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 Mid-wifery 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 Dark-room 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	

19-1 Comparative Table on Medical Personnel

	Brunei (1988)	Indonesia (1987)	Japan (1988)	Malaysia (1989)			Philippines (1988)	Singapore (1989)	Thailand (1988)
				Peninsular Malaysia	Sabah	Sarawak			
1 Physicians	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 Medical assistants				✓	✓	✓			✓
3 Multipurpose health auxiliaries							✓		
4 Dentists/Dental auxiliaries	✓	✓	✓	✓	✓	✓	✓	✓	✓
5 Dental operation auxiliaries	✓		✓				✓	✓	
6 Dental non-operating auxiliaries								✓	
7 Pharmacists/Chemists	✓	✓	✓	✓	✓	✓	✓	✓	✓
8 Pharmaceutical assistants	✓	✓		✓	✓	✓		✓	✓
9 Veterinarians/Veterinary surgeons	✓						✓	✓	✓
10 Animal health assistants								✓	✓
11 Professional midwives	✓		✓	✓	✓	✓	✓	✓	✓
12 Assistant midwives/Auxiliary midwives	✓								
13 Auxiliary nurse-midwives	✓								
14 Professional nurses	✓		✓	✓	✓	✓	✓	✓	✓
15 Assistant nurses/Auxiliary nurses	✓		✓	✓	✓	✓		✓	✓
16 Nursing and miwifery aids		✓					✓		✓
17 Physiotherapists/Physical therapists	✓	✓	✓	✓	✓	✓	✓	✓	✓
18 Medical laboratory technicians	✓	✓	✓	✓	✓	✓	✓	✓	✓
19 Assistant medical laboratory technicians	✓	✓	✓	✓	✓	✓		✓	
20 Medical physicist	✓								
21 Medical radiological technicians	✓	✓	✓				✓	✓	
22 Assistant medical radiological technicians	✓		✓					✓	
23 Sanitary engineers		✓		✓	✓	✓	✓	✓	✓
24 Sanitarians	✓	✓					✓	✓	✓
25 Auxiliary sanitarians	✓							✓	

	Brunei (1988)	Indonesia (1987)	Japan (1988)	Malaysia (1989)			Philippines (1988)	Singapore (1989)	Thailand (1988)
				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	
29 Practitioners of traditional midwifery									
30 Dental nurses		V		V	V	V		V	
31 Nurses including nurse-midwives		V						V	
32 Orthopaedic technicians		V							
33 Malaria field officers							V		
34 Medical social technicians									
35 Health statistics technicians	V			V					
36 Medical statisticians	V			V					
37 Dental hygienists			V				V		V
38 Trained or rural midwives							V		
39 Traditional birth attendants							V		
40 Laboratory aides									V
41 Sanitary inspectors		V					V		
42 Medical social workers	V		V				V	V	
43 Dental practitioners								V	
44 Veterinary assistants								V	
45 Nursemidwives		V							
46 Dental technicians				V	V	V		V	
47 Dispensers		V						V	
48 Assistant nurse-midwives									
49 Nurses		V	V	V	V	V	V	V	
50 Occupational therapists	V		V				V	V	V

	Brunei (1988)	Indonesia (1987)	Japan (1988)	Malaysia (1989)			Philippines (1988)	Singapore (1989)	Thailand (1988)
				Peninsular Malaysia	Sabah	Sarawak			
51 Dietitians	V						V	V	V
52 Radiographers	V	V		V	V	V		V	
53 Nursing auxiliaries									
54 X-ray assistant technicians	V								
55 Health inspectors	V	V		V	V	V		V	
56 Assistant health inspectors		V		V	V	V		V	
57 Biochemists	V								V
58 Health educators	V	V					V	V	V
59 Midwives		V	V	V	V	V	V	V	
60 Microscopists	V								V
61 Health assistants	V								
62 Entomologists							V		V
63 Dental surgery assistants				V	V	V			
64 Nutritionists		V	V				V		
65 Darkroom assistants	V								

19-2 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	1988	171	..	..	19	36	..	8
INDONESIA ⁽¹⁾	1989	24,823	..	..	4,907	..	..	4,963
JAPAN	1988	201,658	..	..	70,572	a) 22,049	..	143,429
MALAYSIA ⁽³⁾	1989	6,577	b) 3,321	..	1,401	..	..	1,170
Peninsular Malaysia		5,981	2,345	..	1,289	..	..	1,018
Sabah		277	511	..	49	..	..	80
Sarawak		319	465	..	63	..	..	72
PHILIPPINES	1988	d) 65,893	..	e) 127,329	d) 24,814	f) 779 b) 1,290	..	d) 27,732
SINGAPORE	1989	3,397	..	..	740	272	b) 37	i) 557
THAILAND ⁽⁶⁾	1988	11,260	128	..	1,670	..	..	3,681

Source: Ministry of Health in each country

(1) Personnel Bureau, 1989

(2) Centre for Health Manpower Education, 1988 (P. 118)

(3) *Establishment Book*, information and Documentation System Unit

(4) Radiological Health Service (P. 116)

(5) Professional regulation Commission (P. 118)

(6) Health Resources Report, 1988. Health Statistics Division

Note: a) Data as of Oct. 1987

b) Government only

c) DIV II. Dentist private section (P. 120)

d) Registered as of December, 1986

e) Barangay health workers active only as of December, 1985

f) Private

g) Department of Health only, 1986

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 & Midwives Aids
16	5	..	187	128	92	328	132	..
3,003	..	..	..	..	..	..	..	29,178
..	..	..	23,320	..	..	373,143	321,856	..
1,505 1,249 114 142	..	..	b) 5,501 3,913 499 1,089	..	..	b) 12,721 10,873 981 867	b) 9,429 7,818 1,284 327	..
..	d) 2,978	..	d) 63,094	..	..	160,657	..	g) 5,178
202	21	b) 310	549	..	..	j) 6,815	j) 2,422	..
1,601	569	1,602	11,122	..	..	51,091	18,144	k)

h) Ministry of Health only (P.118)

i) Pharmacists only

j) Entry used for calculation of Population/Nursing and Midwifery Personnel Ratios

k) Assistant Nurses / Auxiliary Nurses and Nursing & Midwives Aides

19-2 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	1988	8	43	23	1	10	18	
INDONESIA ⁽²⁾	1989	1,466	284	996	..	223	..	1,062
JAPAN	1988	7,114	43,605	1,496	..	24,109	3,567	..
MALAYSIA ⁽³⁾ Peninsular Malaysia Sabah Sarawak	1989	b) 173 148 7 18	b) 1,300 1,029 126 145	b) 1,234 1,051 28 155	..	..	..	b) 60 54 3 3
PHILIPPINES	1988	1,241	20,302	..	..	⁽⁴⁾ 3,486	..	1,322
SINGAPORE	1989	b) 9	b) 119	b) 34	..	b) 53	b) 43	b) 168
THAILAND ⁽⁶⁾	1988	468	1,166	..	..	..	..	72

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. Orthopaedic Technicians
25	18	2	..	..	..	..	..	..
3,948	..	..	..	..	..	2,627	46,360	34
..	..	..	27,721	..	..	..	..	..
..	..	..	..	..	..	1,091 815 99 177	..	..
g) 2,711	..	..	..	..	..	..	..	..
b) 230	b) 396	b) 61	b) 33	b) 49	..	308	9,237	..
936	..	..	..	..	..	..	..	..

19-2 Medical and Allied Health Personnel (3)

	Year	33. Malaria Field Officers	34. Medical Social Technicians	35. Health Statistics Technicians	36. Medical Statistician	37. Dental Hygienists	38. Trained or Rural Midwives	39. Traditional Birth Attendants
BRUNEI	1988	..	..	2	1	..	..	..
INDONESIA ⁽²⁾	1989	..	..	..	..	..	..	..
JAPAN	1988	..	..	..	..	41,992	..	..
MALAYSIA ⁽³⁾ Peninsular Malaysia Sabah Sarawa	1989	..	..	9 9	3 3	..	..	..
PHILIPPINES	1988	h) 250	..	..	..	(5) 6	h) 8,958	h) 31,292
SINGAPORE	1989	..	..	..	..	..	..	..
THAILAND ⁽⁶⁾	1988	..	..	..	..	112		

40. Laboratory Aids	41. Sanitary Inspectors	42. Medical Social Workers	43. Dental Practitioners	44. Veterinary Assistants	45. Nurse-midwives	46. Dental Technicians	47. Dispensers	48. Assistant Nurse-midwives
..	..	1	..	..	..	..	..	..
..	3,147	..	..	..	46,360	..	2,454	..
..	..	3,957	..	..	..	..	..	..
..	..	..	..	..	..	b) 245	b)	..
..	..	..	..	..	..	160		..
..	..	..	..	..	..	40		..
..	..	..	..	..	..	45		..
..	h) 1,988	315	..	..	..	..	..	..
..	..	b) 34	740	b) 7	..	b) 37	b) 174	..
703	..	..	..	..	..	..	..	..

19-2 Medical and Allied Health Personnel (4)

	Year	49. Nurses	50. Occupational Therapists	51. Dietitians	52. Radiographers	53. Nursing Auxiliaries	54. X-ray Assistant Technicians	55. Health Inspectors
BRUNEI	1988	..	5	5	10	..	18	25
INDONESIA ⁽²⁾	1989	27,921	..		137	..	..	516
JAPAN	1988	694,999	a) 2,558	..	..	..	..	..
MALAYSIA ⁽³⁾		b) 12,721	b)	b)				b) 974
Peninsular Malaysia	1988	10,873			362	..	..	776
Sabah		981			303	..	..	95
Sarawak		867			23	..	..	103
					36	..	..	
PHILIPPINES	1988	(5) 180,657	(5) c) 109	(5) 7,057	..	..	..	..
SINGAPORE	1989	9,237	b) 10	b) 11	b) 53	..	..	b) 230
THAILAND ⁽⁶⁾	1988	..	189	147		..	..	..

56. Assistant Health Inspectors	57. Bio-chemists	58. Health Educators	59. Midwives	60. Microscopists	61. Health Assistants	62. Entomologists	63. Dental Sugery Assistants	64. Nutritionists	65. Darkroom Assistants
..	15	4	..	8	18		..		9
3,948	..	78	18,439	..	..	..	..	1,210	..
..	..	..	23,320	..	..	..	..	a) 25,960	..
b) 2,120 1,627 216 277	b)	b)	b) 5,509 3,913 499 1,089				b) 925 829 45 51	b)	
..	..	b) 144	(5) 63,094	..	..	g) 7	..	(5) 7,057	..
b) 396	..	b) 8	547	..	..	..	..	..	..
..	74	251	..	113	..	35	..	..	—

19-3 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	1988	7.1	1,412	1.2	8,621	0.3	30,175			30.6	327	47.5	211
INDONESIA	1989	1.4	7,206	0.3	33,817	0.29	34,356	..	..	1.56	6,407	2.6	3,858
JAPAN	1988	16.5	605	5.78	1,729	11.75	781	..	..	57.0	176	58.9	170
MALAYSIA Peninsular Malaysia Sabah Sarawak	1989	3.9	2,638	0.81	12,386	0.67	14,832	1.91	5,401	7.33	1,364	10.50	952.3
		4.18	2,391	0.90	11,094	0.71	14,047	1.64	6,129	7.60	1,315	10.34	967.1
		1.95	5,128	0.34	28,990	0.56	17,756	3.59	2,997	6.91	1,448	10.42	959.8
		1.95	5,119	0.39	25,922	0.44	22,682	2.84	4,022	5.31	1,884	11.98	834.9
(1) PHILIPPINES	1988	11.2	891	4.23	2,366	4.72	2,117	..	..	2.1	4,825	3.8	2,606
SINGAPORE	1989	12.6	791	2.8	3,629	2.1	4,821	..	..	34.4	291	36.4	274
THAILAND	1988	2.07	4,832	0.31	32,585	0.68	14,783	0.02	426,062	9.37	1,065	..	..

Source: Ministry of Health in each country

(1) Professional Regulation Commission (PRC)

19-4 Number of Physicians

	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI								171		
INDONESIA	3,578	8,279	(1) 12,931	(1) 16,698	(2) 17,760	(3) 19,875	(3) 20,176	(3) 22,053	(4) 23,367	24,823
JAPAN	118,990	132,479	156,235	NA	181,101	NA	191,346	NA	201,658	NA
(5) MALAYSIA		2,757	3,858	4,474	4,505	4,939	5,394	5,794	6,274	6,577
Peninsular Malaysia	2,370	2,511	3,518	4,082	4,111	4,541	4,938	5,300	5,737	5,981
Sabah		104	141	174	174	174	216	225	252	277
Sarawak	80	142	199	218	220	224	240	269	285	319
PHILIPPINES	31,515	37,276	a) 7,259	(6) b) 47,989	(6) b) 49,602	(6) b) 49,602	(6) b) 53,556	63,340	65,893	
(7) SINGAPORE	1,363	1,622	1,976	2,361	2,504	2,631	2,781	2,939	3,162	3,397
(8) THAILAND	5,407	5,005	6,867	7,902	8,058	8,650	9,464	11,260		

Source: Ministry of Health in each country

(1) The Health Situation of Indonesia, Department of Health 1984

(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 (PRC)

(7) *Yearbook of Statistics*, Singapore 1989

(8) Health Statistics Division, Ministry of Health

Note: a) Department of Health Manpower only

b) Registered physicians (government & private) as of 1986

19-5 Number of Dentists

	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI								31		
(1) INDONESIA	452		1,681	2,364	2,664	a) 4,237	a) 4,237	a) 4,583	4,907	5,290
JAPAN	37,859	43,586	53,602	NA	63,145	NA	66,797	NA	70,572	NA
(2) b) MALAYSIA		433	691	858	957	1,041	1,130	1,220	1,288	1,401
Peninsular Malaysia	15	9	630	774	867	949	1,030	1,106	1,183	1,289
Sabah			25	48	40	36	46	51	47	49
Sarawak			36	36	50	56	60	63	58	83
PHILIPPINES	12,174	13,096	c) 1,029	d) 8,057	(3) d) 20,304	(3) d) 20,542	(3) d) 22,467	23,725	24,814	
(4) SINGAPORE	398	419	485	555	588	604	632	654	688	740
THAILAND	683	652	1,169	1,247	1,326	1,451	1,395	1,468	1,670	

Source: Ministry of Health in each country

(1) The Health Situation of Indonesia, 1984

(2) Dental Council

(3) Professional Regulation Commissioner (PRC)

(4) Ministry of Health

Note: a) Personnel Bureau, June, 1987

b) As of December 31

c) Government and private

d) Registered as of 1986, government and private

19-6 Number of Pharmacists

	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI								9		
(1) INDONESIA	1,486	1,847	3,013	3,587	a) 3,926	a) 4,268	a) 4,513	a) 4,814	a) 5,085	5,207
JAPAN	79,393	94,362	116,056	NA	129,700	NA	135,990	NA	143,429	NA
MALAYSIA		258	488	(2) 676	b) 734	b) 843	b) 963	b) 1,050	1,084	1,170
Peninsular Malaysia				(2) 598	b) 676	732	828	929	956	1,018
Sabah			(3) 17	(4) 37	b) 29	64	84	64	70	80
Sarawak				(2) 41	b) 29	47	51	57	58	72
PHILIPPINES	19,076	20,838	c) 518	d) 25,337	(5) d) 26,005	(5) d) 26,005	26,854	27,493	27,732	
(6) SINGAPORE	245	288	368	387	409	436	454	487	526	557
(7) THAILAND	1,407	1,913	2,650	2,990	3,312	3,376	3,356	3,622	3,681	

Source: Ministry of Health in each country

(1) The Health Situation of Indonesia, Department of Health 1984

(2) *Indicator for Monitoring and Evaluation of Strategy for Health for All by the year 2000*, Information and Documentation System Unit, Ministry of Health

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

(4) Data provided by Medical Department

(5) Professional Regulation Commissioner (PRC)

(6) *Yearbook of Statistics*, Singapore 1989

(7) Health Statistics Division, Ministry of Public Health

Note: a) Directorate General, Food & Drugs Control, Ministry of Health Indonesia,

b) Pharmacy Board, Ministry of Health

c) Department of Health Manpower only

d) Registered pharmacists (government & private) as of 1986

19-7 Number of Midwives

	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI								185		
(1) INDONESIA	3,752	10,720	16,472	17,486	17,685	(2) 51,375	(3) 22,500	(2) 511	(4) 15,393	(5) 18,439
JAPAN	28,087	26,742	25,867	NA	24,649	NA	24,056	NA	23,320	NA
(6) MALAYSIA								(7) a) 5,256	5,389	5,509
Peninsular Malaysia		3,767	(6) 5,002	(6) 5,432	(6) 5,468	5,673	(7) 3,795	3,819	3,883	3,913
Sabah					400	—	—	444	472	499
Sarawak						970	—	993	1,034	1,089
(8) PHILIPPINES	16,082	26,680	b) 9,329	14,021	c) 62,972	c) 62,972	c) 65,899	60,169	63,094	
(9) SINGAPORE	1,058	930	779	710	652	650	601	586	571	549
(10) THAILAND	4,203	6,335	8,669	9,100	8,573	7,716	6,279	8,934	11,122	

Source: Ministry of Health in each country

- (1) *The Health Situation of Indonesia*, Department of Health, 1984
- (2) Centre for Health Manpower Education, Ministry of Health 1987
- (3) Internation General, Ministry of Health, September, 1987
- (4) Centre for Health Manpower Education, Ministry of Health 1988
- (5) Biro Kepegawaian, Data Jumlah yang bekerja di Depkes
- (6) Nursing Board, Ministry of Health
- (7) Division II, Midwives & Jururawat Desa

(8) Professional Regulation Commissioner (PRC)

(9) *Yearbook of Statistics*, Singapore 1989

(10) Health Statistics Division, Ministry of Public Health

Note: a) Government only

b) Department of Health Manpower only

c) Registered as of 1986, government & private

19-8 Number of Nurses

	1970	1975	1980	1983	1984	1985	1986	1987	1988	1989
BRUNEI								779		
(1) INDONESIA		9,856	20,201	22,487	(2) 25,834	(2) 30,515	(2) 37,618	(2) 50,881	23,084	(3) 27,921
JAPAN	273,572	361,604	487,169	NA	590,177	NA	639,936	NA	694,999	NA
(4) MALAYSIA Peninsular Malaysia Sabah Sarawak			15,392	17,916 640	18,653 695 623	19,479 779 778	20,170 — —	21,340 — —	22,020 — —	22752
(5) PHILIPPINES	38,918	64,155	a) 9,605	a) 11,917	b) 146,891	a) 146,891	b) 151,870	155,747	160,657	
(6) SINGAPORE	4,304	5,767	7,545	7,714	7,830	8,395	8,568	8,713	8,994	9,237
(7) THAILAND	15,387	18,993	18,483	26,444	31,827	38,683	40,952	45,038	51,091	

Source: Ministry of Health in each country

(1) *The Health Situation of Indonesia, 1984*

(2) Centre for Health Manpower

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

(4) Nursing Board, Ministry of Health

(5) Professional Regulation Commissioner (PRC)

(6) *Yearbook of Statistics, Singapore 1989*

(7) Health Statistics Division

Note: a) Department of Health Manpower only

b) Registered as of 1986, government & private

20-1 Situation of Medical Schools

	Academic Year	Number of Medical Schools	Duration of Studies	Total Enrolment	Admissions	Graduates
BRUNEI						
(1) INDONESIA	1988	24	6 Years		7,829	a) 1,646
(2) JAPAN	1990	80	6 Years		7,950	b) 7,862
(3) MALAYSIA	1988/89	3	6 Years	2,120	—	—
(4) PHILIPPINES	1985/86 1984/85 1986/87 1988/89	27 27 27 26	Pre - Med - 4 Years proper - 4 Years Intern - 1 Year	14,490 12,652 9,868	1,853 2,353 2,873	3,188 2,798 3,235
(5) SINGAPORE	1989/90	1	5 Years	c) 820 d) 103	c) 150 d) 10	c) 173 d) 34
(6) THAILAND	1988	8	6 Years			698

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 Health

Note: a) Data up to July 1986
b) Those who succeeded in national examination
c) Singaporeans
d) Non - Singaporeans