

SEAMIC HEALTH STATISTICS

1983

Compiled

*With the Compliments
of*

SEAMIC

Japan

SEAMIC

Southeast Asian Medical Information Center

Tokyo, 1983

© Copyright 1984 by SEAMIC/IMFJ

SOUTHEAST ASIAN MEDICAL INFORMATION CENTER
INTERNATIONAL MEDICAL FOUNDATION OF JAPAN

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

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

PREFACE

Because statistics are indispensable in the planning and evaluation of any societal program, it goes without saying that they are of great importance in developing programs in the health and medical field. Thus, through the SEAMIC activities, efforts have been made to collect facts and figures relevant to health and medical care in the SEAMIC countries and to compile secondary statistics and other reference materials.

This publication is the result of such collaborative efforts among the SEAMIC counterparts. It is our hope that the SEAMIC HEALTH STATISTICS, as small a publication as it is, may, with its more updated, improved, and enlarged contents, serve as a *vade mecum* for all people engaged in or concerned with health planning in the Southeast Asian region.

February, 1984

Shigeru Takabayashi

Coordinator
SEAMIC Committee on Health Statistics

For the better use of the statistics, background descriptions of the health statistics in each SEAMIC country and Japan have been newly included in the 1983 revision.

March 1984.

S.T.

**Members of the SEAMIC
Committee on Health Statistics**

Mr. Shigeru Takabayashi (Coordinator)
Dr. Kazuo Fukutomi
Ms. Yasuko Hayase
Dr. Takefumi Kondo
Dr. Yutaka Inaba
Mr. Seiji Ohsawa
Dr. Toshiro Shibuya
Dr. Minoru Uematsu (Advisor)

**Counterparts of the SEAMIC
Committee on Health Statistics**

Dr. Sriati da Costa (Indonesia)
Mr. Haris bin Hasan (Malaysia)
Dr. Andres Galvez (Philippines)
Dr. Chen Ai Ju (Singapore)
Dr. Chalermsook Boonthai (Thailand)

Contents

Preface 3

Members and Counterparts of the SEAMIC Committee on Health Statistics 4

PART I SEAMIC HEALTH STATISTICS	9
1 – 1. Area and Population	11
1 – 2. Estimates of Mid-Year Population	12
1 – 3. Population by Age and Sex	13
1 – 4. Population by Sex and Urban Rural Residence	15
2 – 1. Deaths and Death Rates for All Causes (age groups)	25
3 – 1. Ten Leading Causes of Death	27
4 – 1. Deaths and Death Rates by Cause (ICD-8 "A")	29
4 – 2. Deaths and Death Rates by Cause (ICD-9 "A")	45
5 – 1. Number of Cases of Infections	62
5 – 2. Number of Cases of Venereal Diseases	64
6 – 1. Seasonal Distribution of Cholera (Cases)	65
6 – 2. Seasonal Distribution of Typhoid Fever (Cases)	66
6 – 3. Seasonal Distribution of Paratyphoid Fever (Cases)	67
6 – 4. Seasonal Distribution of Bacillary Dysentery (Cases)	68
6 – 5. Seasonal Distribution of Food Poisoning (Cases)	69

7 – 1.	Notifiable Infectious Diseases	70
8 – 1.	Infectious Diseases Specified by Immunization Program	72
9 – 1.	Crude Live-birth Rates	73
9 – 2.	Crude Death Rates	74
9 – 3.	Vital Statistics Rates	75
9 – 4.	Natality, General Mortality and Natural Increase	76
10 – 1.	Late Fetal, Infant, Neonatal, Post-neonatal and Perinatal Mortality	77
10 – 2.	Infant Deaths and Infant Mortality Rates by Age and Sex	78
10 – 3.	Maternal Deaths	79
10 – 4.	Maternal Mortality Rates	80
11 – 1.	Expectation of Life at Specified Ages for Each Sex	84
11 – 2.	Number of Surviving out of 100,000 Born Alive by Age and Sex	86
12 – 1.	Per Capita Food Supplies	88
13 – 1.	Housing Conditions	90
14 – 1.	Mean Length from Birth to One Year	91
14 – 2.	Mean Weight from Birth to One Year	92
14 – 3.	Mean Chest Circumference from Birth to One Year	93
14 – 4.	Mean Height by Age (1–18 year)	94
14 – 5.	Mean Weight by Age (1–18 year)	96
15 – 1.	Definition of the Main Terms Used in the Hospital Statistics (WHO)	98
15 – 2.	Comparative Table of Medical Facilities	99
15 – 3.	Hospital and Other Medical Establishments with Beds	102
15 – 4.	Hospital Utilization by Category of Hospitals	110

15 — 5.	Number of Hospitals	114
15 — 6.	Number of Beds	115
16 — 1.	Definition of Medical Personnel (WHO)	116
16 — 2.	Comparative Table of Medical Personnel	119
16 — 3.	Medical and Allied Health Personnel	122
16 — 4.	Population/Health Personnel Ratios	130
16 — 5.	Number of Medical Personnel (in Year) — Physicians/Dentists/ Pharmacists/Midwives/Nurses	131
17 — 1.	Situation of Medical Schools	136

(Figures)

Fig. 1.	Population Pyramid	17
Fig. 2.	Annual Change of Crude Birth Rate	23
Fig. 3.	Annual Change of Crude Death Rate	24
Fig. 4.	Number of Surviving out of 100,000 Born Alive at Selected Ages by Sex	81
Fig. 5.	Annual Change of Number of Hospitals	100
Fig. 6.	Annual Change of Number of Beds	101
Fig. 7.	Annual Change of Number of Physicians	120
Fig. 8.	Annual Change of Number of Nurses and Midwives	121

(Appendix)

List of Organizations Related to Health Statistics	137
--	-----

PART II THE OUTLINE OF HEALTH STATISTICS IN SEAMIC COUNTRIES AND JAPAN

PART II THE OUTLINE OF HEALTH STATISTICS IN SEAMIC COUNTRIES AND JAPAN	139
Sources of Medical and Health Statistics in Indonesia	141
Health Statistical Information System in Malaysia	146
Health Statistics in the Philippines	159
Sources of Medical and Health Statistics in Singapore	163
Health Statistics in Thailand	173
Health Resources Statistics in Japan	179

EXPLANATION OF SYMBOLS

• • Category not applicable

(blank) Data not available

— Nil

0 Not nil, but less than half of unit employed
0.0

* Provisional or estimated

Part I

SEAMIC HEALTH STATISTICS

1-1. Area and Population

	Area ⁽¹⁾ (km ²)	Date	Latest Census		
			Total	Male	Female
INDONESIA	1,919,413 ⁽⁸⁾	31 Oct. 1980 ⁽²⁾	147,490,298	73,332,544	74,157,754
JAPAN	372,313	1 Oct. 1980 ⁽³⁾	116,916,400	57,490,400	59,426,100
MALAYSIA	329,749		13,435,588	6,747,966	6,687,622
Peninsular Malaysia	131,588	10 June 1980 ⁽⁴⁾	11,138,227	5,570,198	5,568,029
Sabah	73,711	10 June 1980 ⁽⁴⁾	1,002,608	524,319	478,289
Sarawak	124,450	10 June 1980 ⁽⁴⁾	1,294,753	653,449	641,304
PHILIPPINES	300,000	1 May 1980 ⁽⁵⁾	48,098,460	23,904,970 ^(a)	24,193,490 ^(a)
SINGAPORE	618	24 June 1980 ⁽⁶⁾	2,413,945	1,231,760	1,182,185
THAILAND	514,000	1 June 1980 ⁽⁷⁾	44,278,000	22,008,000	22,270,000

Source: (1) Demographic Yearbook 1980, UN

(2) Penduduk Indonesia Menurut Propinsi, Seri: L No. 3, Hasil Pencacahan Lengkap Sensus Penduduk 1980, Biro Pusat Statistik, Jakarta, Indonesia, May 1981

(3) 1980 Population Census of Japan, Prompt Report of the Basic Findings, Part 1, Whole Japan, Statistics Bureau, Prime Minister's Office, Japan, March 1981

(4) 1980 Population and Housing Census of Malaysia, Preliminary Field Count Summary, Department of Statistics, Malaysia, Oct. 1980

(5) Philippines 1980, National Census and Statistics Office, Republic of the Philippines, Special Report No. 3

(6) Census of Population 1980 Singapore, Department of Statistics, Singapore, Jan. 1981

(7) Preliminary Report, 1980 Population and Housing Census, National Statistical Office, Thailand

(8) Proyekan Penduduk Indonesia 1980-2000, Serie: LPDG-0661-8301, Biro Pusat Statistik

Note: (a) Estimates based on sex ratio at 1975 Population Census.

1-2. Estimates of Mid-Year Population

(in millions)

Year	Population Estimates								
	1970	1975	1976	1977	1978	1979	1980	1981	1982
INDONESIA ⁽¹⁾	119.47	130.50	133.53	136.63	139.80	143.04	146.36	149.68	152.99
JAPAN	104.34	111.57	112.77	113.86	114.90	115.87	116.78	117.65	118.45
MALAYSIA	10.39	11.90	12.30	12.60	12.91	13.30*	13.44	14.42*	14.77
PHILIPPINES	36.85	42.26	43.34	44.42	45.50	46.58	48.40	49.53	50.74
SINGAPORE	2.07	2.26	2.29	2.33	2.35	2.38	2.41	2.44	2.47 ⁽²⁾
THAILAND	36.37	41.87	42.96	44.04	45.10	46.14	46.50	47.49	48.56 ^{(3),(a)}

Source: Monthly Bulletin of Statistics Sept. 1983 Vol. XXXVII No. 9, United Nations, New York, 1983

(1) Proyekan Penduduk Indonesia 1980-2000 Serie LPDG-0661-8301, Biro Pusat Statistik

(2) Yearbook of Statistics, Singapore 1982/83

(3) Report of Working Group on Population Projections, National Statistical Office, July 1981

Note: (a) Estimates based on total population figures, 1970 Population & Housing Census, National Statistical Office, Thailand

1-3. Population by Age and Sex (1)

(in thousands)

	Year	Sex	Age									
			All Ages	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39
INDONESIA ⁽¹⁾	1980	T	148,040	3,901	18,480	19,760	17,552	15,515	13,971	11,403	8,926	8,275
		M	73,611	1,990	9,439	10,031	8,854	7,780	6,961	5,646	4,397	4,049
		F	74,429	1,911	9,042	9,729	8,698	7,735	7,011	5,758	4,529	4,226
JAPAN ⁽²⁾	1980	T	117,060	1,587	6,928	10,032	8,960	8,272	7,841	9,041	10,772	9,202
		M	57,594	814	3,552	5,142	4,595	4,224	3,960	4,545	5,422	4,595
		F	59,467	773	3,376	4,890	4,365	4,049	3,881	4,996	5,350	4,607
MALAYSIA ⁽³⁾ Peninsular Malaysia	1978	T	10,762	311	1,225	1,363	1,356	1,300	1,101	872	643	525
		M	5,406	160	627	693	691	661	553	428	316	261
		F	5,355	151	598	669	665	638	549	443	326	264
PHILIPPINES ⁽⁴⁾	1978	T	45,528	7,603		6,511	5,600	4,598	4,006	3,551	2,868	2,322
		M	22,901	3,869		3,324	2,914	2,276	1,912	1,684	1,457	1,184
		F	22,627	3,734		3,187	2,686	2,322	2,094	1,867	1,411	1,138
SINGAPORE ⁽⁵⁾	1982	T	2,471	195		212	225	270	299	273	231	152
		M	1,260	101		110	116	138	155	140	117	77
		F	1,211	93		102	109	131	144	133	113	74
THAILAND ⁽⁶⁾	1980	T	46,455	6,391		6,135	6,155	5,314	4,450	3,822	3,219	2,426
		M	23,347	3,263		3,126	3,137	2,692	2,258	1,936	1,638	1,223
		F	23,108	3,129		3,009	3,018	2,622	2,192	1,886	1,581	1,203

Source: (1) Proyekan Penduduk Indonesia 1980-2000, LPDG-0661-8301, Biro Pusat Statistik

(2) 1980 Population Census of Japan, Statistical Bureau, Prime Minister's Office

(3) Demographic Yearbook 1980, UN

(4) 1978 Philippine Health Statistics, Ministry of Health, Manila

(5) Yearbook of Statistics, Singapore 1982/83

(6) Statistical Yearbook Thailand, No. 32 1976-80, National Statistical Office

1-3. Population by Age and Sex (2)

(in thousands)

	Year	Sex	Age								Age Unknown
			40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & +	
INDONESIA	1980	T	7,556	6,308	4,982	3,660	2,834	2,099	1,440	1,378	
		M	3,671	3,041	2,386	1,740	1,338	983	670	636	
		F	3,885	3,267	2,596	1,920	1,446	1,116	770	742	
JAPAN	1980	T	8,338	8,090	7,200	5,614	4,465	3,965	3,023	3,660	71
		M	4,159	4,033	3,547	2,511	1,946	1,744	1,318	1,439	49
		F	4,179	4,057	3,653	3,102	2,519	2,221	1,705	2,221	23
MALAYSIA Peninsular Malaysia	1980	T	483	381	329	267	221	163	118	106	
		M	237	186	162	130	111	82	59	50	
		F	246	195	167	137	110	81	59	56	
PHILIPPINES	1978	T	1,867	1,548	1,366	1,229	1,002	683	774		
		M	956	729	637	546	455	319	364		
		F	911	819	729	683	547	364	410		
SINGAPORE	1982	T	141	111	98	76	62	49	71		
		M	71	56	50	39	31	23	← 30 →		
		F	70	55	48	36	30	25	40		
THAILAND	1980	T	1,902	1,716	1,441	1,176	848	640	820		
		M	932	830	697	563	400	296	356		
		F	970	886	744	613	448	344	464		

1-4. Population by Sex and Urban Rural Residence

	Year	Sex	Urban	Rural	Urban Pop./Total Pop. (%)
INDONESIA ⁽¹⁾	1980	T	32,845,769	113,930,704	22.4
		M	16,441,891	56,509,779	22.5
		F	16,403,878	57,420,925	22.2
JAPAN ⁽²⁾	1980	T	89,187,409	27,872,987	76.2
		M	44,026,960	13,566,809	76.4
		F	45,160,449	14,306,178	75.9
MALAYSIA ⁽³⁾	1980		4,597,117	8,889,316	34.1
Peninsular Malaysia	1980	T	4,162,539	7,025,561	37.2
Sabah	1980	T	206,894	796,593	20.6
Sarawak	1980	T	227,684	1,067,162	17.6
PHILIPPINES ⁽⁴⁾	1980	T	17,943,897	30,154,563	37.3
		M	8,765,276	15,363,479	36.3
		F	9,178,621	14,791,984	38.3
SINGAPORE ⁽⁵⁾	1982	T	2,471,800	—	100.0
		M	1,260,400	—	100.0
		F	1,211,400	—	100.0
THAILAND ⁽⁶⁾	1980	T	8,279,979	38,681,359	17.6
		M	4,197,301	19,430,246	17.8
		F	4,082,678	19,250,933	17.5

Source: (1) Population of Indonesia, SPLY-0661-8202 Serie S No. 2 BPS

(2) 1980 Population Census of Japan, Statistical Bureau, Prime Minister's Office

(3) 1980 Population and Housing Census of Malaysia, Preliminary Field Count Summary, Department of Statistics, Malaysia

(4) National Census and Statistics Office, 1980

(5) Yearbook of Statistics, Singapore 1982/83

(6) Statistical Yearbook Thailand, No. 32 1976-80, National Statistical Office

Fig. 1. Population Pyramid (1)

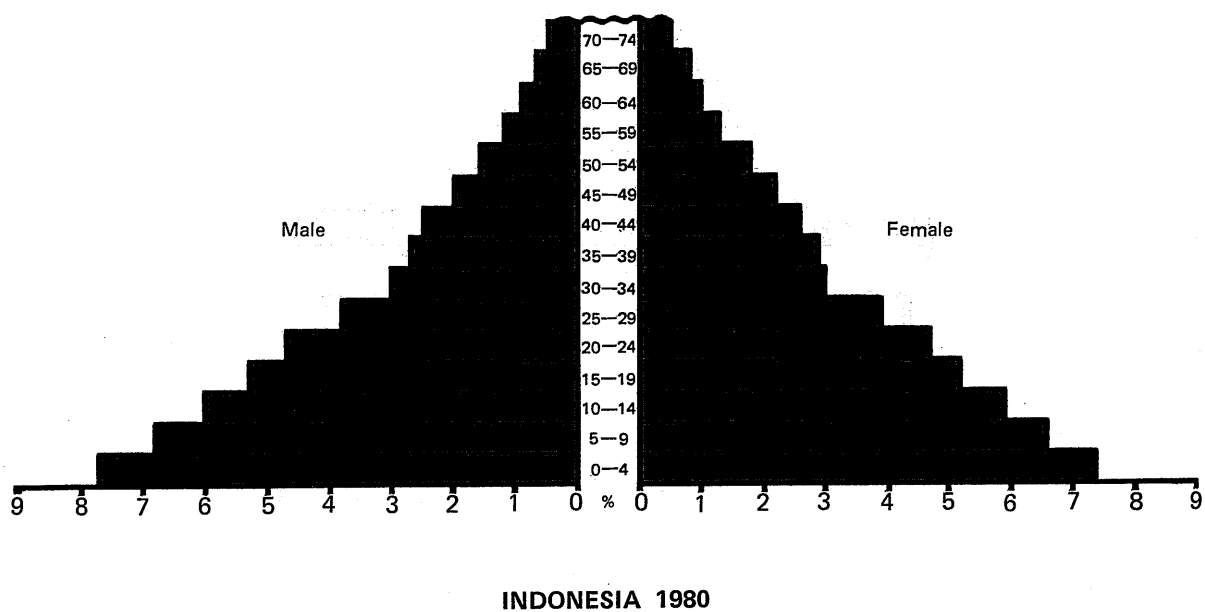
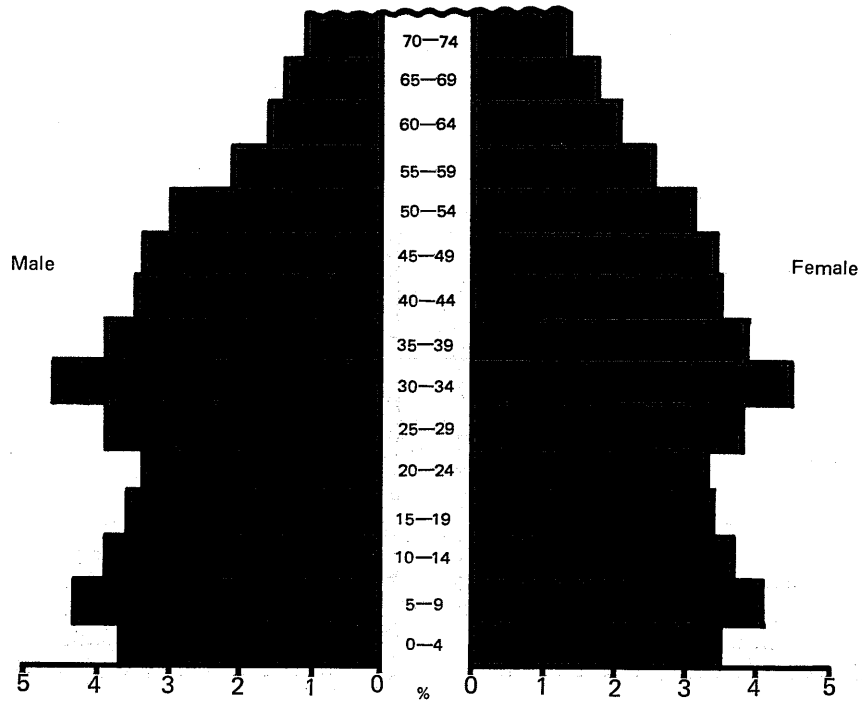
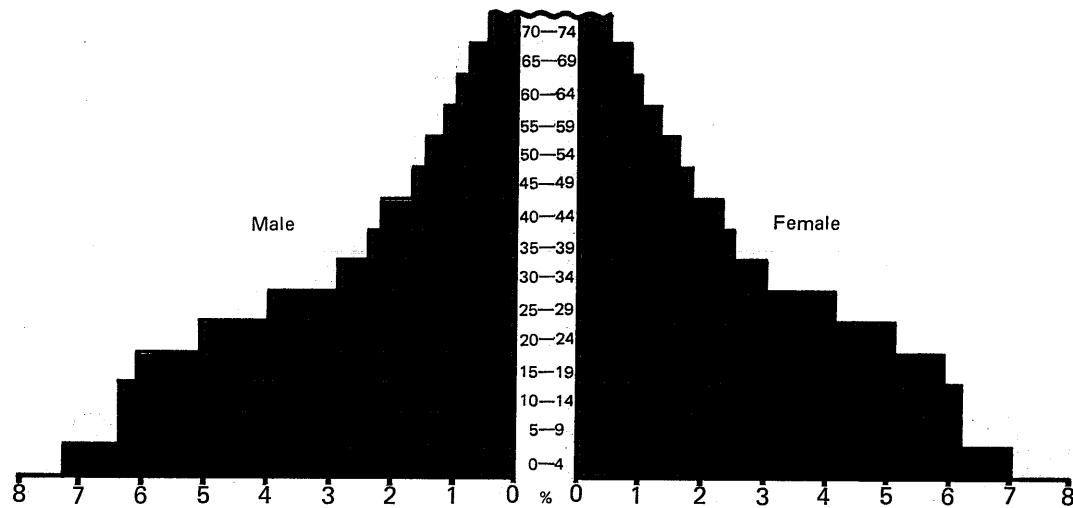


Fig. 1. Population Pyramid (2)



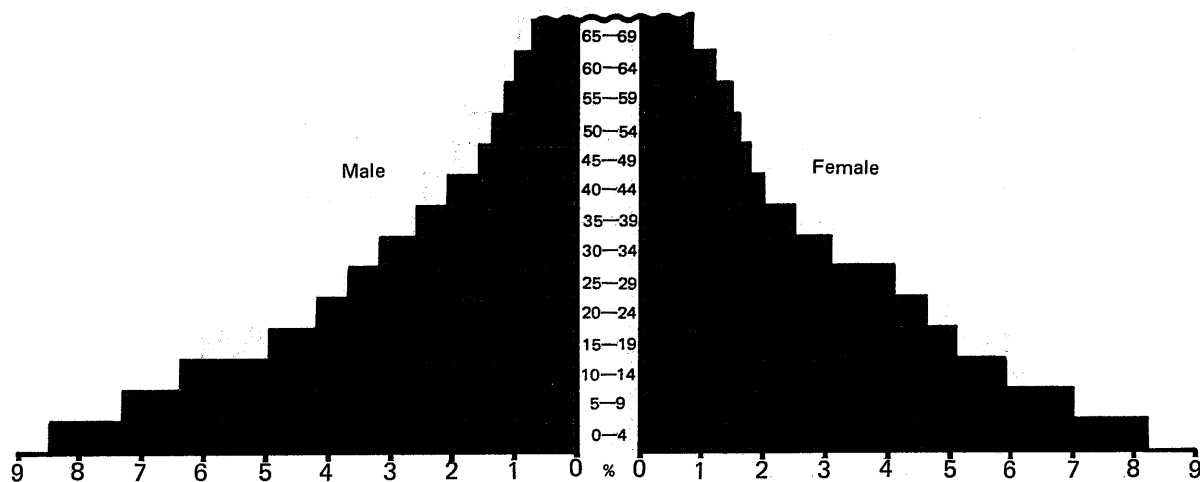
JAPAN 1980

Fig. 1. Population Pyramid (3)



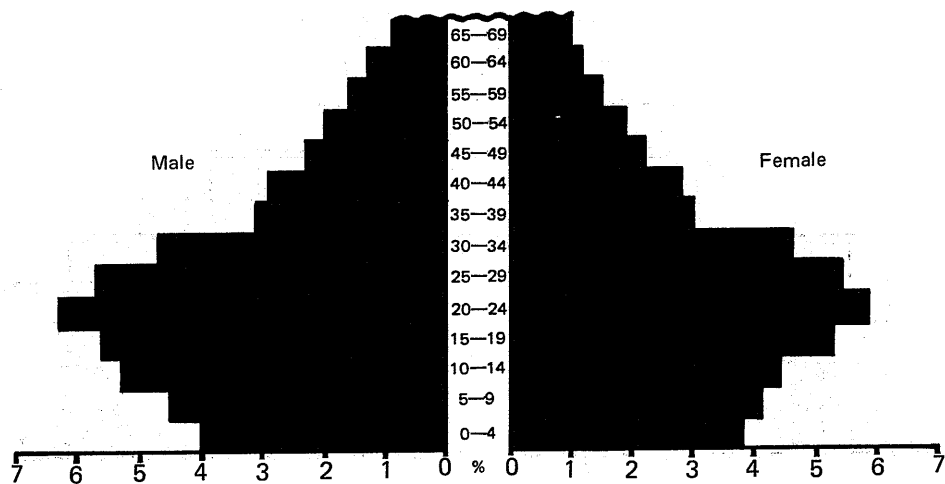
PENINSULAR MALAYSIA 1978

Fig. 1. Population Pyramid (4)



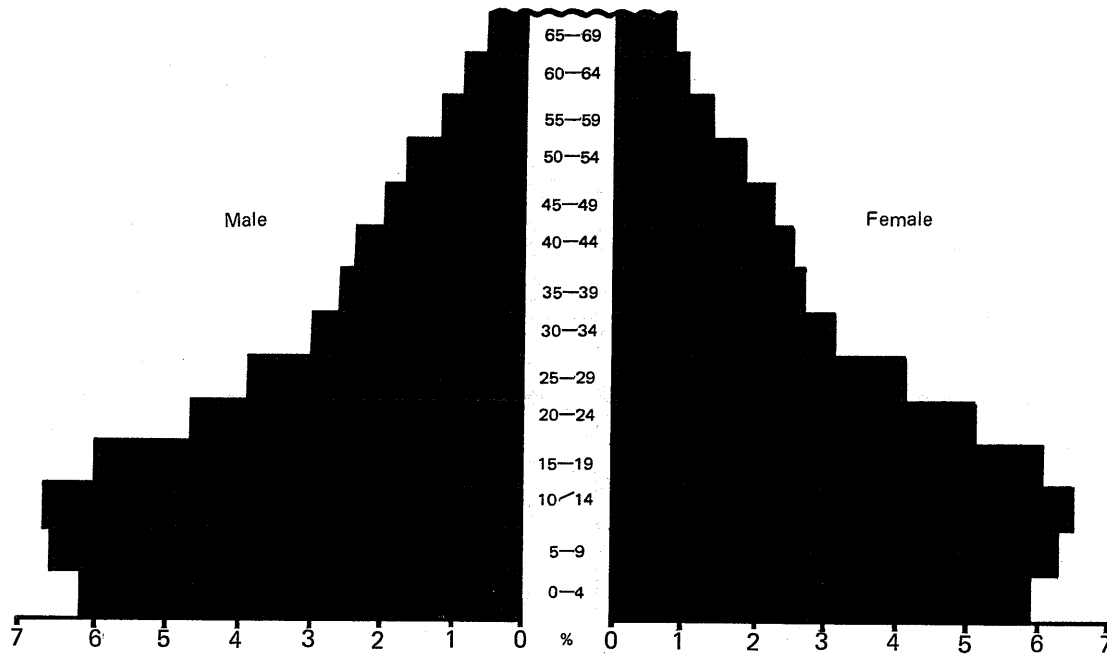
PHILIPPINES 1978

Fig. 1. Population Pyramid (5)



SINGAPORE 1982

Fig. 1. Population Pyarmid (6)



THAILAND 1980

Fig. 2. Annual Change of Crude Birth Rate (Per 1000)

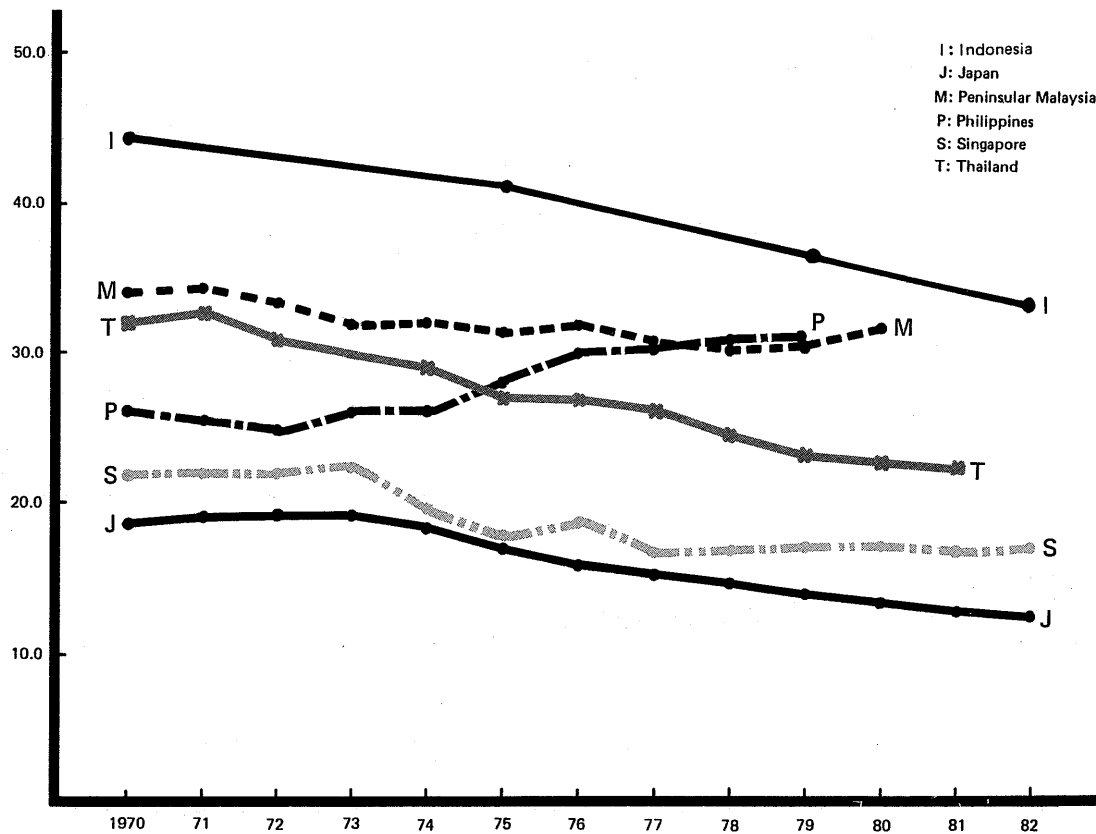
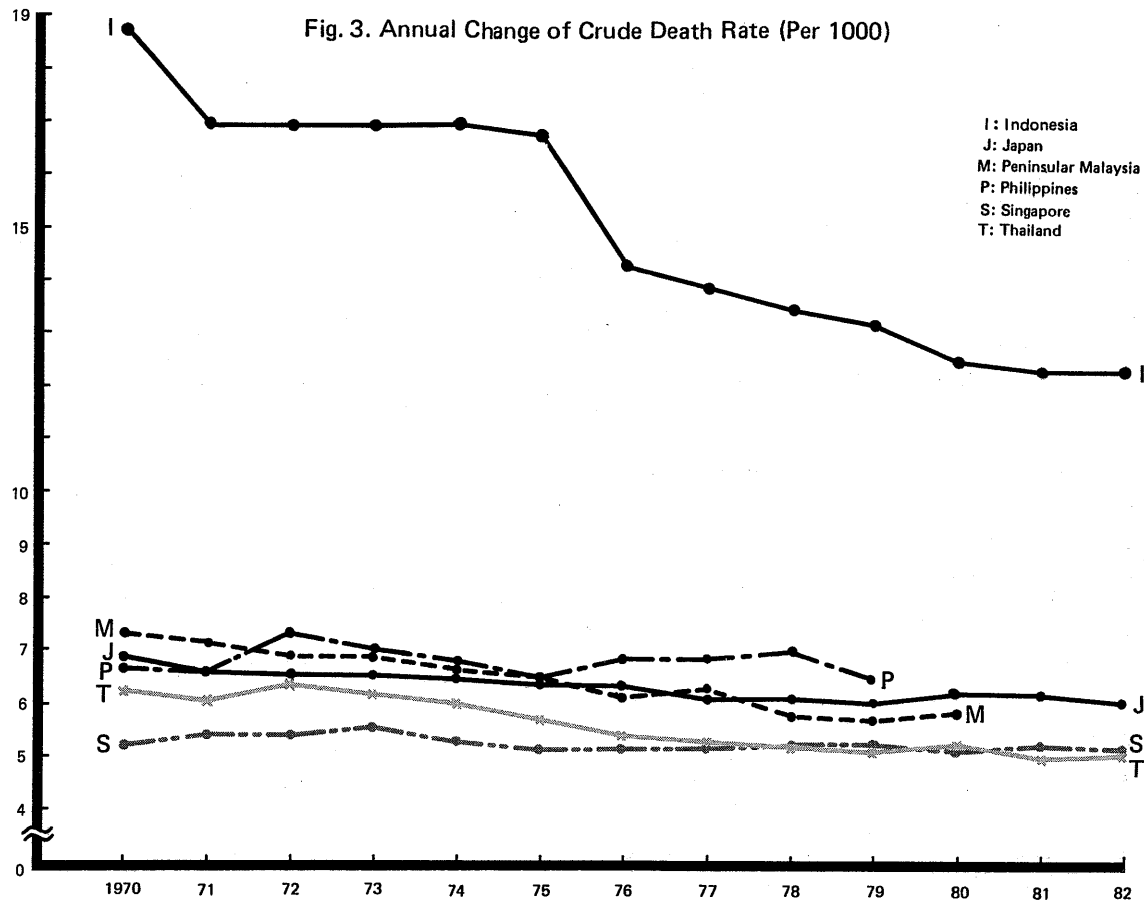


Fig. 3. Annual Change of Crude Death Rate (Per 1000)



2-1. Deaths and Death Rates for All Causes (age groups) (1)

(Rate: Per 100,000 Population)

	Sex	All Ages		0		1-4		5-14		15-24		25-34	
		Number	Rate	N	R	N	R	N	R	N	R	N	R
INDONESIA ⁽¹⁾	T M F	0.12 ^(a)		1.05		0.20		0.02		0.02		0.03	
JAPAN ⁽²⁾	T M F	722,801	618.2	11,841	746.6	4,457	63.8	4,400	23.2	8,893	55.5	15,045	75.8
		390,644	679.5	6,754	826.9	2,598	72.7	2,778	28.6	6,387	78.4	9,641	96.6
		332,157	558.9	5,087	661.3	1,859	54.5	1,622	17.5	2,506	31.8	5,404	54.8
MALAYSIA	T												
PHILIPPINES ⁽³⁾	T M F	297,034	6.5 ^(b)	73,640	46.2	36,266	6.0	16,365	1.4	15,876	1.8	16,599	2.3
		169,332	7.5	41,837	51.1	19,403	6.4	9,334	1.5	10,204	2.4	10,681	3.4
		127,702	5.6	31,803	41.1	16,863	5.7	7,031	1.2	5,672	1.3	5,918	1.8
SINGAPORE ⁽⁴⁾	T M F	12,855	526.1	447	1,064.3	109	71.3	142	31.8	434	74.8	512	104.4
		7,370	591.4	252	1,161.3	50	62.7	78	33.9	297	99.3	336	134.5
		5,485	458.2	195	960.6	59	80.7	64	29.6	137	48.8	176	73.2
THAILAND ⁽⁵⁾	T M F	247,402	510.2	13,286		12,911		11,689	94.8	18,932	180.2	18,662	250.4
		144,066	591.1	7,792		7,000		6,607	105.1	12,569	235.9	12,841	339.9
		103,336	428.5	5,494		5,911		5,082	84.1	6,363	122.9	5,821	158.4

Source: (1) House Hold Health Survey in Indonesia 1980

(2) World Health Statistics Annual 1982, WHO

(3) Philippine Health Statistics, Ministry of Health, Manila 1978

(4) Report on Registration of Births and Deaths, 1981, Department of Statistics, Singapore

(5) World Health Statistics Annual 1982, WHO

Note: (a) rates were calculated by sampling survey

(b) rate: per 1,000 population

2-1. Deaths and Death Rates for All Causes (age groups) (2)

	Sex	35-44		45-54		55-64		65-74		75 & over		Unknown
		Number	Rate	N	R	N	R	N	R	N	R	N
INDONESIA	T M F		0.07		0.15	0.44						
JAPAN	T M F	27,586 17,814 9,772	157.4 203.8 111.2	60,299 39,942 20,357	395.6 528.4 264.9	86,885 52,192 34,693	860.5 1,168.3 616.2	172,990 101,067 71,423	2,496.1 3,333.2 1,845.0	330,077 151,195 178,882	9,058.1 10,558.3 8,086.9	28 76 52
MALAYSIA	T M F											
PHILIPPINES	T M F	18,124 11,340 6,784	4.3 5.3 3.3	21,106 13,242 7,864	7.2 9.7 5.1	27,306 16,332 10,974	12.2 16.3 8.9	70,365 36,095 34,270	48.3 52.8 44.3			1,387 864 523
SINGAPORE	T M F	569 355 214	208.3 256.5 158.9	1,392 888 504	672.5 837.7 499.0	2,340 1,538 802	1,741.1 2,238.7 1,220.7	3,479 2,087 1,392	4,117.2 5,230.6 3,121.1	3,384 1,450 1,934	10,348.6 11,417.3 9,670.0	47 39 8
THAILAND	T M F	19,342 12,370 6,972	402.9 513.1 291.7	28,553 17,778 10,775	1,306.2 1,131.6 639.1	32,416 18,837 12,844	1,482.9 1,883.7 1,119.8	38,060 21,610 16,450	3,392.2 4,220.7 2,696.7	46,757 21,987 24,770	11,001.6 12,422.0 9,987.9	6,794 3,940 2,854

3-1. Ten Leading Causes of Death (1)

	Year	1	2	3	4	5
INDONESIA ⁽¹⁾	1980	Lower Respiratory Tract Infection	Diarrhoea	Cardiovascular Disorders	Tuberculosis	Tetanus
JAPAN ⁽²⁾	1981	Malignant Neoplasms	Cerebrovascular Diseases	Heart diseases	Pneumonia and Bronchitis	Senility without Mention of Psychosis
MALAYSIA						
PHILIPPINES ⁽³⁾	1978	Infective and Parasitic Diseases	Diseases of the Respiratory System	Diseases of the Circulatory System	Symptoms and Ill-defined Conditions	Certain Causes of Perinatal Mortality
SINGAPORE ⁽⁴⁾	1981	Diseases of the Circulatory System	Neoplasms	Diseases of the Respiratory System	Accidents, Poisonings and Violence	Infective and Parasitic Diseases
THAILAND	1982	Symptoms, Signs and Ill-defined conditions	Accidents, Poisonings and Violence	Diseases of the Circulatory System	Infective and Parasitic Diseases	Neoplasms

Source: (1) House Hold Health Survey in Indonesia 1980
 (2) Health and Welfare Statistics Association, Japan 1983
 (3) Philippine Health Statistics Ministry of Health, Manila 1978
 (4) Report on Registration of Births and Deaths, Singapore 1981

3-1. Ten Leading Causes of Death (2)

	Year	6	7	8	9	10
INDONESIA⁽¹⁾	1980	Diseases of the Nervous System	Liver Disorders	Injuries and Accidents	Neoplasms	Typhoid
JAPAN⁽²⁾	1981	Accidents	Suicide	Cirrhosis of liver	Hypertensive Diseases	Renal Diseases
MALAYSIA						
PHILIPPINES⁽³⁾	1978	Accidents, Poisonings and Violence	Neoplasms	Diseases of the Digestive System	Endocrine, Nutritional and Metabolic Diseases	Diseases of the Nervous System and Sense Organs
SINGAPORE⁽⁴⁾	1981	Endocrine, Nutritional and Metabolic Diseases and Immunity Disorders	Symptoms, Signs and Ill-defined Conditions	Diseases of Digestive System	Diseases of the Genito-urinary System	Certain Conditions Originating in the Perinatal Period
THAILAND	1982	Diseases of the Digestive System	Diseases of the Respiratory System	Diseases of the Nervous System and Sense Organ	Diseases of Genito-urinary System	Certain Conditions Originating in the Perinatal Period

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (1)

(Rate: Per 100,000 Population)

	Year	Sex	All Causes		I (A1-A44)		A2		A5		A6	
					Infective and Parasitic Diseases		Typhoid Fever		Enteritis and Other Diarrhoeal Diseases		Tuberculosis of Respiratory System	
			Number	Rate	N	R	N	R	N	R	N	R
INDONESIA ⁽¹⁾	1980	T M F		746.3		295.2		24.7		130.3		62.7
JAPAN	1978	T	659,821	607.6	13,766	12.0	1	0.0	2,317	2.0	7,917	6.9
		M	375,625	666.5	8,678	15.4	—	—	962	1.7	5,780	10.3
		F	320,196	550.6	5,088	8.7	1	0.0	1,355	2.3	2,137	3.7
MALAYSIA		T M F										
PHILIPPINES ⁽²⁾	1978	T	297,034	652.4	66,511	146.1	769	1.7	15,717	34.5	27,178	59.7
		M	169,332	748.3	38,340	169.4	482	2.1	8,906	39.4	15,806	69.9
		F	127,702	557.6	28,171	123.0	287	1.3	6,811	29.7	11,372	49.7
SINGAPORE	1978	T	12,064	516.8	502	21.5	1	0.0	54	2.3	287	12.3
		M	7,025	590.6	354	29.8	—	—	27	2.3	246	20.7
		F	5,039	440.1	148	12.9	1	0.1	27	2.4	41	3.6
THAILAND	1978	T	233,216	518.5	26,075	58.0	519	1.2	7,427	16.5	6,614	14.7
		M	133,975	592.9	15,365	68.0	297	1.3	4,305	19.1	4,148	18.4
		F	99,241	443.4	10,710	47.9	222	1.0	3,122	13.9	2,466	11.0

Source: World Health Statistics Annual 1980

(1) House Hold Health Survey in Indonesia 1980

(2) Philippine Health Statistics, Ministry of Health, Manila 1978

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (2)

	Year	Sex	A7-A10		A20		A25		A28		Other Diseases	
			Tuberculosis, Other Forms		Tetanus		Measles		Infectious Hepatitis			
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F			48.6		2.5				13.2	
JAPAN	1978	T M F	344 169 175	0.3 0.3 0.3	63 36 27	0.1 0.1 0.0	181 100 81	0.2 0.2 0.1	984 562 422	0.9 1.0 0.7	1,959 1,069 890	1.7 1.9 1.5
MALAYSIA		T M F										
PHILIPPINES	1978	T M F	1,220 659 561	2.7 2.9 2.4	3,471 2,101 1,370	7.6 9.3 6.0	5,605 2,839 2,766	12.3 12.5 12.1	813 529 284	1.8 2.3 1.2	444 289	1.6 2.0 1.3
SINGAPORE	1978	T M F	31 25 6	1.3 2.1 0.5	4 1 3	2.5 — 5.2	2 — 2	— — —	8 3 5	— — —	115 52 63	17.7 14.7 21.0
THAILAND	1978	T M F	140 84 56	0.3 0.4 0.3	1,539 916 623	3.4 4.1 2.8	96 39 57	0.2 0.2 0.3	6 2 4	0.0 0.0 0.0	9,734 5,574 4,160	21.6 24.7 18.6

(Rate: Per 100,000 Population)

II (A45–A61)		A45		A46		A47		A48		A49		A50		A51	
Neoplasms		Malignant Neoplasm of Buccal Cavity and Pharynx		Malignant Neoplasm of Oesophagus		Malignant Neoplasm of Stomach		Malignant Neoplasm of Intestine, Except Rectum		Malignant Neoplasm of Rectum and Rectosigmoid Junction		Malignant Neoplasm of Larynx		Malignant Neoplasm of Trachea, Bronchus and Lung	
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
	1.6		23.9												
156,522	136.7	1,551	1.4	5,325	4.7	49,564	43.3	7,411	6.5	6,402	5.6	873	0.8	18,530	16.2
88,958	157.8	1,052	1.9	4,130	7.3	30,136	53.5	3,515	6.2	3,504	6.2	766	1.4	13,417	23.8
67,564	116.2	499	0.9	1,195	2.1	19,428	33.4	3,896	6.7	2,898	5.0	107	0.2	5,113	8.8
4,745	32.4	984	2.2	160	0.4	1,216	2.7	575	1.3	200	0.4	128	0.3	1,454	3.2
7,862	34.7	538	2.4	86	0.4	699	3.1	331	1.5	128	0.6	84	0.4	1,063	4.7
6,883	30.1	446	1.9	74	0.3	517	2.3	244	1.1	72	0.3	44	0.2	391	1.7
2,415	15.2	161	—	107	4.6	324	13.9	137	5.9	108	4.6	33	1.4	520	22.3
1,481	14.7	112	—	94	7.9	224	18.8	67	5.6	65	5.5	31	2.6	375	31.5
934	15.7	49	—	13	1.1	100	8.7	70	6.1	43	3.8	2	0.2	145	12.7
8,296	18.4	404	0.9	147	0.3	275	0.6	362	0.8	10	0.0	29	0.1	742	1.6
4,591	20.3	258	1.1	111	0.5	178	0.8	206	0.9	9	0.0	23	0.1	542	2.4
3,705	16.6	146	0.7	36	0.2	97	0.4	156	0.7	1	0.0	6	0.0	200	0.9

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (3)

	Year	Sex	A52	A53	A54	A55	A56
			Malignant Neoplasm of Bone N R	Malignant Neoplasm of Skin N R	Malignant Neoplasm of Breast N R	Malignant Neoplasm of Cervix Uteri N R	Other Malignant Neoplasm of Uterus N R
INDONESIA	1980	T M F					
JAPAN	1978	T M F	670 0.6 370 0.7 300 0.5	748 0.7 395 0.7 353 0.6	3,788 3.3 33 0.1 3,755 6.5	1,701 2.9	4,009 6.9
MALAYSIA		T M F					
PHILIPPINES	1978	T M F	491 1.1 300 1.3 191 0.8	130 0.3 74 0.3 56 0.2	909 2.0 45 0.2 864 4.0	207 0.9	652 2.8
SINGAPORE	1978	T M F	19 0.8 9 0.8 10 0.9	12 0.5 7 0.6 5 0.4	117 5.0 — — 117 10.2	69 6.0	14 1.2
THAILAND	1978	T M F	126 0.3 67 0.3 59 0.3	27 0.1 14 0.1 13 0.1	145 0.3 — — 145 0.6	136 0.6	423 1.9

(Rate: Per 100,000 Population)

A57	A58	A59	A60	A61	III (A62–A66)	A64	A65
Malignant Neoplasm of Prostate	Malignant Neoplasm of Other and Unspecified Sites	Leukaemia	Other Neoplasm of Lymphatic and Haematopoietic Tissue	Benign Neoplasm and Neoplasm of Unspecified Nature	Endocrine Nutritional and Metabolic Diseases	Diabetes Mellitus	Avitaminoses and Other Nutritional Deficiency
N R	N R	N R	N R	N R	N R	N R	N R
						2.5	
1,499 2.7	39,551 34.5 21,655 38.4 17,896 30.8	4,354 3.8 2,505 4.4 1,849 3.2	4,360 3.8 2,653 4.7 1,707 2.9	6,186 5.4 3,328 5.9 2,858 4.9	11,093 9.7 5,286 9.4 5,807 10.0	9,685 8.5 4,632 8.2 5,053 8.7	465 0.4 240 0.4 225 0.4
207 0.9	5,305 11.7 3,192 14.1 2,113 9.2	1,187 2.6 626 2.8 561 2.4	353 0.8 215 1.0 138 0.6	587 1.3 274 1.2 313 1.4	10,571 23.2 5,574 24.6 4,997 21.8	1,522 3.3 720 3.2 802 3.5	8,756 19.2 4,721 20.9 4,035 17.6
14 1.2	611 26.2 388 32.6 223 19.5	78 3.3 41 3.4 37 3.2	62 2.7 38 3.2 24 2.1	29 1.2 16 1.3 13 1.1	403 17.3 160 13.5 243 21.2	334 14.3 137 11.5 197 17.2	37 1.6 12 1.0 25 2.2
14 0.1	5,132 11.4 2,975 13.2 2,157 9.6	188 0.4 96 0.4 92 0.4	131 0.3 96 0.4 35 0.2	5 0.0 2 0.0 3 0.0	2,432 5.4 1,215 5.4 1,217 5.4	1,102 2.5 522 2.3 580 2.6	1,273 2.8 668 3.0 605 2.7

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (4)

	Year	Sex	Other Diseases N R		IV (A67 & A68)		A67		A68		V (A69-71)	
					Diseases of Blood and Blood-forming Organs		Anaemias		Other Diseases of Blood and Blood-forming Organs		Mental Disorders	
					N	R	N	R	N	R	N	R
INDONESIA	1980	T M F						0.8				
JAPAN	1978	T	943	0.8	2,118	1.8	1,445	1.3	673	0.6	2,719	2.4
		M	414	0.7	951	1.7	622	1.1	329	0.6	1,460	2.6
		F	529	0.9	1,167	2.0	823	1.4	344	0.6	1,253	2.2
MALAYSIA		T M F										
PHILIPPINES	1978	T	293	0.6	1,984	4.4	1,617	3.6	367	0.8	379	0.8
		M	133	0.6	1,016	4.5	822	3.6	194	0.9	255	1.1
		F	160	0.7	968	4.2	795	3.5	173	0.8	124	0.5
SINGAPORE	1978	T	32	1.4	45	1.9	38	1.6	7	0.3	16	0.7
		M	11	0.9	14	1.2	12	1.0	2	0.2	9	0.8
		F	21	1.8	31	2.7	26	2.3	5	0.4	7	0.6
THAILAND	1978	T	57	0.1	479	1.1	396	0.9	83	0.2	522	1.2
		M	35	0.1	252	1.1	207	0.9	45	0.2	443	2.0
		F	32	0.1	227	1.0	189	0.8	38	0.2	79	0.4

(Rate: Per 100,000 Population)

A69		A70		A71		VI (A72-A79)		A72		A73		A74		Other Diseases	
Psychoses		Neuroses Personality Disorders and Other Nonpsychotic Mental Disorders		Mental Retardation		Diseases of the Nervous System and Sense Organs		Meningitis		Multiple Sclerosis		Epilepsy			
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
								37.0							
1,742	1.5	917	0.8	60	0.1	6,082	5.3	895	0.8	78	0.1	682	0.6	4,427	3.9
679	1.2	752	1.3	35	0.1	3,358	6.0	527	0.9	31	0.1	381	0.7	2,419	4.3
1,063	1.8	165	0.3	25	0.0	2,724	4.7	368	0.6	47	0.1	301	0.5	2,008	3.5
153	0.3	219	0.5	7	0.02	5,170	11.4	2,977	6.5	3	0.01	728	1.6	1,462	3.2
73	0.3	175	0.8	7	0.03	2,824	12.5	1,623	7.2	1	0.004	396	1.8	804	3.6
80	0.3	44	0.2	—	—	2,346	10.2	1,354	5.9	2	0.009	332	1.4	658	2.9
10	0.4	1	0.0	5	0.2	114	4.9	39	1.7	2	0.1	8	0.3	65	2.8
4	0.3	1	0.1	4	0.3	55	4.6	22	1.8	—	—	3	0.3	30	2.5
6	0.5	—	—	1	0.1	59	5.2	17	1.5	2	0.2	5	0.4	35	3.1
28	0.1	494	1.1	—	—	4,745	10.6	864	1.9	2	0.0	211	0.5	3,668	8.2
20	0.1	423	1.9	—	—	2,834	12.5	508	2.2	2	0.0	131	0.6	2,193	9.7
8	0.1	71	0.3	—	—	1,911	8.5	356	1.6	—	—	80	0.4	1,475	6.6

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (5)

	Year	Sex	VII (A80–A88)	A80		A81		A82		A83	
			Diseases of the Circulatory System	Active Rheumatic Fever		Chronic Rheumatic Heart Disease		Hypertensive Diseases		Ischaemic Heart Disease	
			N R	N R	N R	N R	N R	N R			
INDONESIA	1980	T M F								55.2	
JAPAN	1978	T M F	299,845 261.8 151,651 269.1 148,194 254.9	269 0.2 114 0.2 155 0.3	3,619 3.2 1,435 2.5 2,184 3.8	18,779 16.4 8,062 14.3 10,717 18.4	45,620 39.8 25,187 44.7 20,433 35.1				
MALAYSIA		T M F									
PHILIPPINES	1978	T M F	44,549 97.8 24,750 109.4 19,799 86.5	89 0.2 49 0.2 40 0.2	2,323 5.1 1,074 4.7 1,249 5.5	8,828 19.3 4,955 21.9 3,873 16.9	12,426 27.3 7,346 32.5 5,080 22.2				
SINGAPORE	1978	T M F	3,983 170.6 2,182 183.4 1,801 157.3	2 0.1 2 0.2 — —	96 4.1 42 3.5 54 4.7	262 11.2 122 10.3 140 12.2	1,749 74.9 1,081 90.9 668 58.3				
THAILAND	1978	T M F	11,377 25.3 6,976 30.9 4,401 19.7	39 0.1 9 0.0 30 0.1	248 0.6 130 0.6 118 0.5	1,539 3.4 916 4.1 623 2.8	206 0.5 125 0.6 81 0.4				

(Rate: Per 100,000 Population)

A84		A85		A86		A87		A88		VIII (A89-A96)		A89		A90	
Other Forms of Heart Disease		Cerebrovascular Disease		Diseases of Arteries, Arterioles and Capillaries		Venous Thrombosis and Embolism		Other Diseases of Circulatory System		Diseases of the Respiratory System		Acute Respiratory Infections		Influenza	
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
														132.8	
57,547	50.3	167,452	146.2	5,584	4.9	247	0.2	728	0.6	49,452	43.2	3,711	3.2	707	0.6
28,021	49.7	85,308	151.4	2,947	5.2	130	0.2	447	0.8	28,454	50.5	1,729	3.1	368	0.7
29,526	50.8	82,144	141.3	2,637	4.5	117	0.2	281	0.5	20,998	36.1	1,982	3.4	339	0.6
9,604	21.1	7,675	16.9	2,254	5.0	382	0.8	968	2.1	59,868	131.5	3,447	7.6	1,898	4.2
4,998	22.1	4,506	19.9	1,088	4.8	188	0.8	546	2.4	32,378	143.1	1,895	8.4	992	4.4
4,606	20.1	3,169	13.8	1,166	5.1	194	0.8	422	1.8	27,490	120.0	1,552	6.8	906	4.0
411	17.6	1,382	59.2	58	2.5	10	0.4	13	0.6	1,724	73.9	7	0.3	19	0.8
232	19.5	654	55.0	33	2.8	6	0.5	10	0.8	1,010	84.9	5	0.4	11	0.9
179	15.6	728	63.6	25	2.2	4	0.3	3	0.3	714	62.4	2	0.2	8	0.7
5,307	11.8	3,790	8.4	15	0.0	5	0.0	228	0.5	23,330	51.9	14,992	33.3	871	1.9
3,226	14.3	2,419	10.7	9	0.0	3	0.0	139	0.6	13,332	59.0	8,339	36.9	454	2.0
2,081	9.3	1,371	6.1	6	0.0	2	0.0	89	0.4	9,998	44.7	6,653	29.7	417	1.9

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (6)

	Year	Sex	A91 & A92		A93		Other Diseases		IX (A97–A104)		A98	
			Pneumonia		Bronchitis, Emphysema and Asthma				Diseases of the Digestive System		Peptic Ulcer	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F	132.8		16.5							
JAPAN	1978	T M F	28,241	24.7	12,186	10.6	4,607	4.0	38,144	33.3	5,810	5.1
			15,653	27.8	7,623	13.5	3,081	5.5	23,116	41.0	3,641	6.5
			12,588	21.6	4,563	7.8	1,526	2.6	15,028	25.8	2,169	3.7
MALAYSIA		T M F										
PHILIPPINES	1978	T M F	45,667	100.3	5,929	13.0	2,927	6.4	12,221	26.8	4,419	9.7
			24,681	109.1	3,278	14.5	1,532	6.8	8,406	37.1	2,996	1.2
			20,986	91.6	2,651	11.6	1,395	6.1	3,815	16.7	1,423	0.7
SINGAPORE	1978	T M F	942	40.4	240	10.3	516	22.1	359	15.4	70	3.0
			473	39.8	149	12.5	372	31.3	231	19.4	41	3.4
			469	41.0	91	7.9	144	12.6	128	11.2	29	2.5
THAILAND	1978	T M F	5,308	11.8	1,240	2.8	919	2.8	10,705	23.8	1,233	2.7
			3,201	14.2	768	3.4	570	3.4	7,050	31.2	881	3.9
			2,107	9.4	472	2.1	349	2.1	3,655	16.3	352	1.6

(Rate: Per 100,000 Population)

A100		A101		A102		A103		Other Diseases	X (A105–A111)		A106		A107		
Appendicitis		Intestinal Obstruction and Hernia		Cirrhosis of Liver		Cholelithiasis and Cholecystitis			Diseases of Genito-urinary System		Other Nephritis and Nephrosis		Infections of Kidney		
N	R	N	R	N	R	N	R		N	R	N	R	N	R	
3.3		4.9		30.5								6.6			
262	0.2	2,477	2.2	16,077	14.0	2,691	2.3	10,827	9.5	11,189	9.8	5,499	4.8	1,468	1.3
127	0.2	1,204	2.1	11,678	20.7	1,080	1.9	5,386	9.6	5,564	9.9	2,754	4.9	435	0.8
135	0.2	1,273	2.2	4,399	7.6	1,611	2.8	5,441	9.4	5,625	9.7	2,745	4.7	1,033	1.8
427	0.9	1,748	3.8	1,942	4.3	129	0.3	3,556	7.8	5,137	11.3	3,295	7.2	493	1.1
273	1.2	1,128	5.0	1,479	6.5	66	0.3	2,464	10.9	2,933	13.0	1,871	8.3	294	1.3
154	0.7	620	2.7	463	2.0	63	0.3	1,092	4.8	2,204	9.6	1,424	6.2	199	0.9
5	0.2	21	0.9	118	5.1	13	0.6	132	5.7	381	16.3	296	12.7	16	0.7
3	0.3	11	0.9	84	7.1	9	0.8	83	7.0	181	15.2	138	11.6	6	0.5
2	0.2	10	0.9	34	3.0	4	0.3	49	4.3	200	17.5	158	13.8	10	0.9
181	0.4	291	0.6	1,684	3.7	195	0.4	7,121	15.8	2,531	5.6	1,792	4.0	11	0.0
102	0.5	189	0.8	1,198	5.3	126	0.6	4,554	20.2	1,355	6.0	1,002	4.4	8	0.0
79	0.4	102	0.5	486	2.2	69	0.3	2,567	11.5	1,176	5.3	790	3.5	3	0.0

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (7)

	Year	Sex	A109		Other Diseases		XI (A112–A118)		XII (A119 & A120)		XIII (A121–A125)	
			Hyperplasia of Prostate				Complications of Pregnancy Childbirth, etc.		Diseases of the Skin and Subcutaneous Tissue		Diseases of the Musculoskeletal System & Connective Tissue	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F						5.8				
JAPAN	1978	T M F	622	1.1	3,600 1,753 1,847	3.1 3.1 3.2			875 349 526	0.8 0.6 0.9	4,008 962 3,046	3.5 1.7 5.2
MALAYSIA		T M F										
PHILIPPINES	1978	T M F	51	0.2	1,298 717 581	2.9 3.2 2.5			920 935 385	2.0 2.4 1.7	644 390 254	1.4 1.7 1.1
SINGAPORE	1978	T M F	10	0.8	59 27 32	2.5 2.3 2.8			23 11 12	1.0 0.9 1.0	38 8 30	1.6 0.7 2.6
THAILAND	1978	T M F	6	0.0	722 339 383	1.6 1.5 1.7			145 88 57	0.3 0.4 0.3	50 26 24	0.1 0.1 0.1

(Rate: Per 100,000 Population)

A121		Other Diseases		XIV (A126—A130)		A126		A127		Other Diseases		XV (A131—A135)		XVI(A136&A137)	
Arthritis and Spondylitis				Congenital Anomalies		Spina Bifida		Congenital Anomalies of Heart				Certain Causes of Perinatal Mortality		Symptoms and Ill-defined Conditions	
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
								3.3						35.5	
2,571	2.2	1,437	1.3	5,551	4.8	83	0.1	3,109	2.7	2,359	2.1	6,629	5.8	34,364	30.0
593	1.1	369	0.7	3,010	5.3	44	0.1	1,651	2.9	1,315	2.3	3,886	6.9	15,598	24.1
1,978	3.4	1,068	1.8	2,541	4.4	39	0.1	1,458	2.5	1,044	1.8	2,746	4.7	20,766	35.7
317	0.7	327	0.7	2,866	6.3	18	0.04	1,587	3.5	1,261	2.8	16,764	36.8	32,076	70.5
192	0.8	198	0.9	1,591	7.0	10	0.04	900	4.0	681	3.0	9,680	42.8	16,558	73.2
125	0.5	129	0.6	1,275	5.6	8	0.03	687	3.0	580	2.5	7,084	30.9	15,518	67.8
10	0.4	28	1.2	184	7.9	4	0.2	98	4.2	82	3.5	239	10.2	573	24.5
3	0.3	5	0.4	122	10.3	2	0.2	65	5.5	55	4.6	151	12.7	266	22.4
7	0.6	23	2.0	62	5.4	2	0.2	33	2.9	27	2.4	88	7.7	307	26.8
12	0.0	38	0.1	840	1.9	—	—	461	1.0	379	0.8	3,663	8.1	109,407	243.3
6	0.0	20	0.1	380	1.7	—	—	147	0.7	233	1.0	2,348	10.4	57,051	252.5
6	0.0	18	0.1	460	2.1	—	—	314	1.4	146	0.7	1,315	5.9	52,356	233.9

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (8)

	Year	Sex	A136		A137		XVII (AE138-AE150)		AE138		AE139	
			Senility without Mention of Psychosis		Symptoms and Other Ill-defined Conditions		Accidents, Poisonings and Violence		Motor Vehicle Accidents		Other Transport Accidents	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F			38.5							
JAPAN	1978	T M F	27,976 9,907 18,069	24.4 17.6 31.1	6,388 3,691 2,697	5.6 6.5 4.0	53,086 36,338 16,748	46.4 64.5 28.8	12,030 9,118 2,912	10.5 16.2 5.0	1,656 1,360 296	1.4 2.4 0.5
MALAYSIA		T M F										
PHILIPPINES	1978	T M F	12,647 5,440 7,207	27.8 24.0 31.5	19,429 11,118 8,311	42.7 49.1 36.3	16,112 12,761 3,351	35.4 56.4 14.6	2,284 1,633 651	5.0 7.2 2.8	79 64 15	0.2 0.3 0.07
SINGAPORE	1978	T M F	496 215 281	21.2 18.1 24.5	77 51 26	3.3 4.3 2.3	1,057 790 267	45.3 66.4 23.3	299 244 55	12.8 20.5 4.8	34 27 7	1.5 2.3 0.6
THAILAND	1978	T M F	45,943 21,573 24,370	102.2 95.5 108.9	63,464 35,478 27,986	141.1 157.0 125.0	27,313 20,669 6,664	60.7 91.5 29.7	6,421 4,793 1,628	14.3 21.2 7.3	204 155 49	0.5 6.7 0.2

(Rate: Per 100,000 Population)

AE140		AE141		AE142		AE143		AE144		AE145		AE146		AE147	
Accidental Poisoning		Accidental Falls		Accidents Caused by Fires		Accidental Drowning and Submersion		Accident Caused by Firearm Missiles		Accidents Mainly of Industrial Type		All Other Accidents		Suicide and Self Inflicted Injury	
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
754	0.7	4,427	3.9	1,564	1.4	3,803	3.3	14	0.0	2,338	2.0	3,431	3.0	20,199	17.6
474	0.8	3,611	5.3	920	1.6	2,808	5.0	14	0.0	2,009	3.6	2,335	4.1	12,409	22.0
280	0.5	1,416	2.4	644	1.1	995	1.7	—	—	329	0.6	1,096	1.9	7,790	13.4
216	0.5	748	1.6	432	0.9	2,687	5.9	—	—	304	0.7	1,241	2.7	415	0.9
115	0.5	554	2.4	247	1.1	1,858	8.2	—	—	252	1.1	934	4.1	231	1.0
101	0.4	194	0.8	185	0.8	829	3.6	—	—	52	0.2	307	1.3	184	0.8
10	0.4	36	1.5	7	0.3	30	1.3	1	0.0	107	4.6	31	1.3	266	11.4
9	0.8	28	2.4	2	0.2	22	1.8	1	0.1	99	8.3	22	1.8	155	13.0
1	0.1	8	0.7	5	0.4	8	0.7	—	—	8	0.7	9	0.8	111	9.7
283	0.6	308	0.7	282	0.6	2,477	5.5	411	0.9	799	1.8	4,462	9.9	2,458	5.5
171	0.8	221	1.0	156	0.7	1,569	6.9	359	1.6	626	2.8	3,237	14.3	1,293	5.7
112	0.5	87	0.4	126	0.6	908	4.1	52	0.2	173	0.8	1,225	5.5	1,165	5.2

4-1. Deaths and Death Rates by Cause (ICD-8 "A") (9)

	Year	Sex	AE148		AE149		AE150		Another and Unspecified Effects of External Causes	
			Homicide & Injury Purposely Inflicted by Other Persons; Legal Intervention		Injury Undetermined whether Accidentally or Purposely Inflicted		Injury Resulting from Operations of War			
			N	R	N	R	N	R	N	R
INDONESIA	1980	T M F						0.0 0.0 —		
JAPAN	1978	T M F	1,306 754 552	1.1 1.3 0.9	1,557 1,119 438	1.4 2.0 0.8	7 7 —	0.0 0.0 —		
MALAYSIA		T M F								
PHILIPPINES	1978	T M F	452 412 40	1.0 1.8 0.2	6,593 5,834 759	14.5 25.8 3.3	661 627 34	1.5 2.8 0.1	4,783 3,479 1,304	10.5 15.4 5.7
SINGAPORE	1978	T M F	39 32 7	1.7 2.7 0.6	197 147 48	8.4 12.5 4.2	— — —	— — —		
THAILAND	1978	T M F	9,202 8,084 1,118	20.5 35.8 5.0	6 5 1	0.0 0.0 0.0	— — —	— — —		

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (1)

(Rate: Per 100,000 Population)

	Year	Sex	All Causes		01-07		011		010, 019, 012-016		020-021	
					Infectious and Parasitic Diseases		Typhoid Fever		Other Intestinal Infectious Diseases		Tuberculosis of Respiratory System	
			Number	Rate	N	R	N	R	N	R	N	R
INDONESIA ⁽¹⁾	1980	T M F										
JAPAN ⁽²⁾	1980	T	722,801	618.2	11,938	10.2	1	0.0	1,599	1.4	6,144	5.3
		M	390,644	679.5	7,527	13.1	1	0.0	679	1.2	4,555	7.9
		F	332,157	558.9	4,411	7.4	—	—	920	1.5	1,589	2.7
MALAYSIA		T										
		M										
		F										
PHILIPPINES		T										
		M										
		F										
SINGAPORE ⁽³⁾	1981	T	12,855	526.1	432	17.7	2	0.1	52	2.1	198	8.1
		M	7,370	591.4	299	24.0	2	0.2	28	2.2	158	12.7
		F	5,485	458.2	133	11.1	—	—	24	2.0	40	3.3
THAILAND ⁽⁴⁾	1982	T	247,402	510.2	18,970	39.1	194	0.4	3,063	6.3	5,771	11.9
		M	144,066	591.1	11,508	47.2	116	0.5	1,729	7.1	3,850	15.8
		F	103,336	428.5	7,462	30.9	78	0.3	1,334	5.5	1,921	8.0

Source: (1) Hospital Data, 1981, Directorate Serecad Medical Care, WOH

(2) Vital Statistics, Japan, 1980

(3) Ministry of Health, Singapore (official data)

(4) Ministry of Public Health, Thailand (official data)

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (2)

	Year	Sex	022-025, 029		034		036		037		038	
			Tuberculosis, Other Forms		Whooping Cough		Meingococcal Infection		Tetanus		Septicaemia	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F										
JAPAN	1980	T	295	0.3	18	0.0	7	0.0	45	0.0	1,357	1.2
		M	160	0.3	8	0.0	5	0.0	28	0.0	663	1.2
		F	135	0.2	10	0.0	2	0.0	17	0.0	694	1.2
MALAYSIA		T M F										
PHILIPPINES		T M F										
SINGAPORE	1981	T	23	0.9	—	—	1	0.0	—	—	84	3.4
		M	15	1.2	—	—	1	0.1	—	—	47	3.8
		F	8	0.7	—	—	—	—	—	—	37	3.1
THAILAND	1982	T	49	0.1	18	0.0	1	0.0	542	1.1	2,571	5.3
		M	30	0.1	5	0.0	—	—	326	1.3	1,418	5.8
		F	19	0.1	13	0.0	1	0.0	216	0.9	1,153	4.8

(Rate: Per 100,000 Population)

030-033,035,039		042		040,041,043-049		052		050,051,053,054,059		06		07		08-14	
Other Bacterial Diseases		Measles		Other Viral Diseases		Malaria		Other Arthropod-borne Diseases		Venereal Diseases		Other Infectious and Parasitic Diseases		Malignant Neoplasms	
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
		0.04 ^(a)				0.25						-	-	1.14	
107	0.1	50	0.0	1,404	1.2	6	0.0	2	0.0	141	0.1	762	0.7	161,764	138.4
66	0.1	22	0.0	793	1.4	5	0.0	1	0.0	82	0.1	459	0.8	93,501	162.6
41	0.1	28	0.0	611	1.0	1	0.0	1	0.0	59	0.1	303	0.5	68,263	114.9
8	0.3	1	0.0	39	1.6	1	0.0	-	-	5	0.2	18	0.7	2,616	107.1
7	0.6	-	-	21	1.7	1	0.1	-	-	4	0.3	15	1.2	1,529	122.7
1	0.1	1	0.1	18	1.5	-	-	-	-	1	0.1	3	0.3	1,087	90.8
412	0.8	94	0.2	1,328	2.7	3,779	7.7	-	-	13	0.0	1,135	2.3	12,653	26.1
240	1.0	49	0.2	746	3.1	2,340	9.6	-	-	8	0.0	651	2.7	7,122	29.1
172	0.7	45	0.2	582	2.4	1,439	6.0	-	-	5	0.0	484	2.0	5,531	22.9

Note: (a) Rates were calculated by Sampling Survey

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (3)

	Year	Sex	08 Malignant Neoplasm of Lip, Oral Cavity and Pharynx N R		090 Malignant Neoplasm of Oesophagus N R		091 Malignant Neoplasm of Stomach N R		093 Malignant Neoplasm of Colon N R		094 Malignant Neoplasm of Rectum, Rectosigmoid Junction and Anus N R	
INDONESIA	1980	T M F										
JAPAN	1980	T M F	1,825 1,233 592	1.6 2.1 1.0	5,733 4,490 1,243	4.9 7.8 2.1	50,443 30,845 19,598	43.1 53.7 33.0	7,932 3,842 4,090	6.8 6.7 6.9	6,917 3,933 2,984	5.9 6.8 5.0
MALAYSIA		T M F										
PHILIPPINES		T M F										
SINGAPORE	1981	T M F	184 138 46	7.5 11.1 3.8	104 80 24	4.3 6.4 2.0	309 191 118	12.6 15.3 9.9	187 84 103	7.7 6.7 8.6	92 39 53	3.8 3.1 4.4
THAILAND	1982	T M F	418 275 143	0.9 1.1 0.6	231 172 59	0.5 0.7 0.2	378 243 135	0.8 1.0 0.6	408 232 176	0.8 1.0 0.7	21 10 11	0.0 0.0 0.0

(Rate: Per 100,000 Population)

095	100	101	113	120	122	124	126
Malignant Neoplasm of Liver, Specified as Primary	Malignant Neoplasm of Larynx	Malignant Neoplasm of Trachea, Bronchus and Lung	Malignant Neoplasm of Female Breast	Malignant Neoplasm of Cervix Uteri	Malignant Neoplasm of Uterus, Other and Unspec	Malignant Neoplasm of Prostate	Malignant Neoplasm of Bladder
N R	N R	N R	N R	N R	N R	N R	N R
8,758 7.5 6,361 11.0 2,397 4.0	866 0.7 736 1.3 130 0.2	21,294 18.2 15,438 26.9 5,856 9.9	. . . . 4,141 7.0	. . . . 1,745 2.9	. . . . 3,650 6.1	1,736 3.0	2,361 2.0 1,606 2.8 755 1.3
39 1.6 32 2.6 7 0.6	33 1.4 31 2.5 2 0.2	626 25.6 459 36.8 167 14.0	. . . . 144 12.0	. . . . 85 7.1	. . . . 19 1.6	32 2.6	35 1.4 25 2.0 10 0.8
— — — — — —	43 0.1 38 0.2 5 0.0	1,239 2.6 903 3.7 336 1.4	. . . . 205 0.9	. . . . 174 0.7	. . . . 430 1.8	. 28 0.1	78 0.2 62 0.3 16 0.1

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (4)

	Year	Sex	Rest		141		140, 149		15-17		181	
			Malignant Neoplasm of Other Sites		Leukaemia		Other Malignant Neoplasms of Lymphatic and Haemopoietic		Benign Neoplasm, Other and Unspecified Neoplasm		Diabetes Mellitus	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F									0.39	
JAPAN	1980	T M F	34,904 17,718 17,186	29.9 30.8 28.9	4,567 2,624 1,943	3.9 4.6 3.3	4,892 2,939 1,953	4.2 5.1 3.3	6,082 3,372 2,710	5.2 5.9 4.6	8,504 4,055 4,449	7.3 7.1 7.5
MALAYSIA		T M F										
PHILIPPINES		T M F										
SINGAPORE	1981	T M F	589 351 238	24.1 28.2 19.9	72 31 41	2.9 2.5 3.4	66 36 30	2.7 2.9 2.5	56 30 26	2.3 2.4 2.2	368 148 220	15.1 11.9 18.4
THAILAND	1982	T M F	8,498 4,875 3,623	17.5 20.0 15.0	336 185 151	0.7 0.9 0.6	166 99 67	0.3 0.4 0.3	— — —	— — —	1,604 769 835	3.3 3.2 3.5

(Rate: Per 100,000 Population)

180, 182, 183, 189	191	192	190, 193	200	209	210	220
Other Endocrine and Metabolic Diseases	Nutritional Marasmus	Other Protein- calorie Malnutrition	Other Nutritional Deficiencies	Anaemias	Other Diseases of Blood and Blood- forming Organs	Mental Disorders	Meningitis
N R	N R	N R	N R	N R	N R	N R	N R
		0.21	0.21			0.14	
1,235 1.1 546 0.9 689 1.2	1 0.0 1 0.0 — —	268 0.2 141 0.2 127 0.2	164 0.1 88 0.2 76 0.1	1,521 1.3 707 1.2 814 1.4	793 0.7 408 0.7 385 0.6	3,017 2.6 1,522 2.6 1,495 2.5	671 0.6 391 0.7 280 0.5
21 0.9 11 0.9 10 0.8	1 0.0 — — 1 0.1	13 0.5 3 0.2 10 0.8	1 0.0 — — 1 0.1	28 1.1 12 1.0 16 1.3	14 0.6 9 0.7 5 0.4	22 0.9 13 1.0 9 0.8	27 1.1 19 1.5 8 0.7
123 0.3 44 0.2 79 0.3	171 0.4 63 0.3 108 0.4	— — — — — —	625 1.3 309 1.3 316 1.3	222 0.5 111 0.5 111 0.5	107 0.2 56 0.2 51 0.2	1 0.0 1 0.0 — —	618 1.3 356 1.5 262 1.1

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (5)

	Year	Sex	223		225		221, 222, 224, 229, 23, 24		25-30		250	
			Multiple Sclerosis		Epilepsy		Other Diseases of Nervous System and Sense Organs		Diseases of the Circulatory System		Acute Rheumatic Fever	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F										
JAPAN	1980	T M F	77 33 44	0.1 0.1 0.1	567 326 241	0.5 0.6 0.4	4,654 2,557 2,097	4.0 4.4 3.5	310,333 156,824 153,509	265.4 272.8 258.3	155 58 97	0.1 0.1 0.2
MALAYSIA		T M F										
PHILIPPINES		T M F										
SINGAPORE	1981	T M F	1 1 —	0.0 0.1 —	7 5 2	0.3 0.4 0.2	79 41 38	3.2 3.3 3.2	4,413 2,420 1,993	180.6 194.2 166.5	1 1 —	0.0 0.1 —
THAILAND	1982	T M F	— — —	— — —	153 93 60	0.3 0.4 0.2	4,811 2,062 1,849	9.9 12.2 7.7	24,846 15,096 9,750	51.2 61.9 40.4	8 4 4	0.0 0.0 0.0

(Rate: Per 100,000 Population)

251		26		270		279		28		29		300		301, 302	
Chronic Rheumatic Heart Disease		Hypertensive Disease		Acute Myocardial Infarction		Other Ischaemic Heart Diseases		Diseases of Pulmonary Circulation and Other Forms of Heart Disease		Cerebrovascular Disease		Atherosclerosis		Embolism, Thrombosis and Other Dis. of Arteries, Arterioles & Capillaries	
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
												4.14			
1,716	1.5	15,911	13.6	29,393	25.1	18,954	16.2	73,442	62.8	162,317	138.8	5,161	4.4	2,427	2.1
582	1.0	6,654	11.6	17,511	30.5	9,376	16.3	36,634	63.7	81,650	142.0	2,258	3.9	1,580	2.7
1,134	1.9	9,257	15.6	11,882	20.0	9,578	16.1	36,808	61.9	80,667	135.7	2,903	4.9	847	1.4
79	3.2	344	14.1	1,687	69.0	369	15.1	413	16.9	1,438	58.9	15	0.6	52	2.1
34	2.7	143	11.5	1,131	90.7	197	15.8	199	16.0	661	53.0	9	0.7	34	2.7
45	3.8	201	16.8	556	46.4	172	14.4	214	17.9	777	64.9	6	0.5	18	1.5
241	0.5	1,798	3.7	506	1.0	216	0.4	15,592	32.2	5,578	11.5	1	0.0	44	0.1
136	0.6	1,054	4.3	301	1.2	140	0.6	9,369	38.4	3,535	14.5	—	—	31	0.1
105	0.4	744	3.1	205	0.9	76	0.3	6,223	25.8	2,043	8.5	1	0.0	13	0.1

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (6)

	Year	Sex	303		304, 305, 309		310-312		320		321	
			Phlebitis, Thrombophlebitis, Venous Embolism and Thrombosis		Other Diseases of the Circulatory System		Acute Upper Respiratory Infection		Acute Bronchitis and Bronchiolitis		Pneumonia	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F									2.34	
JAPAN	1980	T M F	113 58 55	0.1 0.1 0.1	744 463 281	0.6 0.8 0.5	1,757 704 1,053	1.5 1.2 1.8	2,133 1,032 1,101	1.8 1.8 1.9	33,051 18,633 14,418	28.3 32.4 24.3
MALAYSIA		T M F										
PHILIPPINES		T M F										
SINGAPORE	1981	T M F	1 1 —	0.0 0.1 —	14 10 4	0.6 0.8 0.3	4 1 3	0.2 0.1 0.3	3 — 3	0.1 — 0.3	1,283 677 606	52.5 54.3 50.6
THAILAND	1982	T M F	1 1 —	0.0 0.0 —	861 525 336	1.8 2.2 1.4	1,715 932 783	3.5 3.8 3.2	2 2 —	0.0 0.0 —	4,638 2,770 1,868	9.6 11.4 7.7

(Rate: Per 100,000 Population)

322		323		313-315, 324-327, 329		341		342		343, 344		347		33, 340, 345, 346, 348, 349	
Influenza		Bronchitis, Chronic and Unspecified, Emphysema and Asthma		Other Diseases of Respiratory System		Ulcer of Stomach and Duodenum		Appendicitis		Hernia of Abdominal Cavity and Intestinal Obstruction		Chronic Liver Disease and Cirrhosis		Other Diseases of the Digestive System	
N	R	N	R	N	R	N	R	N	R	N	R	N	R	N	R
		0.30				0.18		0.07		0.12					
718	0.6	12,712	10.9	6,473	5.5	5,530	4.7	220	0.2	2,649	2.3	16,490	14.1	14,142	12.1
349	0.6	8,022	14.0	4,249	7.4	3,349	5.8	122	0.2	1,278	2.2	11,941	20.8	7,180	12.5
369	0.6	4,690	7.9	2,224	3.7	2,181	3.7	98	0.2	1,371	2.3	4,549	7.7	6,962	11.7
29	1.2	203	8.3	672	27.5	65	2.7	7	0.3	23	0.9	140	5.7	150	6.1
9	0.7	123	9.9	482	38.7	37	3.0	4	0.3	11	0.9	115	9.2	85	6.8
20	1.7	80	6.7	190	15.9	28	2.3	3	0.3	12	1.0	25	2.1	65	5.4
514	1.1	862	1.8	2,805	5.8	844	1.7	145	0.3	218	0.4	3,993	8.2	6,523	13.5
274	1.1	544	2.2	1,740	7.1	593	2.4	81	0.3	131	0.5	2,837	11.6	4,172	17.1
240	1.0	318	1.3	1,065	4.4	251	1.0	64	0.3	87	0.4	1,156	4.8	2,351	9.7

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (7)

	Year	Sex	350		351		360		37,352,353,361- 363,369	38	
			Nephritis, Nephrotic Syndrome and Nephrosis		Infections of Kidney		Hyperplasia of Prostate		Other Diseases of the Genitourinary System	Abortion	
			N	R	N	R	N	R	N	R	R
INDONESIA	1980	T M F	1.04				0.05 . .				. . 0.11
JAPAN	1980	T M F	10,180 5,066 5,114	8.7 8.8 8.6	1,354 454 900	1.2 0.8 1.5	497 . .	0.9 . .	1,166 507 659	1.0 0.9 1.1	. . 40 0.1
MALAYSIA		T M F									
PHILIPPINES		T M F									
SINGAPORE	1981	T M F	288 146 142	11.8 11.7 11.9	13 3 10	0.5 0.2 0.8	3 . .	0.2 . .	62 20 42	2.5 1.6 3.5	. . 2 0.2
THAILAND	1982	T M F	2,698 1,561 1,137	5.6 6.4 4.7	10 6 4	0.0 0.0 0.0	3 . .	0.0 . .	498 291 207	1.0 1.2 0.9	. . 56 0.2

(Rate: Per 100,000 Population)

390	391	394	392, 393, 399	40, 41	42	43	440
Haemorrhage of Pregnancy and Childbirth N R	Toxaemia of Pregnancy N R	Complications of the Puerperium N R	Other Direct Obstetric Causes N R	All Other Indirect Obstetric Causes N R	Diseases of Skin and Subcutaneous Tissue N R	Diseases of the Musculoskeletal System and Connective Tissue N R	Spina Bifida and Hydrocephalus N R
. .	. . 0.53	. .					
. . . . 99 0.2	. . . . 72 0.1	. . . . 45 0.1	. . . . 36 0.1	. . . . 31 0.1	691 0.6 291 0.5 400 0.7	4,094 3.5 1,004 1.7 3,090 5.2	214 0.2 116 0.2 98 0.2
. . . . — —	. . . . — —	. . . . — —	. . . . — —	. . . . — —	55 2.3 24 1.9 31 2.6	47 1.9 5 0.4 42 3.5	4 0.2 2 0.2 2 0.2
. . . . 221 0.9	. . . . 3 0.0	. . . . 12 0.0	. . . . 441 1.8	. . . . 16 0.1	157 0.3 93 0.4 64 0.3	93 0.2 58 0.2 35 0.1	2 0.0 1 0.0 1 0.0

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (8)

	Year	Sex	442	441, 443-447, 449		453		450-452, 454, 455, 459	465	
			Congenital Anomalies of Heart and Circulatory System N R	Other Congenital Anomalies N R		Birth Trauma N R		Other Conditions Originating in the Perinatal Period N R	Senility without Mention of Psychosis N R	
INDONESIA	1980	T M F								
JAPAN	1980	T M F	3,061 2.6 1,649 2.9 1,412 2.4	1,602 1.4 830 1.4 772 1.3		490 0.4 297 0.5 193 0.3		5,311 4.5 3,099 5.4 2,212 3.7	32,154 27.5 11,244 19.6 20,910 35.2	
MALAYSIA		T M F								
PHILIPPINES		T M F								
SINGAPORE	1981	T M F	109 4.5 63 5.1 46 3.8	64 2.6 29 2.3 35 2.9		14 0.6 7 0.6 7 0.6		193 7.9 113 9.1 80 6.7	237 9.7 95 7.6 142 11.9	
THAILAND	1982	T M F	193 0.4 104 0.4 89 0.4	386 0.8 223 0.9 163 0.7		— — — — — —		2,991 6.2 1,715 7.0 1,276 5.3	55,631 114.7 26,581 109.1 29,050 120.5	

(Rate: Per 100,000 Population)

460-464, 466, 467, 469	E47-E53		E471		E470, E472-E474, E479		E48		E50		E51		E521	
Signs, Symptoms and Other Ill-defined Conditions N R	Accidents and Adverse Effects N R		Motor Vehicle Traffic Accidents N R		Other Transport Accidents N R		Accidental Poisoning N R		Accidental Falls N R		Accidents Caused by Fire and Flames N R		Accidental Drowning and Submersion N R	
1,373 1.2 799 1.4 574 1.0	29,217 25.0 21,153 36.8 8,064 13.6		11,555 9.9 8,694 15.1 2,861 4.8		1,747 1.5 1,417 2.5 330 0.6		776 0.7 499 0.9 277 0.5		4,420 3.8 2,909 5.1 1,511 2.5		1,464 1.3 868 1.5 596 1.0		3,437 2.9 2,454 4.3 983 1.7	
151 6.2 102 8.2 49 4.1	435 17.8 343 27.5 92 7.7		281 11.5 222 17.8 59 4.9		15 0.6 14 1.1 1 0.1		2 0.1 1 0.1 1 0.1		41 1.7 25 2.0 16 1.3		5 0.2 3 0.2 2 0.2		- - - - - -	
66,681 137.5 37,600 154.3 29,081 120.6	16,234 33.5 12,036 49.4 4,198 17.4		6,355 13.1 4,840 19.9 1,515 6.3		250 0.5 200 0.8 50 0.2		348 0.7 174 0.7 174 0.7		372 0.8 292 1.2 80 0.3		296 0.6 180 0.7 116 0.5		2,477 5.1 1,650 6.8 827 3.4	

4-2. Deaths and Death Rates by Cause (ICD-9 "A") (9)

	Year	Sex	E523		E524		E49, E520, E522, E529		E53		E54	
			Accidents Caused by Machinery and by Cutting and Piercing Instruments		Accidents Caused by Firearm Missile		All Other Accidents, Including Late Effects		Drugs, Medicaments Causing Adverse Effects in Therapeutic Use		Suicide and Self-inflicted Injury	
			N	R	N	R	N	R	N	R	N	R
INDONESIA	1980	T M F										
JAPAN	1980	T M F	901 805 96	0.8 1.4 0.2	14 14 —	0.0 0.0 —	4,877 3,476 1,401	4.2 6.0 2.4	26 17 9	0.0 0.0 0.0	20,542 12,769 7,773	17.6 22.2 13.1
MALAYSIA		T M F										
PHILIPPINES		T M F										
SINGAPORE	1981	T M F	— — —	— — —	— — —	— — —	91 78 13	3.7 6.3 1.1	— — —	— — —	191 107 84	7.8 8.6 7.0
THAILAND	1982	T M F	16 15 1	0.0 0.1 0.0	215 189 26	0.4 0.8 0.1	5,095 4,496 1,409	12.2 18.4 5.8	— — —	— — —	3,237 1,710 1,527	6.7 7.0 6.3

(Rate: Per 100,000 Population)

E55		E56		
Homicide and Injury Purposely Inflicted by Other Persons		Other Violence		
N	R	N	R	
1,113	1.0	1,955	1.7	
656	1.1	1,355	2.4	
457	0.8	600	1.0	
44	1.8	265	10.8	
34	2.7	190	15.2	
10	0.8	75	6.3	
10,661	22.0	15	0.0	
9,505	39.0	13	0.0	
1,156	4.8	2	0.0	

5-1. Number of Cases of Infections

	Year	Sex	Cholera	Typhoid Fever and Paratyphoid Fever	Typhoid Fever	Paratyphoid Fever	Other Salmonella Infection	Amoebiasis and Bacillary Dysentery
INDONESIA ⁽¹⁾	1980	T	29,288					
JAPAN ⁽²⁾	1981	T M F	19 13 6	477 249 228	292 149 143	185 100 85	3,781	1,021 577 444
MALAYSIA								
Peninsular Malaysia ⁽³⁾	1978	T	1,536	1,512	1,474	38		
Sabah ⁽⁴⁾	1977	T M F	204 111 93	64	62	2	24	242
Sarawak ⁽³⁾	1978	T	1	396	368	28		123
PHILIPPINES ⁽⁵⁾	1978	T M F	1,385 717 668	3,542 2,044 1,498				27,653 15,347 12,306
SINGAPORE ⁽⁶⁾	1982	T	31	174	164	10		
THAILAND ⁽⁷⁾	1979 1980 1981 1982	T T T T	1,498 4,288 39 845	3,111 3,809 4,419 5,186	3,060 3,748 4,351 5,125	51 61 68 61		8,821 7,973 11,923 14,748

Source: (1) Directorate General of CDC, MOH
 (2) Statistics of Communicable Disease and Food Poisoning, Japan, 1981
 (3) World Health Statistics Annual, 1980-1981, WHO
 (4) World Health Statistics Annual, 1979, WHO
 (5) Philippine Health Statistics, Ministry of Health, MLA, 1978
 (6) Ministry of Environment
 (7) Weekly of Epidemiological Surveillance Record, Thailand

Note: (a) The increase of malarial cases is subjected to the increasing number of epidemiological surveillance workers in the field since 1980, which resulted in effective case finding

Amoebiasis	Bacillary Dysentery	Food Poisoning (Bacterial)	Tuber- culosis of All Forms	Leprosy Incidence	Diphtheria	Chickenpox	Infectious Hepatitis	Rabies	Malaria: Incidence	Influenza (Grippe)
				7,583				60		
52 37 15	969 540 429	24,466	68,318	44	47 30 17				41	19,910
105	137	598	4,298	205	71	1,634	1,578	2	6,194	32,265
		99	2,233	10	8	705	207	—	45,313	
				8	6		442		219	
		321 158 163	118,587 60,005 58,582	489 270 219	1,389 771 618	1,261 672 589	7,172 4,160 3,012	275 171 104	35,353 19,586 15,767	222,064 109,700 112,364
		936	2,179	61	6	1,283	426		282	
2,028	6,793	12,741	13,279	340	2,009	1,379	12,621	232	75,618	32,239
1,740	6,233	18,942	14,980	447	1,918	3,583	12,704	248	123,495 ^(a)	50,149
2,315	9,608	21,729	14,420	591	794	3,307	9,485	212	163,428	55,128
2,729	12,019	27,580	14,974	515	1,125	4,247	9,103	204	156,623	63,800

5-2. Number of Cases of Venereal Diseases

	Year	Sex	Syphilis & Sequelae: Incidence	Congenital Syphilis	Early Syphilis, Symptomatic	Early Syphilis, Latent	Cardio-vascular Syphilis	Syphilis of Central Nervous System	Late Syphilis, Latent	Other Forms Late Syphilis, with Sympt.	Other Syphilis & Not Specified	Gonococcal Infections: Incidence	Other Venereal Disease
INDONESIA ⁽¹⁾	1980	T	505									21,891	
JAPAN	1981	T M F	1,627 954 673	153 62 91	141 117 24	163 110 53			611 370 241	199 114 85	208 91 117	8,777 7,685 1,092	86 76 10
MALAYSIA Peninsular ⁽³⁾ Malaysia	1978	T	461									780	13
Sabah ⁽⁴⁾		T									15	609	
Sarawak ⁽³⁾		T		5	2							51	
PHILIPPINES ⁽⁵⁾	1978	T M F	60 36 24									8,423 3,117 5,306	
SINGAPORE ⁽⁶⁾	1982	T	987	5	285	150	9	8	530			7,051	1,967
THAILAND ⁽⁴⁾	1977	T	11,345									133,972	136,342

Source: (1) Directorate General of CDC, MOH

(2) Statistics of Communicable Disease, Japan, 1981

(3) World Health Statistics Annual, 1980-1981, WHO

(4) World Health Statistics Annual, 1979, WHO

(5) Philippine Health Statistics, Ministry of Health, MLA, 1978

(6) Ministry of Health

6-1. Seasonal Distribution of Cholera (Cases)

	Year	Sex	Total	Months or Four-Week Periods												
				Jan. I	Feb. II	Mar. III	Apr. IV	May V	Jun. VI	VII	Jul. VIII	Aug. IX	Sept. X	Oct. XI	Nov. XII	Dec. XIII
INDONESIA	1979	T	28,738	1,628	2,401	2,273	3,937	4,223	3,166	2,688	2,122	2,398	1,206	754	1,256	676
JAPAN ⁽¹⁾	1981	T	19	1	1	3	—	3	1	..	—	3	6	1	—	—
MALAYSIA																
Peninsular Malaysia	1978	T	1,536	—	1	144	277	372	187	..	146	171	173	49	8	8
Sabah ⁽²⁾	1977	T	204	27	31	84	21	16	—	..	—	—	9	5	6	5
Sarawak	1978	T	1	—	—	—	—	—	—	..	—	—	—	1	—	—
PHILIPPINES ⁽³⁾	1978	T	1,385	72	77	96	85	100	93	131	134	130	143	125	119	89
SINGAPORE ⁽⁴⁾	1982	T	31	—	—	—	1	—	—	..	—	1	1	2	23	3
THAILAND ⁽⁵⁾	1981	T	39	—	—	—	1	2	23	..	5	3	—	—	2	3
	1982	T	645	—	8	54	56	89	72	..	65	95	70	30	60	46

Source: World Health Statistics Annual, 1980–1981, WHO

(1) Statistics of Communicable Disease, Japan, 1981

(2) World Health Statistics Annual, 1979, WHO

(3) Philippine Health Statistics, Ministry of Health, MLA, 1978

(4) Ministry of Environment

(5) Weekly Epidemiological Surveillance Record, Thailand

6-2. Seasonal Distribution of Typhoid Fever (Cases)

	Year	Sex	Total	Months or Four-Week Periods												
				Jan. I	Feb. II	Mar. III	Apr. IV	May V	Jun. VI	VII	Jul. VIII	Aug. IX	Sept. X	Oct. XI	Nov. XII	Dec. XIII
INDONESIA	1979	T	22,953	1,695	1,773	1,871	1,655	2,068	1,872	• •	2,115	1,997	2,077	2,278	1,923	1,551
JAPAN ⁽¹⁾	1981	T	292	18	24	30	33	45	26	• •	28	28	14	17	17	12
MALAYSIA Peninsular Malaysia	1978	T	1,474	118	105	154	119	160	165	• •	114	136	125	113	84	84
Sabah ⁽²⁾	1977	T	62	3	10	11	7	2	4	• •	7	3	—	6	7	2
Sarawak	1978	T	368	38	34	22	21	29	28	• •	46	38	23	33	31	25
PHILIPPINES ^{(3)(a)}	1978	T	3,542	248	262	246	228	224	340	271	310	292	264	276	288	293
SINGAPORE ⁽⁴⁾	1982	T	164	13	21	21	11	17	16	• •	27	8	7	7	9	7
THAILAND ⁽⁵⁾	1981	T	4,351	258	275	395	219	306	487	• •	414	460	472	412	393	260
	1982	T	5,125	326	332	441	308	405	489	• •	499	518	509	563	474	261

Source: World Health Statistics Annual, 1980–1981, WHO

(1) Statistics of Communicable Disease, Japan, 1981

(2) World Health Statistics Annual, 1979, WHO

(3) Philippine Health Statistics, Ministry of Health, MLA, 1978

(4) Ministry of Environment

(5) Weekly Epidemiological Surveillance Record, Thailand

Note: (a) Number of Cases by Typhoid Fever and Paratyphoid Fever

6-3. Seasonal Distribution of Paratyphoid Fever (Cases)

	Year	Sex	Total	Months or Four-Week Periods												
				Jan. I	Feb. II	Mar. III	Apr. IV	May V	Jun. VI	VII	Jul. VIII	Aug. IX	Sept. X	Oct. XI	Nov. XII	Dec. XIII
INDONESIA																
JAPAN ⁽¹⁾	1981	T	185	6	2	3	8	18	16	..	44	47	18	11	6	6
MALAYSIA																
Peninsular Malaysia	1978	T	38	3	3	5	3	2	6	..	5	2	5	—	2	2
Sabah ⁽²⁾	1977	T	2	—	2	—	—	—	—	..	—	—	—	—	—	—
Sarawak	1978	T	28	1	2	2	—	1	—	..	—	2	4	4	5	7
PHILIPPINES ^{(3)(a)}	1978	T	3,542	248	262	246	228	224	340	271	310	292	264	276	288	293
SINGAPORE ⁽⁴⁾	1982	T	10	—	1	2	—	—	2	..	1	1	—	1	—	2
THAILAND ⁽⁵⁾	1981	T	68	7	4	2	2	5	6	..	11	8	10	10	1	2
	1982	T	61	8	5	11	8	3	3	..	6	8	2	3	4	—

Source: World Health Statistics Annual, 1980–1981, WHO

(1) Statistics of Communicable Disease, Japan, 1981

(2) World Health Statistics Annual, 1979, WHO

(3) Philippine Health Statistics, Ministry of Health, MLA, 1978

(4) Ministry of Environment

(5) Weekly Epidemiological Surveillance Record, Thailand

Note: (a) Number of Cases by Typhoid Fever and Paratyphoid Fever

6-4. Seasonal Distribution of Bacillary Dysentery (Cases)

	Year	Sex	Total	Months or Four-Week Periods												
				Jan. I	Feb. II	Mar. III	Apr. IV	May V	Jun. VI	VII	Jul. VIII	Aug. IX	Sept. X	Oct. XI	Nov. XII	Dec. XIII
INDONESIA																
JAPAN ⁽¹⁾	1981	T	969	120	130	85	79	56	51	• •	43	93	52	30	125	105
MALAYSIA Peninsular Malaysia ⁽²⁾	1976	T	111	6	11	11	11	12	21	• •	12	3	6	8	6	4
Sabah ⁽³⁾	1977	T	137	5	9	30	4	16	8	• •	15	9	14	6	8	13
Sarawak ^(a)	1978	T	123	9	9	9	6	8	7	• •	13	14	13	13	11	11
PHILIPPINES ^{(4)(a)}	1978	T	27,653	1,658	1,761	1,653	1,679	1,701	2,223	2,706	2,932	2,407	2,175	2,386	2,414	1,958
SINGAPORE																
THAILAND ⁽⁵⁾	1981 1982	T T	9,608 12,019	473 870	526 908	893 1,372	1,038 1,190	943 1,161	1,243 1,501	• • • •	919 1,045	604 813	595 699	725 879	886 890	763 691

Source: World Health Statistics Annual, 1980-1981, WHO

(1) Statistics of Communicable Disease, Japan, 1981

(2) World Health Statistics Annual, 1978, WHO

(3) World Health Statistics Annual, 1979, WHO

(4) Philippine Health Statistics, Ministry of Health, MHA, 1978

(5) Weekly Epidemiological Surveillance Report, Thailand

Note: (a) Number of Cases by Bacillary Dysentery and Amoebiasis

6-5. Seasonal Distribution of Food Poisoning (Cases)

	Year	Sex	Total	Months or Four-Week Periods												
				Jan. I	Feb. II	Mar. III	Apr. IV	May V	Jun. VI	VII	Jul. VIII	Aug. IX	Sept. X	Oct. XI	Nov. XII	Dec. XIII
INDONESIA																
JAPAN ⁽¹⁾	1981	T	24,466	190	662	464	715	1,637	2,755	..	5,802	5,009	3,842	1,553	890	947
MALAYSIA Peninsular Malaysia	1978	T	598	53	91	40	76	38	20	..	20	23	115	56	33	33
Sabah ⁽²⁾	1977	T	99	10	20	14	7	—	7	..	6	9	3	2	18	3
Sarawak ⁽²⁾	1977	T	37	2	1	1	1	8	—	..	1	5	8	9	1	—
PHILIPPINES ⁽³⁾	1978	T	321	26	29	26	27	17	39	28	32	25	24	14	19	15
SINGAPORE ⁽⁴⁾	1982	T	932	97	244	207	24	36	25	..	8	37	19	45	144	50
THAILAND ⁽⁵⁾	1981 1982	T T	21,729 27,580	1,585 2,653	1,686 1,947	2,051 2,553	2,249 2,582	2,387 2,708	2,324 2,653	.. ..	1,833 2,496	1,623 2,192	1,599 2,178	1,593 2,136	1,452 1,939	1,347 1,543

Source: World Health Statistics Annual, 1980–1981, WHO

(1) Statistics of Food Poisoning, Japan 1981

(2) World Health Statistics Annual, 1979, WHO

(3) Philippine Health Statistics, Ministry of Health, MLA, 1978

(4) Ministry of Environment

(5) Weekly of Epidemiological Surveillance Record, Thailand

7-1. Notifiable Infectious Diseases

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

ICD Number		Indonesia	Japan	Malaysia	Singapore	Thailand
090	Congenital Syphilis		v	v ^(d)	v	v
098	Gonococcal Infections		v	v	v	v
099	Other Venereal Diseases		v	v	v	v
100	Leptospirosis		v	v		v
102	Yaws			v		v
120	Schistosomiasis [Bilharziasis]		v			
125	Filarial Infection and Dracontiasis		v	v		
487	Influenza		v			v

Note: (a) Only Food Poisoning
 (b) Only Tetanus Neonatorum
 (c) Only Hemolytic Fever
 (d) Syphilis and Its Sequelae

8-1. Infectious Diseases Specified by Immunization Program

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

Note: (a) Only on the occasion of outbreaks.
 (b) Started from 1982 in the restricted area.
 (c) Immunization Required under I.M.R.

9-1. Crude Live-birth Rates

(Per 1,000 Population)

Year	1970	1975	1976	1977	1978	1979	1980	1981	1982
INDONESIA	43.8	40.2 ^(a)					36.2		33.7
JAPAN	18.8	17.1	16.3	15.5	15.0	14.3 ⁽¹⁾	13.7 ⁽¹⁾	13.1 ⁽¹⁾	12.8 ⁽⁵⁾
MALAYSIA									
Peninsular Malaysia	33.9	31.3	31.7	30.7	30.1 ⁽²⁾	30.5 ⁽²⁾	31.7 ⁽²⁾		
Sabah	37.9	35.4	36.6	37.2	34.9	—	—		
Sarawak	30.4	29.7	29.1	29.1	28.3	29.4	29.4		
PHILIPPINES	26.2	28.3	30.1 ⁽³⁾	30.3 ⁽³⁾	30.5 ⁽³⁾	30.8 ⁽³⁾			
SINGAPORE	22.1	17.8	18.8	16.6	16.9	17.3 ⁽¹⁾	17.3 ⁽¹⁾	17.0 ⁽¹⁾	17.3 ⁽⁴⁾
THAILAND	32.0	27.1	27.1	26.3	24.4 ⁽³⁾	23.3 ⁽³⁾	22.8 ⁽³⁾	22.4 ⁽³⁾	22.2

Source: Demographic Yearbook 1981, UN

(1) Monthly Bulletin of Statistics, Sept. 1983, Vol. XXXVII No. 9, UN

(2) Monthly Statistical Bulletin, Peninsular Malaysia, Aug. 1983, Dept. of Statistics

(3) Population and Vital Statistics Report, Series A 1980, 1981, 1982, 1983, UN

(4) Yearbook of Statistics, Singapore, 1982/83

(5) 1982 Vital Statistics Preliminary Figures, Min: of Health & Welfare, Sept. 1983

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

9-2. Crude Death Rates

(Per 1,000 Population)

Year	1970	1975	1976	1977	1978	1979	1980	1981	1982
INDONESIA	18.7 ⁽⁴⁾	16.7*	14.3 ⁽⁴⁾	13.9 ⁽⁴⁾	13.5 ⁽⁴⁾	13.1 ⁽⁴⁾	12.5 ⁽⁴⁾	12.3 ⁽⁴⁾	12.3 ⁽⁴⁾
JAPAN	6.9	6.3	6.3	6.1	6.1	6.0 ⁽¹⁾	6.2 ⁽¹⁾	6.2 ⁽¹⁾	6.0 ⁽⁶⁾
MALAYSIA									
Peninsular Malaysia	7.3	6.4	6.1	6.3	5.9 ⁽²⁾	5.8 ⁽²⁾	5.9 ⁽²⁾		
Sabah	5.9	4.3	4.7	4.3					
Sarawak	5.2	5.0	4.4	4.7					
PHILIPPINES	6.7	6.4	6.9	6.9 ⁽³⁾	7.0 ⁽³⁾	6.5 ⁽³⁾			
SINGAPORE	5.2	5.1	5.1	5.2	5.2	5.3 ⁽¹⁾	5.2 ⁽¹⁾	5.3 ⁽¹⁾	5.2 ⁽⁵⁾
THAILAND	6.3	5.7	5.5	5.4	5.2	5.2	5.3 ⁽³⁾	5.0 ⁽³⁾	5.1

Source: Demographic Yearbook 1975, 1979, 1981, UN

(1) Monthly Bulletin of Statistics, Aug. 1983, Vol. XXXVII No. 8, UN

(2) Monthly Statistical Bulletin, Peninsular Malaysia, Aug. 1983, Dept. of Statistics

(3) Population and Vital Statistics Report, 1980, 1981, 1982, 1983, UN

(4) Calculated by Health Planning Bureau, MOH

(5) Yearbook of Statistics, Singapore, 1982/83

(6) 1982 Vital Statistics Preliminary Figures, Min. of Health & Welfare, Sept. 1983

9-3. Vital Statistics Rates

(Per 1,000 Population)

	Year	Crude Marriage Rates	Crude Divorce Rates	Birth		Death	
				Crude	General Fertility Rates	Crude	Infant
INDONESIA ⁽¹⁾	1980	10.6 ^(a)			138.6 ^{(1)(b)}	12.5	98
JAPAN ^{(1),(2)}	1982	6.6	1.39	12.8	53.8 ^{(1)(e)}	6.0	6.6
MALAYSIA							
Peninsular Malaysia ⁽³⁾	1980	1.7 ^(c)	0.02 ^(g)	31.7	139.6 ^{(1)(b)} 122.1 ^{(1)(c)}	5.9	24.9
Sabah ⁽¹⁾	1977			35.6	176.4 ^{(1)(d)}	4.3	28.2
Sarawak ⁽¹⁾	1977	3.5 ^(f)	0.1 ^(f)	29.0	150.3 ^{(1)(d)}	4.7	25.4
PHILIPPINES ^{(1),(4)}	1978	7.1 ^(h)	0.14 ^(h)	30.5	142.3	6.5	53.1
SINGAPORE ⁽⁵⁾	1982	9.4		17.3	63.8	5.2	10.7
THAILAND ^{(1),(6)}	1980 1981 1982	6.5	0.49 ^(c)	23.2 22.4 22.2	103.0 97.9 95.7	5.3 5.0 5.1	13.3 12.5 12.4

Source: (1) Demographic Yearbook 1981
 (2) Monthly Statistics of Japan, Sept. 1983, No. 267, Statistics Bureau
 (3) Monthly Statistical Bulletin Aug. 1983, Peninsular Malaysia, Dept. of Statistics
 (4) D.I.C. Ministry of Health, Philippine Health Statistics, 1978
 (5) Yearbook of Singapore, 1982/83 Department of Statistics, Singapore
 (6) Statistical Yearbook Thailand, 1976-80, No. 32, National Statistical Office

Note: (a) For 1962 estimated by UN
 (b) For 1978
 (c) For 1979
 (d) For 1970
 (e) For 1981
 (f) For 1972
 (g) For 1976
 (h) For 1975

9.4. Natality, General Mortality and Natural Increase

	Year	Natality (live-born)				General Mortality				Natural Increase (0/00)
		(Number)			(0/00) Total	(Number)			(0/00) Total	
		Total	Male	Female		Total	Male	Female		
INDONESIA										
JAPAN ⁽¹⁾	1982	1,515,398	777,855	737,537	12.8	711,883	385,494	326,389	6.0	6.8
MALAYSIA	1977	388,177			30.9	74,049			5.9	25.0
Peninsular Malaysia	1978	323,054	165,833	157,221	30.0	61,707	35,526	26,181	5.7	24.3
	1979	336,324	173,211	163,113	30.4	63,566	36,407	27,159	5.8	24.6
	1980 ⁽⁴⁾	347,015	—	—	31.7	64,212	—	—	5.9	25.8
Sabah	1977	32,190	16,604	15,586	35.6	3,921	2,358	1,563	4.3	31.3
Sarawak	1978	33,580	17,317	16,263	28.2	5,012	3,002	2,010	4.2	24.0
PHILIPPINES	1977	1,344,836	696,797	648,039	30.3	308,904	171,917	136,987	7.0	23.3
	1978 ⁽²⁾	1,387,588	717,805	669,783	30.5	297,034	169,332	127,702	6.5	24.0
SINGAPORE ⁽³⁾	1982	42,654	22,285	20,367	17.3	12,896	7,493	5,402	5.2	12.0
THAILAND	1980	1,077,300	554,499	522,801	23.2	247,970	143,840	104,130	5.3	17.9
	1982	1,075,632	548,643	526,989	22.2	247,402	144,066	103,336	5.1	1.7

Source: World Health Statistics, 1982, WHO

(1) Monthly Statistics of Japan, Sept. 1983, Statistics Bureau

(2) 1978 Philippine Health Statistics Ministry of Health, M.L.A.

(3) Monthly Digest of Statistics, August 1983, Department of Statistics, Singapore

(4) Monthly Statistical Bulletin, Aug. 1983, Dept. of Statistics, Peninsular Malaysia

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

10-1. 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
INDONESIA ⁽¹⁾	1980			10.4 ⁽¹⁾		4.8 ⁽²⁾				4.45 ⁽²⁾	
JAPAN ⁽¹⁾	1982	10,236	6.8	9,969	6.6	6,425	4.2	3,544	2.4	15,303	10.1
MALAYSIA											
Peninsular Malaysia	1978	5,224	16.2	8,631	26.7	5,647	17.5	2,984	9.2	9,492	29.4
Sabah	1977	150	4.7	909	28.2	505	15.7	404	12.6	519	16.1
Sarawak	1978	128	3.9	669	19.9	315	9.4				
	1979	145	4.1	696	19.5						
PHILIPPINES ⁽³⁾	1978	14,365	10.4	73,640	53.1	30,984	22.3	42,656	30.7	13,617	9.8
SINGAPORE ⁽⁴⁾	1981	282	6.6	451	10.7	320	7.6	131	3.1	537	12.6
THAILAND	1980	1,193	1.1	14,286	13.3	5,723	5.3	8,563	7.9	4,652	4.3
	1981	1,150	1.1	13,305	12.5	5,369	5.1	7,936	7.5	4,428	4.2
	1982	1,269	1.2	13,286	12.4	5,238	4.9	8,948	7.5	4,647	4.3

Source: World Health Statistics, 1982, WHO

(1) Survey in Berung, West Java, 1980

(2) 1982 Vital Statistics, Preliminary Figures, Min. of Health Welfare, Sept. 1983

(3) 1978 Philippine Health Statistics Ministry of Health, MLA

(4) Report on Registration of Births & Deaths, 1981

Note: (a) For 1979

Absolute numbers and crude rates per 1,000 live-born.

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.

10-2. Infant Deaths and Infant Mortality Rates by Age and Sex

	Year	Sex	Number						Rates (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
INDONESIA		T M F												
JAPAN ⁽¹⁾	1981	T M F	10,891 6,148 4,743	2,726 1,517 1,209	2,876 1,707 1,169	1,586 887 699	3,703 2,037 1,666		7.1 — —		3.7	4.8	2.4	
MALAYSIA														
Peninsular Malaysia	1978	T M F	9,080 5,220 3,860	4,268 2,528 1,740		1,379 780 599	3,433 1,912 1,521		28.1 31.5 24.6		13.2 15.2 11.1	4.3 4.7 3.8		
Sabah	1977	T M F	909 530 379	369 225 144		136 74 62	404 231 173							
Sarawak	1978	T M F	575 318 257		426 235 191		149 83 66							
PHILIPPINES ⁽²⁾	1978	T M F	73,640 41,837 31,803	8,698	12,548	9,738	42,656		53.1 58.3 47.5	6.3	9.0	7.0	30.7	
SINGAPORE ⁽³⁾	1981	T M F	451 ^(a) 252 195	139 84 52	116 65 51	65 38 26	131 65 66							
THAILAND	1982	T M F	13,286 7,792 5,494	546 316 230	2,832 1,671 1,161	1,860 1,082 778	7,580 4,442 3,138	468 281 187	12.4 14.2 10.4	0.5 0.6 0.4	2.6 3.0 2.2	1.7 2.0 1.5	7.0 8.1 5.9	0.4 0.5 0.4

Source: Demographic Yearbook 1980, UN

(1) Vital Statistics Japan 1980, Min. of Health and Welfare, Japan

(2) 1978 Philippine Health Statistics, Ministry of Health, MLA

(3) Report on Registration of Births and Deaths, Singapore, 1981

Note: (a) Including infant deaths of unknown age

10-3. Maternal Deaths

	1970	1975	1976	1977	1978	1979	1980	1981	1982
INDONESIA									
JAPAN ^{(a)(b)}	967	525	458	395	367	323			
MALAYSIA ^(c)									
Peninsular Malaysia ⁽¹⁾	441	261	252	254	272	231			
Sabah	22			5					
Sarawak ^(a)					9				
PHILIPPINES ⁽²⁾	1,950	1,753	1,862 ⁽³⁾	1,909	1,734 ⁽³⁾				
SINGAPORE ^{(4)(d)}	15	12	6	6	8	3	2	2	
THAILAND ⁽⁵⁾	2,589	1,944	1,738	1,394	1,355	1,105	1,061	863	749

Source: Demographic Yearbook 1981, UN

(1) Monthly Statistical Bulletin Peninsular Malaysia, Feb. 1982, Dept. of Statistics
(2) 1979 Philippine Statistical Yearbook, National Economic and Development Authority

(3) Philippine Health Statistics, Ministry of Health, MLA, 1978

(4) Report on the Registration of Births and Deaths, Singapore

(5) Statistical Yearbook, Thailand 1976-80, National Statistical Office

Note: (a) All data classified by 1965 Revision

(b) Prior to 1973, excluding Okinawa. For Japanese nationals in Japan only

(c) Medically certified or inspected deaths only

(d) Data based on IC09, 1975 Revision

10-4. Maternal Mortality Rates

(per 100,000 live births)

	1970	1975	1976	1977	1978	1979	1980	1981	1982
INDONESIA ⁽⁷⁾		1,540	1,390	1,220	920	1,480			
JAPAN ^{(a)(b)}	50.0	27.6	25.0	22.5	21.5	20.5			
MALAYSIA ^(c)									
Peninsular Malaysia ⁽¹⁾⁽⁵⁾	148	83	78	79	84	69			
Sabah									
Sarawak ^(a)									
PHILIPPINES ⁽²⁾⁽⁵⁾	200	140	140	140	120				
SINGAPORE ^{(d)(6)}	32.7	30.0	14.0	15.6	20.3	7.4	4.9	4.7	
THAILAND ⁽⁵⁾	226.1	171.7	149.0	129.2	130.3	102.8	98.5	81.2	69.6

Source: Same as previous page

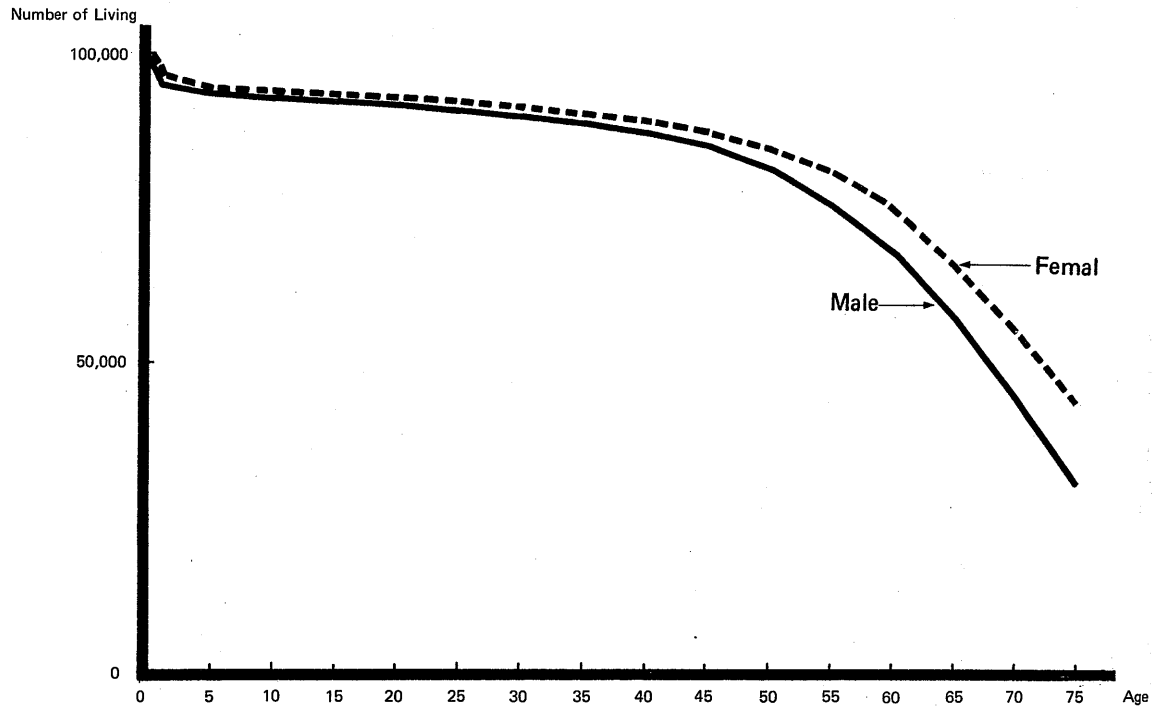
(5) Rates are multiplied by 100, because original data are shown in the rate per 1,000 live births

(6) Rates based on 30 or fewer maternal deaths

(7) Survey in Hasan Srdilin Hospital, West Java, 1975-1979

Fig. 4. Number of Surviving out of 100,000 Born Alive at Selected Ages by Sex (1)

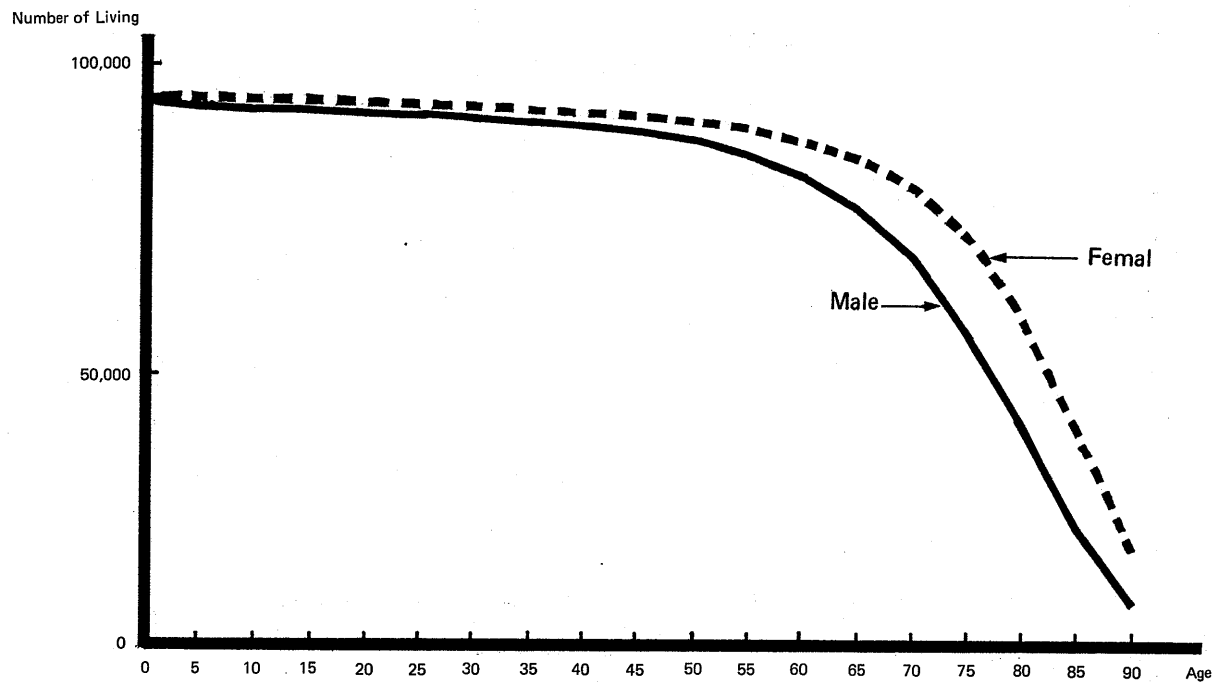
Peninsular Malaysia, 1976



Source: World Population Trends and Prospects by Country, 1950–2000: Summary report of the 1978 assessment, UN, 1979

Fig. 4. Number of Surviving out of 100,000 Born Alive at Selected Ages by Sex (2)

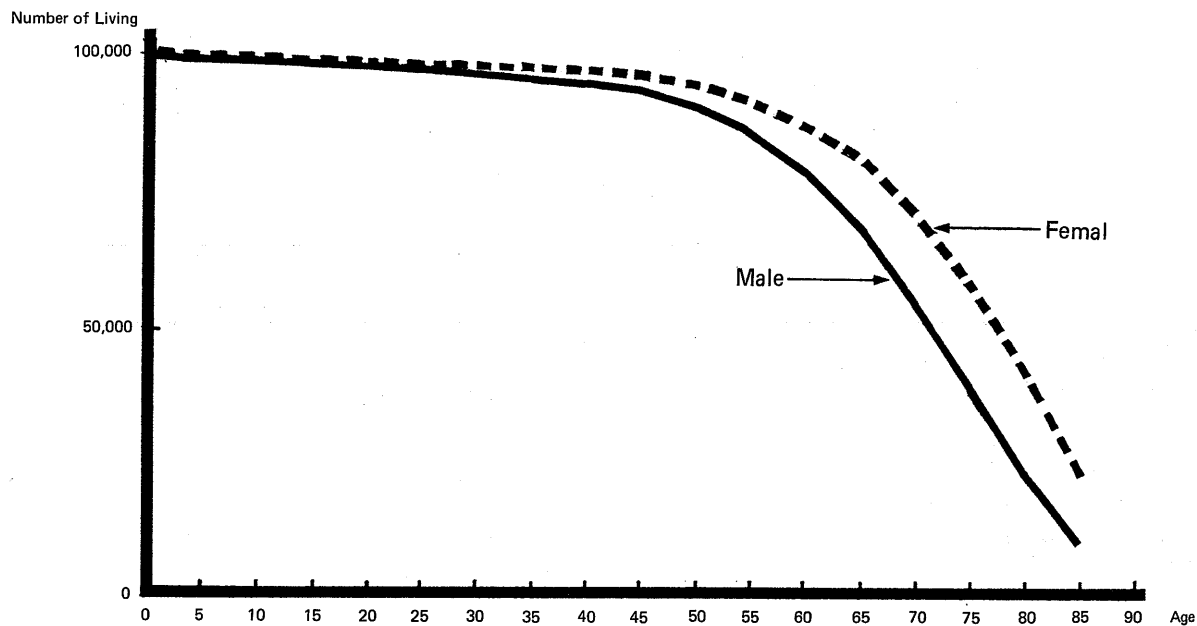
Singapore, 1980



Source: Population Projections for Singapore, 1980–2030, Singapore Family Planning & Population Board

Fig. 4. Number of Surviving out of 100,000 Born Alive at Selected Ages by Sex (3)

Japan, 1982



Source: Abridged Life Table 1982, Min. of Health & Welfare, Japan

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

	Year	Sex	Age								
			0	1	2	3	4	5	10	15	20
INDONESIA	1975— 1980	M F	48.7 51.3								
JAPAN ⁽¹⁾	1982	M F	74.22 79.66	73.76 79.13	72.84 78.20	71.88 77.24	70.92 76.26	69.95 75.28	65.05 70.35	60.12 65.40	55.33 60.48
MALAYSIA ⁽¹⁾ Peninsular Malaysia	1979	M F	67.17 72.49	68.20 73.18				64.86 69.85	60.18 65.12	55.39 60.30	50.69 55.52
Sabah	1970	M F	48.79 45.43	53.03 49.38				51.39 48.20	47.11 43.97	42.54 39.39	37.86 35.14
Sarawak	1970	M F	51.15 52.69	55.71 56.32				53.98 54.66	49.58 50.29	44.96 45.64	40.31 41.24
PHILIPPINES	1975— 1980	M F	59.10 62.40								
SINGAPORE ⁽²⁾	1980	M F	68.7 74.0					64.8 70.1	59.9 65.2	55.0 70.3	50.2 55.4
THAILAND	1975— 1980	M F	57.60 63.00								

Source: Demographic Yearbook 1981

(1) Abridged Life Table 1982, Min. of Health & Welfare, Japan

(2) Yearbook of Statistics, Singapore, 1982/83

Age												
25	30	35	40	45	50	55	60	65	70	75	80	85
50.55 55.58	45.75 50.69	40.97 45.84	36.24 41.02	31.64 36.26	27.24 31.60	23.03 27.04	18.99 22.61	15.18 18.35	11.74 14.35	8.79 10.75	6.45 7.73	4.64 5.36
46.06 50.78	41.43 46.04	36.80 41.36	32.27 36.77	27.91 32.30	23.82 27.91	19.99 23.73	16.59 20.00	13.57 16.62	11.37 13.94	9.47 11.80		
33.60 31.14	29.38 27.57	25.05 24.13	20.96 20.72	17.19 17.57	13.95 14.35	11.18 11.65	8.30 8.35	6.81 6.95	4.22 4.27			
35.98 37.00	31.79 33.28	27.49 29.75	23.50 26.34	19.91 22.86	16.85 19.36	13.91 16.01	11.07 12.75	9.05 11.37	6.68 7.82	5.34 5.91		
45.5 50.6	40.7 45.7	36.0 40.9	31.3 36.2	26.8 31.5	22.6 27.0	18.7 22.8	15.2 18.8	12.2 15.1	9.7 11.8			

11-2. Number of Surviving out of 100,000 Born Alive by Age and Sex (1)

	Year	Sex	Age							
			0	1	5	10	15	20	25	30
INDONESIA										
JAPAN⁽¹⁾	1982	M	100,000	99,269	99,015	98,865	98,758	98,399	97,989	97,578
		F	100,000	99,419	99,220	99,129	99,059	98,933	98,763	98,550
MALAYSIA⁽²⁾										
Peninsular Malaysia	1970	M	100,000	95,361	93,715	93,025	92,560	91,918	91,121	90,239
		F	100,000	96,453	94,769	94,121	93,727	93,204	92,508	91,586
Sabah	1970	M	100,000	90,259	86,315	85,050	84,245	83,570	81,851	79,860
		F	100,000	90,136	85,119	83,706	82,868	81,196	78,790	75,019
Sarawak	1970	M	100,000	90,155	86,537	85,531	84,843	84,163	82,682	80,732
		F	100,000	91,880	88,133	87,070	86,432	85,254	83,601	80,599
PHILIPPINES										
SINGAPORE⁽³⁾	1980	M	100,000	98,746	98,481	98,353	98,176	97,755	97,180	96,560
		F	100,000	98,897	98,612	98,469	98,307	98,091	97,816	98,489
THAILAND										

Source: (1) Abridged Life Table 1982, Min. of Health & Welfare, Japan

(2) Abridged Life Table Malaysia 1970, Dept. of Statistics, Malaysia, March 1974

(3) Population Projections for Singapore, 1980-2030, Singapore Family Planning & Population Board

Age											
35	40	45	50	55	60	65	70	75	80	85	
97,089 98,254	96,394 97,840	95,270 97,223	93,334 96,253	90,428 94,799	86,375 92,663	80,478 89,317	71,583 83,988	58,394 74,929	40,925 60,188	22,733 39,855	
89,028 90,497	87,516 89,161	85,253 87,254	81,846 84,619	76,257 80,561	68,775 75,000	57,795 66,316	44,867 55,804	30,803 43,160			
77,899 70,626	74,841 65,771	70,143 59,689	62,559 53,327	52,331 44,674	41,927 37,542	26,161 23,253	16,871 15,365				
78,834 76,920	75,757 72,684	70,944 68,318	63,790 63,617	55,747 57,928	46,819 51,247	34,745 40,738	24,787 31,053	13,253 19,610			
95,881 97,081	94,932 96,457	93,411 95,507	90,623 93,855	85,802 91,127	78,538 86,768	67,978 80,194	54,423 70,702	39,325 57,474	24,028 41,447	11,382 23,963	

12-1. Per Capita Food Supplies (1)

	Year	Energy (k cal/day)			Protein (g/day)			Fat (g/day)		
		Grand Total	Vegetable Products	Animal Products	Grand Total	Vegetable Products	Animal Products	Grand Total	Vegetable Products	Animal Products
INDONESIA ⁽¹⁾	1980	2,570			48.4			51.9		
JAPAN ⁽²⁾	1978	2,167	1,705	443	80.0	39.8	39.8	54.7	27.8	26.7
	1979	2,167			78.4			54.8		
	1980	2,084	1,626	436	77.9	38.2	39.2	52.4	26.0	26.0
MALAYSIA	1977	2,613	2,319	294	57.6	35.7	21.9	45.5	29.2	16.3
PHILIPPINES ⁽³⁾	1978	2,288			51.4					
	1979	2,342			52.6					
SINGAPORE	1977	3,074	2,446	629	84.2	45.1	39.1	76.8	32.8	43.9
THAILAND	1977	2,098	1,952	146	46.3	32.2	14.1	22.5	13.8	8.7

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

(1) Central Bureau of Statistics, Welfare Indicators, 1982

(2) Japan Statistical Yearbook, 1983

(3) 1982 Philippine Statistical Yearbook

12-1. Per Capita Food Supplies (2)

(mg/day)

	Year	Calcium	Iron	Vitamin A	Vitamin B ₁	Vitamin B ₂	Vitamin C
INDONESIA	1977	221	13.6	30	1.06	0.48	56
JAPAN ⁽²⁾	1978 1979 1980	562.2 548.3 535.0	13.9 13.3 13.1	1,852.8 1,628.3 1,575.9	1.2 1.2 1.16	1.1 1.0 1.01	122.7 115.1 107.1
MALAYSIA	1977	330	13.5	135	0.87	0.79	44
PHILIPPINES	1977	269	12.9	80	0.94	0.72	72
SINGAPORE	1977	656	21.8	269	1.59	1.38	76
THAILAND	1977	243	13.9	73	0.87	0.64	60

13-1. 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
INDONESIA ⁽¹⁾	1980	Total	7.3	11.0 ^(a)	25.3 ^(a)	53.1 ^(a)		13.9	—	85.0	0.8
		Urban	24.4	43.0	17.9	25.4		46.7	—	52.6	0.4
		Rural	2.4	5.1	26.6	58.2		5.5	—	93.3	0.9
JAPAN ⁽²⁾	1978	Total	92.7	45.9	53.8						
		Urban	95.0	54.2	45.6						
		Rural	84.5	15.7	84.3						
MALAYSIA ⁽³⁾ Peninsular Malaysia Sabah Sarawak	1980	Total	65.0	56.4	22.7	4.4	16.5	64.4	8.4	26.5	0.7
		Total	68.0	60.0	21.7	3.6	14.7	68.4	7.3	23.6	0.7
		Total	50.3	32.2	32.9	8.0	26.9	45.0	15.7	38.7	0.6
		Total	47.8	41.3	24.4	9.6	24.7	41.6	13.2	44.5	0.7
PHILIPPINES ⁽⁴⁾	1970	Total	24.0 ^{(5)(b)}	22.6	38.8	1.9	36.7	23.2	75.6	0.5	
		Urban	80.0(Metro Manila)	48.4	31.1	3.4	17.2	60.4	39.0	0.4	
		Rural	38.0(Other Areas)	11.2	42.2	1.2	45.3	6.8	91.7	0.5	
SINGAPORE ⁽⁶⁾	1982	Total	99.0	83.0	1.6						
THAILAND ⁽⁷⁾	1970	Total	29.5	2.4	45.0	50.8		8.9	← 91.1 →		
		Urban	74.0	5.6	84.0	9.3		86.1	← 13.9 →		
		Rural	3.4	0.5	22.2	75.0		9.0	← 91.0 →		

- Source: (1) Results of the Sub-Sample of the 1980 Population Census, Serie S No.1, Biro Pusat Statistik, May 1982
 (2) Housing of Japan, Summary of the Results of 1978, Housing Survey of Japan, Statistics Bureau, March 1981, Tokyo
 (3) Census of Housing, Malaysia 1980 Summary Report, Dept. of Statistics Malaysia, July 1981
 (4) Philippines 1970 Census of Population and Housing, National Census & Statistics Office, Dec. 1974
 (5) Report No. 1, Integrated Water Supply Programme (1980-2000)
 (6) Public Utilities Board and Ministry of Environment
 (7) 1970 Population & Housing Census, Whole Kingdom, National Statistical Office, 1973
- Note: (a) For 1971
 (b) For 1980

14-1. Mean Length from Birth to One Year

(cm)

Country	People or Place	Year	Sex						
				Birth	4 wks	3 mos	6 mos	9 mos	12 mos
Indonesia	Jakarta ^(a)	1964	M		52	59	64	67	71
			F		52	57	63	67	70
Japan ⁽¹⁾	National	1980	M	49.7	56.0	62.7	68.1	72.0	75.5
			F	49.3	55.2	61.1	66.8	70.6	74.1
Malaysia									
Philippines	Manila ^(a)	1967	M		53	60	66	70	72
			F		52.5	59	65	69	73
Singapore	Malays	1972	M			60.2	65.3		73.6
			F			59.5	64.0		71.5
	Chinese	1972	M			61.8	66.5	71.0	74.5
			F			60.0	65.0	69.5	73.0
Thailand	Bangkok		M		56.1	62.0	67.8	71.9	73.5
			F		55.0	60.3	65.9	69.6	72.2

Source: Worldwide variation in human growth, Cambridge University Press, 1976

(1) Ministry of Health & Welfare, Japan

Note: (a) Low income group

14-2. Mean Weight from Birth to One Year

(kgw)

Country	People or Place	Year	Sex	Age					
				Birth	4 wks	3 mos	6 mos	9 mos	12 mos
Indonesia	Jakarta (a)	1964	M	3.09	4.16	5.89	7.26	7.74	8.16
			F	3.01	3.79	5.43	6.80	7.50	8.01
Japan ⁽¹⁾	National	1980	M	3.23	5.08	6.84	8.15	9.04	9.71
			F	3.16	4.76	6.24	7.71	8.47	9.09
Malaysia									
Philippines	Manila (a)	1967	M	3.07	4.04	5.80	7.16	8.25	9.53
			F	2.94	3.70	5.20	6.74	7.84	9.28
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
Thailand	Bangkok		M	3.12	4.65	6.34	7.74	8.62	9.10
			F	3.01	4.46	5.61	7.33	7.97	8.50

Source: Worldwide variation in human growth, Cambridge University Press, 1976

(1) Ministry of Health & Welfare, Japan

Note: (a) Low income group

14-3. Mean Chest Circumference from Birth to One Year

(cm)

Country	People or place	Year	Sex	Age					
				Birth	4 wks	3 mos	6 mos	9 mos	12 mos
Indonesia	Jakarta ^(a)	1964	M	31.5	34.5	38	40.5	42	43.5
			F	32.5	34.5	37	40	41.5	43
Japan ⁽¹⁾	National	1980	M	32.5	39.1	42.4	44.6	46.1	47.0
			F	32.4	38.2	41.2	43.6	44.9	45.7
Malaysia									
Philippines									
Singapore									
Thailand	Bangkok		M	32.0	37.9	41.0	43.4	44.7	45.8
			F	31.9	37.5	40.1	42.7	43.5	44.1

Source: Worldwide variation in human growth, Cambridge University Press, 1976

(1) Ministry of Health & Welfare, Japan

Note: (a) Low income group

14-4. Mean Height by Age (1-18 year)

(cm)

Country	People or Place	Year	Sex	Age (yr)						
				1	2	3	4	5	6	7
Indonesia ⁽¹⁾	National	1977	M		82.2	88.5	97.2	102.4	107.1	112.1
			F		80.8	88.3	96.2	100.6	106.2	111.5
Japan	National	1980	M	75.5 ⁽²⁾	87.2 ⁽²⁾	94.8 ⁽²⁾	101.5 ⁽²⁾	107.6 ⁽²⁾	115.9 ⁽³⁾	121.4 ⁽³⁾
			F	74.1	86.3	93.9	100.9	107.1	115.1	120.8
Malaysia	Rural	1960	M							109.7
			F						105.4	109.7
Philippines	Rural		M	70.8	78.5	86.0	92.7	99.0	104.8	110.6
			F	69.2	77.4	86.0	91.8	98.5	104.5	110.6
Singapore	Malays	1972	M	73.6	82.5	89.5	95.0	101.2	107.2	112.0
			F	71.5	81.5	88.7	94.7	100.3	106.7	111.5
	Chinese	1972	M	74.6	85.9	92.5	98.5	104.5	111.0	115.9
			F	73.0	84.5	91.5	97.7	104.0	110.2	114.6
Thailand	National	1980	M	73.5 ^(a)	83.8 ^(a)	93.5 ^(a)	100.5 ^(a)	108.34 ⁽⁴⁾	112.82 ⁽⁴⁾	116.23 ⁽⁴⁾
			F	72.2	84.0	93.0	99.0	106.93	111.86	115.63

Source: Worldwide variation in human growth, Cambridge University Press, 1976

(1) Data from Dept. of Growth & Development, Univ. of Tsukuba, Japan

(2) Ministry of Health & Welfare, Japan

(3) Ministry of Education, Japan

(4) Ministry of Education, Thailand

Note: (a) Survey in Bangkok

Age (yr)										
8	9	10	11	12	13	14	15	16	17	18
118.0 116.1	122.6 121.2	125.2 125.5	129.6 130.8	133.2 136.4	142.7 143.7	147.7 146.1	153.2 149.1	157.8 150.7	159.4 152.4	161.2 151.2
126.8 ⁽³⁾ 126.1	132.1 ⁽³⁾ 131.9	137.2 ⁽³⁾ 138.2	142.8 ⁽³⁾ 145.0	149.8 ⁽³⁾ 150.5	157.3 ⁽³⁾ 154.2	163.2 ⁽³⁾ 156.0	167.3 ⁽³⁾ 156.6	169.0 ⁽³⁾ 156.9	169.7 ⁽³⁾ 157.1	
111.8 112.8	114.3 117.9	121.9 123.4	129.3 131.8	133.4 137.2	138.4	141.4				
116.3 116.5	120.7 120.7	125.0 124.5	129.3 130.5	134.0 137.4	139.3 142.5	147.5 147.0	154.0 150.6	158.8 151.2	151.0	
117.5 116.0	122.5 121.5	126.7 126.2	131.0 133.0	135.2 139.3	140.5 143.2	145.3 149.0				
120.0 119.2	125.0 124.0	129.5 129.5	133.0 135.0	138.2 141.0	144.0 145.0	149.5 149.0				
120.62 ⁽⁴⁾ 120.21	125.67 ⁽⁴⁾ 126.08	130.83 ⁽⁴⁾ 131.80	135.14 ⁽⁴⁾ 136.97	139.04 ⁽⁴⁾ 142.23	146.62 ⁽⁴⁾ 146.86	153.14 ⁽⁴⁾ 150.20	158.98 ⁽⁴⁾ 152.26	161.15 ⁽⁴⁾ 152.64	163.41 ⁽⁴⁾ 153.71	163.57 ⁽⁴⁾ 155.00

14-5. Mean Weight by Age (1–18 year)

(kgw)

Country	People or Place	Year	Sex	Age (yr)						
				1	2	3	4	5	6	7
Indonesia ⁽¹⁾	National	1977	M		10.4	12.1	13.8	15.5	15.7	18.2
			F		10.1	11.6	13.2	14.5	15.7	17.0
Japan	National	1980	M	9.7 ⁽²⁾	12.2 ⁽²⁾	14.3 ⁽²⁾	16.1 ⁽²⁾	17.9 ⁽²⁾	20.9 ⁽³⁾	23.2 ⁽³⁾
			F	9.1	11.9	13.9	15.8	17.6	20.4	22.8
Malaysia	Rural	1960	M							17.8
			F						16.4	18.6
Philippines	Rural		M	8.0	9.5	11.3	12.6	14.3	15.5	17.2
			F	7.5	9.0	10.8	12.3	14.0	15.5	16.7
Singapore	Malays	1972	M	8.8	10.5	12.3	13.9	15.2	16.7	18.0
			F	8.0	10.0	12.0	13.5	14.5	16.3	17.9
	Chinese	1972	M	9.2	11.4	13.3	14.5	16.0	18.0	19.0
			F	8.9	10.8	12.7	14.0	15.5	17.0	18.5
Thailand	National	1980	M	9.1 ^(a)	11.0 ^(a)	13.4 ^(a)	15.1 ^(a)	16.83 ⁽⁴⁾	18.16 ⁽⁴⁾	19.42 ⁽⁴⁾
			F	8.5	10.9	13.0	14.5	16.08	17.52	19.24

Source: Worldwide variation in human growth, Cambridge University Press, 1976

(1) Data from Dept. of Growth & Development, Univ. of Tsukuba, Japan

(2) Ministry of Health & Welfare, Japan

(3) Ministry of Education, Japan

(4) Ministry of Education, Thailand

Note: (a) Survey in Bangkok

Age (yr)										
8	9	10	11	12	13	14	15	16	17	18
19.9 19.2	21.3 21.6	23.3 23.4	25.7 26.3	27.3 30.3	31.8 33.4	37.1 37.6	40.9 40.4	44.7 43.2	46.9 44.6	48.7 45.9
25.9 ⁽³⁾ 25.4	29.0 ⁽³⁾ 28.5	32.3 ⁽³⁾ 32.4	35.9 ⁽³⁾ 38.3	41.2 ⁽³⁾ 42.4	46.8 ⁽³⁾ 46.6	52.1 ⁽³⁾ 49.6	57.1 ⁽³⁾ 51.7	59.2 ⁽³⁾ 52.2	60.6 ⁽³⁾ 52.3	
19.5 18.7	20.7 21.8	24.2 24.0	27.0 28.5	29.5 30.0	32.5	35.3				
19.1 18.5	21.0 20.0	22.6 22.5	24.6 25.0	27.0 29.0	33.0 30.5	36.0 37.2	41.5 41.0	46.0 44.5	46.2	
20.0 19.5	22.0 21.5	24.0 24.0	26.5 27.8	29.0 31.5	32.0 35.0	35.0 38.5				
21.0 20.0	23.0 22.5	25.0 25.0	26.8 28.5	30.0 32.3	33.8 35.0	36.8 37.5				
21.42 ⁽⁴⁾ 21.14	23.92 ⁽⁴⁾ 23.54	23.64 ⁽⁴⁾ 26.79	28.74 ⁽⁴⁾ 29.83	31.14 ⁽⁴⁾ 33.97	36.45 ⁽⁴⁾ 38.07	41.93 ⁽⁴⁾ 42.03	46.89 ⁽⁴⁾ 45.31	49.26 ⁽⁴⁾ 46.07	52.38 ⁽⁴⁾ 47.13	52.70 ⁽⁴⁾ 48.06

15-1. Definition of the Main Terms Used in the Hospital Statistics (WHO)

Occupation and level of education	Personnel to be included in the data	Occupation and level of education	Personnel to be included in the data
1. Hospitals	All establishments 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.	7. Private non-profit-making hospitals	All hospitals, whether subsidized by the government or not, operated on a non-profit-making basis by non-government bodies, such as religious missions, industrial enterprises, trusts, or philanthropic institutions.
2. General hospitals (principal)	Hospitals—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.)	8. Private profit-making hospitals	All private hospitals (or medical establishments with beds) operated on a profit-making basis.
3. Local or rural hospitals	Hospitals, usually in rural areas, permanently staffed by one or more physicians, which—in respect of their functions—are also general hospitals, but provide medical and nursing care of a more limited range than that provided by principal general hospitals.	9. Beds	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.
4. Medical and maternity centres with beds	Small units, also known as rural health centres, bedded dispensaries, rural maternity homes, etc., not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.), which offer inpatient accommodation and provide a limited range of medical and nursing care.	10. Admissions	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.
5. Specialized hospitals	Hospitals providing medical and nursing care primarily for only one discipline. This category does not include the specialized departments 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.	11. Discharges (including deaths)	The number of persons, living or dead, whose stay has terminated and whose departure has been officially recorded.
6. Government hospitals	All hospitals administered by a government authority at any level, whether central, intermediate, or local.	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.

15-2. Comparative Table of Medical Facilities

	Indonesia (1982)	Japan (1982)	Malaysia (1977)			Philippines (1982)	Singapore (1982)	Thailand (1982)
			Peninsular Malaysia	Sabah	Sarawak			
General Hosp.	v	v	v	v	v	v	v	v
General & Rural Hosp.	v							
Local or Rural Hosp.	v		v	v	v			v
Medical Center	v				v	v		v
Internal Medicine Hosp.						v		
Medical & Maternity Center						v		v
Maternity Hosp.	v					v	v	v
Infectious Diseases Hosp.	v	v				v	v	v
Chronic Diseases Hosp.							v	
Leprosy Hosp.	v	v	v		v			v
Tuberculosis Hosp.		v	v	v		v		v
Pediatrics Hosp.						v	v	v
Oto-Rhino-Laryngology Hosp.						v		
Dermato-Venereology Hosp.								v
Ophthalmology Hosp.	v						v	v
Orthopedics Hosp.	v					v		
Mental Hosp.	v	v	v	v	v	v	v	v
Cancer Hosp.	v							v
Establ. for Drug Addicts	v					v		v
Other Specialized Hosp.						v		v
Rural Hosp. & Nursing Homes			v					
Tropical Diseases Hosp.								v
Others						v	v	

Fig. 5. Annual Change of Number of Hospitals (Per 100 000)

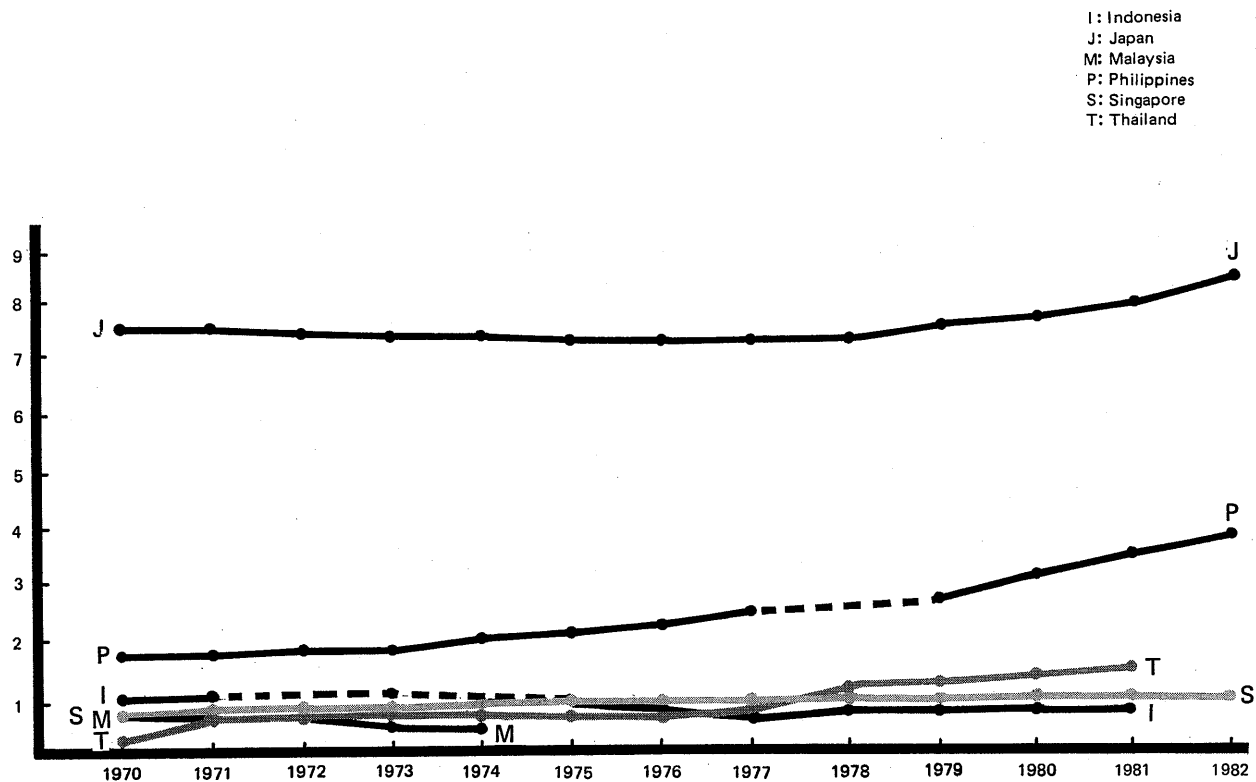
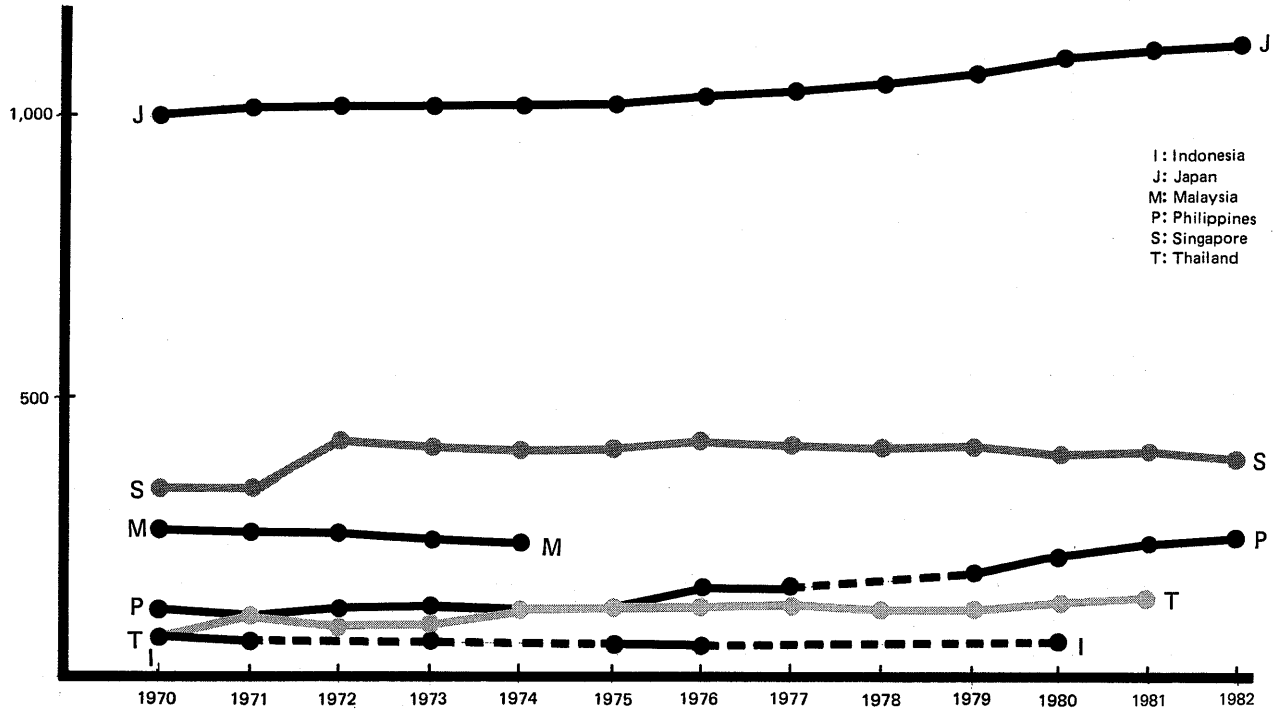


Fig. 6. Annual Change of Number of Beds (Per 100,000)



15-3. Hospital and Other Medical Establishments with Beds (1)

	Year	General Hospitals				General and Rural Hospitals				Local or Rural Hospitals			
		Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days
Indonesia	1980					642	75,766						
Japan	1980	8,003	895,494	6,919,198	303,980,016	. . .				. . .
	1981	8,167	941,960	7,119,899	317,065,559								
	1982	8,340	983,345										
Malaysia Peninsular Malaysia ⁽¹⁾	1973	28	12,289	398,299	4,827,490	. . .				34	7,340	165,288	1,838,505
Sabah	1977	3	1,086	34,456						11	1,002	40,653	
Sarawak	1977	7	1,491	58,277						5	268	12,673	
Philippines						. . .				. . .
Singapore	1982	14	5,061	203,664	1,283,788	. . .				. . .
Thailand	1981	80	14,014			. . .				552	43,416		

Source: Ministry of Health in each country

(1) World Health Statistics Annual, 1973-1980, WHO

	Year	Medical Centers				Internal Medicine Hospitals				Medical & Maternity Centers			
		Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days
Indonesia						. .				. .
Japan		. .				. .				. .
Malaysia		. .				. .				. .
Peninsular Malaysia													
Sabah													
Sarawak	1975	61	402										
Philippines	1982*	8	2,600							. .			
Singapore		. .				. .				. .
Thailand	1981	75	1,129			. .				. .

*Government hospitals only

15-3. Hospital and Other Medical Establishments with Beds (2)

	Year	Maternity Hospitals				Rural Hospital and Nursing Homes				Infectious Diseases Hospitals			
		Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days
Indonesia	1980	16	943			• •							
Japan	1980 1981 1982	• •				• •				20 19 17	18,218 17,094 16,385	7,447 6,420	134,470 111,838
Malaysia Peninsular Malaysia	1973	• •				151	4,813			• •			
Sabah						• •							
Sarawak													
Philippines						• •							
Singapore	1982	2	705	54,995	211,803	• •				2	576	10,291	117,356
Thailand	1981	2	406			• •				1	400		

	Year	Chronic Diseases Hospitals				Leprosy Hospitals				Tuberculosis Hospitals			
		Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days
Indonesia	1980	. .				33	3,745			13	933		
Japan	1980	. .				16	12,235	355	3,143,190	39	84,905	68,190	17,871,879
	1981					16	11,636	352	3,069,991	34	77,406	64,230	15,895,866
	1982					16	11,467			33	70,734		
Malaysia Peninsular Malaysia	1973	. .				2	3,565	475	1,301,225	3	566	1,763	106,945
Sabah	1977									2	146	525	
Sarawak	1977					1	400	47					
Philippines		. .				. .		
Singapore	1982	1	425	281	132,442	. .				. .
Thailand	1981	. .				3	2,670			2	688		

15-3. Hospital and Other Medical Establishments with Beds (3)

	Year	Pediatrics Hospitals				Oto-Rhino-Laryngology Hospitals				Dermato-Venereology Hospitals			
		Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days
Indonesia		. .				. .				. .
Japan		. .				. .				. .
Malaysia		. .				. .				. .
Peninsular Malaysia													
Sabah													
Sarawak													
Philippines										. .			
Singapore	1982	2	130	266	18,232	. .				. .
Thailand	1981	1	462			. .				1	43		

	Year	Ophthalmology Hospitals				Orthopedics Hospitals				Mental Hospitals			
		Establish- ments	Beds	Admis- sions or Discharges	Patient- Days	Establish- ments	Beds	Admis- sions or Discharges	Patient- Days	Establish- ments	Beds	Admis- sions or Discharges	Patient- Days
Indonesia	1980					1	150			39	6,398		
Japan	1980 1981 1982	. .				. .				977 988 997	308,554 314,065 320,068	216,119 222,075	114,065,924 116,365,595
Malaysia Peninsular Malaysia	1973	. .				. .				2	6,577	6,024	2,400,605
Sabah	1977									1	355	337	
Sarawak	1977									1	348	635	
Philippines	1981	. .				3	745			5	8,360		
Singapore	1982	1	20	330	2,823	. .				3	2,905	5,420	910,627
Thailand	1981	4	110			. .				4	720		

15-3. Hospital and Other Medical Establishments with Beds (4)

	Year	Cancer Hospitals				Establ. for Drug Addicts				Tropical Diseases Hospitals			
		Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days	Establish-ments	Beds	Admis-sions or Discharges	Patient-Days
Indonesia	1980	1	60			. .				. .
Japan		. .				. .				. .
Malaysia Peninsular Malaysia		. .				. .				. .
Sabah													
Sarawak													
Philippines		. .				. .				. .
Singapore		. .				. .				. .
Thailand	1981	1	146			2	416			1	170		

	Year	Other Specialized Hospitals				Others				Total			
		Establish- ments	Beds	Admis- sions or Discharges	Patient- Days	Establish- ments	Beds	Admis- sions or Discharges	Patient- Days	Establish- ments	Beds	Admis- sions or Discharges	Patient- Days
Indonesia	1980		.	.			.	.		1,208	98,543		
Japan	1980 1981 1982		.	.			.	.		9,055 9,224 9,403	1,319,406 1,362,161 1,401,999	7,073,673 7,276,762	394,350,536 408,633,489
Malaysia Peninsular Malaysia	1973									220	35,150	571,789	10,474,770
Sabah	1977		.	.			.	.		17	2,589	75,971	
Serawak	1977									14	2,507	71,632	
Philippines	1980	5	9,050				.	.		1,607	81,976		
Singapore	1982		.	.			.	.		25	9,822	275,247	2,677,071
Thailand	1981		.	.			.	.		729	64,844		

15-4. Hospital Utilization by Category of Hospitals (1)

	Year	All Hospitals					General Hospitals					
		Type	Population Per Bed	Beds Per 10,000 Pop.	Admissions Per 10,000 Pop.	Bed Occupancy Rate (%)	Type	Beds Per 10,000 Pop.	Admissions		Bed Occupancy Rate (%)	Aver. Length of Stay (Days)
									Per 10,000 Pop.	Per Bed		
Indonesia	1980	T	1,502	6.7			T	5.1			57.8	7.0
Japan	1980	T	88.50	113.0	605.7	83.5	T	76.5	592.5	7.73	81.4	38
	1981	T	86.51	115.6	618.5	84.2	T	80.0	605.2	7.56	81.5	39
	1982	T	84.67	118.1			T	82.9			82.0	40
Malaysia ⁽¹⁾ Peninsular Malaysia	1973	T	270	36.6	595.6	81.6	T	10.2	414.9	32.4	107.6	12.1
Sabah	1977	T	300	33.6	986.6		T	14.1	447.5	31.7		
Sarawak	1977	A	530	18.8	538.6		A	11.2	438.2	39.1		
Philippines												
Singapore	1982	T	252	39.7	113.5	75.8	T	20.5	824.0	40.2	71.1	6.3
Thailand	1981	T	732				T	2.9				

Source: Ministry of Health in each country

(1) World Health Statistics Annual, 1973-1980, Vol 2

Note: Category of Hospital

T = Total

A = Government hospital establishments

B = Private non-profit hospital establishments

	Year	Local or Rural Hospitals						Medical and Maternity Centers					
		Type	Beds Per 10,000 Pop.	Admissions		Beds Occupancy Rate (%)	Aver. Length of Stay (Days)	Type	Beds Per 10,000	Admissions		Bed Occupancy Rate (%)	Aver. Length of Stay (Days)
				Per 10,000 Pop.	Per Bed					Per 10,000 Pop.	Per Bed		
Indonesia													
Japan		. .						. .
Malaysia Peninsular Malaysia	1973	T	12.7					. .					
Sabah	1977	T	13.0	528.0	40.6								
Sarawak	1977	A	2.0	95.3	47.3								
Philippines		. .						. .
Singapore	1982	. .						. .
Thailand	1981	T	9.1										

15-4. Hospital Utilization by Category of Hospitals (2)

	Year	Type	Tuberculosis Hospitals					Mental Hospitals					
			Beds Per 10,000 Pop.	Admissions		Bed Occupancy Rate (%)	Aver Length of Stay (Days)	Type	Beds Per 10,000 Pop.	Admissions		Bed Occupancy Rate (%)	Aver. Length of Stay (Days)
				Per 10,000 Pop.	Per Bed					Per 10,000 Pop.	Per Bed		
Indonesia	1980	T	0.1					T	0.5				
Japan	1980	T	7.3	5.84	0.80	55.4	253	T	26.4	18.51	0.70	102.4	535
	1981	T	6.6	5.46	0.83	54.0	241	T	26.6	18.88	0.71	102.2	535
	1982	T	6.0			54.7	232	T	27.0			102.6	530
Malaysia Peninsular Malaysia	1973	T	0.6	1.8	3.1	51.8	60.7	A	6.9	6.3	0.9	100.0	398.5
Sabah	1977	T	1.9	6.8	3.6			T	4.6	4.4	0.9		
Sarawak	1977	T						A	2.6	4.8	1.8		
Philippines													
Singapore	1982							T	11.8	21.9	1.9	86.2	168.0
Thailand	1981	T	0.1					A	0.1				

	Year	Type	Maternity Hospitals				
			Beds Per 10,000 Pop.	Admissions		Bed Occupancy Rate (%)	Aver. Length of Stay (Days)
				Per 10,000 Pop.	Per Bed		
Indonesia	1980	T	0.1				
Japan			. .				
Malaysia Peninsular Malaysia			. .				
Sabah							
Sarawak							
Philippines							
Singapore	1982	T	2.9	222.5	78.0	83.4	3.9
Thailand	1981	B	0.1				

15-5. Number of Hospitals

		1970	1975	1976	1977	1978	1979	1980	1981	1982
Indonesia ⁽⁵⁾		1,164	1,115	1,138	1,132	1,169	1,181	1,208	1,239	
Japan ⁽¹⁾		7,974	8,294	8,379	8,470	8,580	8,800	9,055	9,224	9,403
Malaysia ⁽⁴⁾										
Peninsular Malaysia		64								
Sabah			15	15	17					
Sarawak		14	14	14	15	15				
Philippines ⁽³⁾	Total	650	927	1,046	1,108		1,452	2,020	1,711	
	Public	220	316	375	331		407	413	511	
	Private	430	611	671	777		1,045	1,607	1,200	
Singapore ⁽²⁾	Total	171	189	200	207	215	214	215	214	218
	Government	11	14	13	13	13	13	13	13	13
	Private	5	8	8	8	10	12	13	13	13
	Other Govern- ment Clinics	155	167	179	186	102	189	189	188	192
Thailand ⁽⁶⁾		98	281	294	317	512	542	636	654	

Source: (1) Data from Ministry of Health & Welfare, Japan

(2) Yearbook of Statistics, Singapore, 1982/83

(3) Hospital Listings of Ministry of Health (licensed only, 1979-1981)

(4) Statistics Yearbook for Asia and the Pacific 1975-1979, UN

(5) Data from Ministry of Health, Indonesia

(6) Data from Ministry of Health, Thailand

15-6 Number of Beds

		1970	1975	1976	1977	1978	1979	1980	1981	1982
Indonesia ⁽⁴⁾		86,022	83,696	82,945		94,631	96,739	98,543	102,374	
Japan ⁽¹⁾		1,062,653	1,164,098	1,184,737	1,207,003	1,232,779	1,269,081	1,319,406	1,362,161	1,401,999
Malaysia ⁽⁵⁾										
Peninsular Malaysia		27,927								
Sabah			2,233	2,309						
Sarawak		2,000	2,358	2,424	2,542	2,576				
Philippines ⁽³⁾	Total	40,289	55,323	75,630	72,144		76,294	81,976	88,070	
	Public	19,725	27,075	44,577	38,045	44,802	39,129	39,625	46,631	
	Private	20,564	28,248	31,053	34,099		37,165	42,351	41,439	
Singapore ⁽²⁾	Total		9,105	9,709	9,671	9,583	9,746	9,579	9,899	9,822
	Government	6,891	8,005	8,609	8,574	8,493	8,485	8,078	8,365	8,246
	Private		1,100	1,100	1,097	1,090	1,261	1,501	1,534	1,576
Thailand ⁽⁶⁾		25,619	52,652	56,998	59,482	56,992	60,969	71,718	71,966	

Source: (1) Data from Ministry of Health & Welfare, Japan

(2) Yearbook of Statistics, Singapore, 1982/83

(3) Hospital Listing of Ministry of Health (only licensed hospitals under MOH excluding Sanitaria and child health clinics in 1979-1981)

(4) Welfare Indicator, 1982

(5) Statistics Yearbook for Asia and the Pacific 1975-1979, UN

(6) Ministry of Health, Thailand

16-1. Definition of Medical Personnel (WHO)

Occupation and level of education	Personnel to be included in the data
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 practise 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 assistants	Dental non-operating auxiliaries who assist dentists and dental operating auxiliaries in their clinical work but who do not carry out any independent intra-oral procedures. These dental personnel usually have technical training either in formal courses or by apprenticeship.

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

Occupation and level of education	Personnel to be included in the data
14. Professional Nurses 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, paediatrics, 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 technicians	Auxiliary technical laboratory personnel working under the supervision of a professional laboratory technologist or technician. These auxiliary personnel do not have the full training and theoretical knowledge of the professional.

Occupation and level of education	Personnel to be included in the data
20. Medical Physicists High (university) level	All graduates of a university or faculty of natural science with qualifications 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 radiological technicians according to their field of 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.
23. Sanitary engineers High (university) level	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 water supply, wastes disposal, and air quality control and the planning and administration of environmental health programmes.
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.

Occupation and level of education	Personnel to be included in the data	Occupation and level of education	Personnel to be included in the data
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).	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.
27. Other technical personnel Examples: Cardiology technicians Encephalographers Opticians Orthopaedic technicians Hearing aid technicians Health statistical technicians Medical record technicians	Technical personnel in the health field not classifiable under previous items.	29. Practitioners of traditional medicine/midwifery Examples: Herb doctors Ayurvedic doctors Lay medical practitioners Medicine men Acupuncturists Traditional birth attendants	

16-2. Comparative Table of Medical Personnel

	Indonesia (1982)	Japan (1982)	Malaysia (1977)			Philippines (1982)	Singapore (1982)	Thailand (1982)
			Peninsular Malaysia	Sabah	Sarawak			
Physicians	v	v	v	v	v	v	v	v
Medical assistants			v		v			v
Multipurpose health auxiliaries				v	v			v
Dentists/Dental surgeons	v	v	v	v	v	v	v	v
Dental operating auxiliaries	v	v	v		v		v	v
Dental non-operating auxiliaries	v			v	v		v	v
Pharmacists/Chemists	v	v	v	v	v	v	v	v
Pharmaceutical assistants	v		v	v	v		v	v
Veterinarians/Veterinary surgeons		v	v		v	v	v	v
Animal health assistants					v		v	v
Professional midwives	v	v	v		v	v	v	v
Assistant midwives/Auxiliary midwives	v		v					v
Auxiliary nurse-midwives			v					v
Professional nurses	v	v	v		v	v	v	v
Assistant nurses/Auxiliary nurses	v	v	v	v	v	v	v	v
Nursing and midwifery aids	v			v		v		v
Physiotherapists/Physical therapists	v		v	v	v	v	v	v
Medical laboratory technicians	v		v	v	v	v	v	v
Assistant medical laboratory technicians	v		v	v	v	v	v	v
Medical physicist			v				v	
Medical radiological technicians	v			v	v	v	v	v
Assistant medical radiological technicians	v		v	v	v		v	v
Sanitarians			v	v	v	v	v	v
Auxiliary sanitarians			v	v			v	v
Sanitary engineers			v		v	v	v	v
Other scientific or professional personnel	v		v	v	v	v	v	v
Other technical personnel					v		v	v
Other health auxiliaries and aides	v		v	v	v		v	v
Practitioners of traditional medicine/Midwifery								v
Dental nurses			v	v	v		v	
Nurses including nurse-midwives				v			v	

Fig. 7. Annual Change of Number of Physicians (Per 100,000)

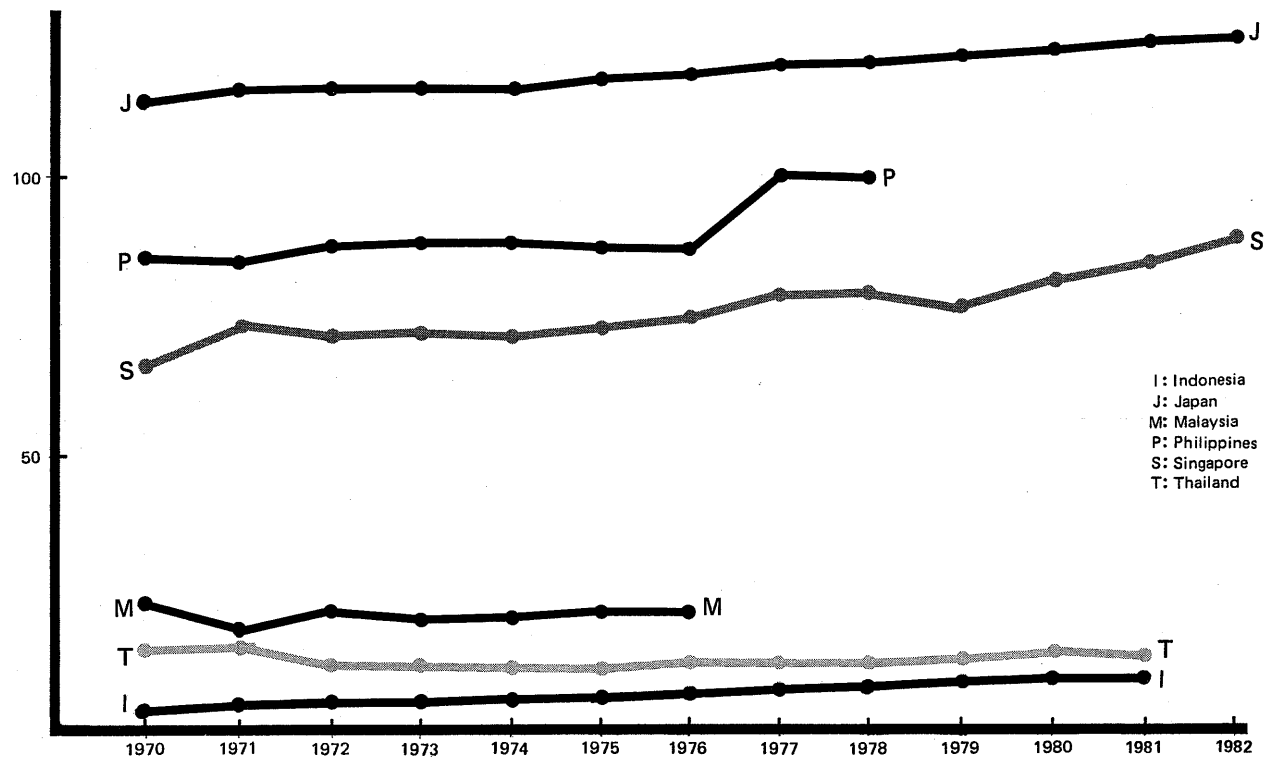
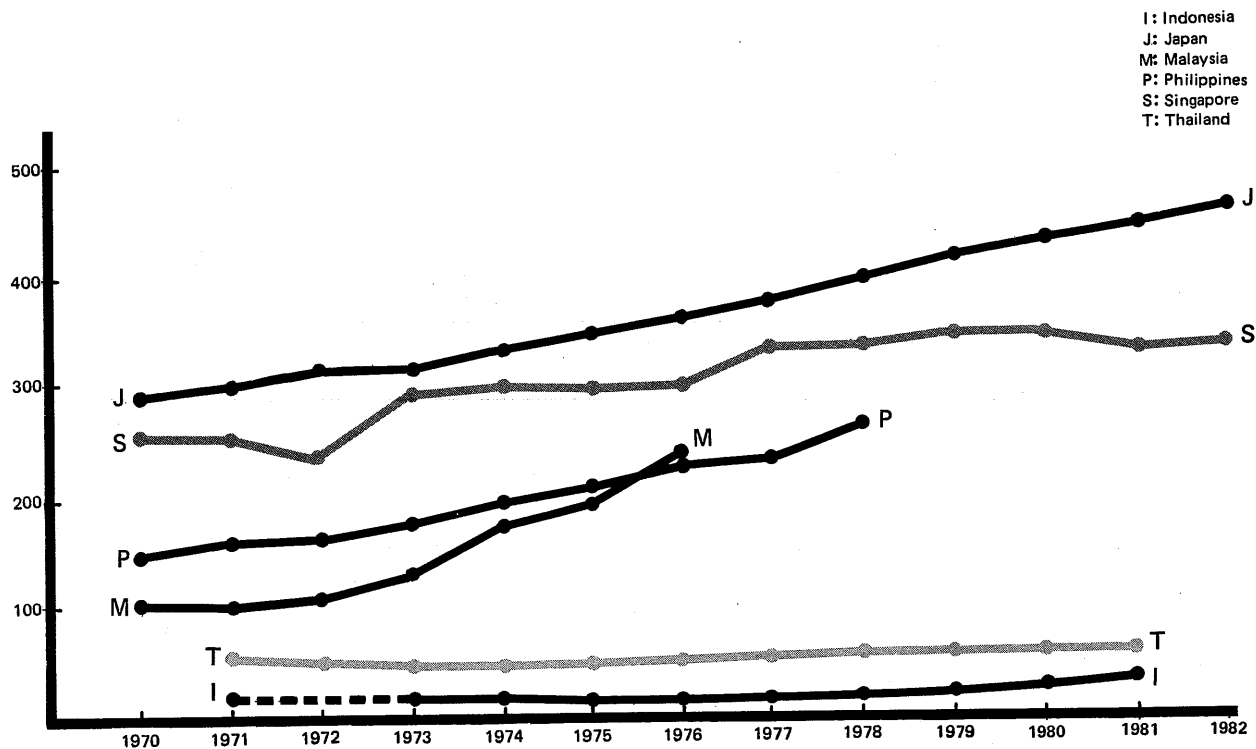


Fig. 8. Annual Change of Number of Nurses and Midwives (Per 100,000)



16-3. Medical and Allied Health Personnel (1)

		Physicians	Medical Assistants	Multi-purpose Health Auxiliaries	Dentists/ Dental Surgeons	Dental Operating Auxiliaries	Dental Non-operating Auxiliaries	Pharmacists/ Chemists	Pharmaceutical Assistants
Indonesia	1977 1978	9,805 10,456	. .	. .			1,027 1,277		16,222 17,953
Japan	1980 1981 1982	156,235 162,882 167,952	. .	. .	53,602 56,841 58,362	22,008 24,285 26,658	. .	116,056 120,444 124,390	. .
Malaysia	1977	1,438 G		. .			. .
Peninsular Malaysia (1)									
Sabah	1977	110	. .			. .
Sarawak	1977								
Philippines	1982	7,378	. .	91,408	8,578	1,386	2,074		. .
Singapore (1)	1982	2,359	. .	. .	530	234	47 G	373	228
Thailand	1981	6,931	42	249,250	1,132	323	310	2,680	456

Source: Ministry of Health in each country

(1) World Health Statistics Annual, 1973-1980, Vol. 2

Note G: Personnel in government services

†: Entry used for calculation of population/nursing and midwifery personnel ratios

		Veterinarians/ Veterinary Surgeons	Animal Health Assist.	Professional Midwives	Assistant Midwives/ Auxiliary Midwives	Auxiliary Nurse- Midwives	Professional Nurses	Assistant Nurses/ Auxiliary Nurses	Nursing and Midwives Aids
Indonesia	1977 1978			717 776	2,148		791 946	18,468	31,941
Japan	1980 1981 1982	25,175 25,667 25,548		25,867 25,538 25,416			248,165 266,745 279,186	239,004 251,352 261,785	
Malaysia	1977							5,065 G	. .
Peninsular Malaysia			. .						
Sabah	1977				. .	. .		888 †	
Serawak	1977							353 G	. .
Philippines	1982		. .	62,000	. .	. .	135,711		4,482
Singapore	1982	13 G	115 G	772 †			5,124 †	2,410 †	. .
Thailand	1981	415	116	9,018	8,577	7,363	10,581	10,976	1,017

16-3. Medical and Allied Health Personnel (2)

	Year	Physio- therapists/ Physical therapists	Medical Laboratory Technicians	Assistant Medical Laboratory Technicians	Medical Physicists	Medical Radiological Technicians	Assistant Medical Radiological Technicians	Sanitary Engineers	Saniterians
Indonesia	1981	162	21	554	. .	64	78	1,103	3,066
	1983	230	46	1,210		44	196	1,969	5,105
Japan	1981		33,689	2,085	3,501	17,262	3,934		
Malaysia	1976								
Peninsular Malaysia		48 G	425 G	537 G	4 G	. .		9 G	
Sabah		1	36		. .	7			
Sarawak	1976	4 G	59 G	81 G		6			
Philippines	1982		2,039		. .	294	. .	105	3,000
Singapore	1982	32 G	189 G	103 G	5 G	101 G	20 G	129 G	217 G
Thailand	1981	256	432	415	103	118	368	48	215

	Year	Auxiliary Sanitarians	Other Scientific or Professional Personnel	Other Technical Personnel	Other Health Auxiliaries and Aids	Practitioners of Traditional Medicine/Midwifery	Dental Nurses	Nurses Including Nurse-midwives	Orthopaedic Technicians
Indonesia				. .		. .	. .	. .	. .
Japan		. .	. .	. .	. .	. .	. .	. .	. .
Malaysia								. .	. .
Peninsular Malaysia				. .					
Sabah						. .			
Sarawak								. .	. .
Philippines	1982	. .	621	. .	. .	. .	. .	. .	. .
Singapore	1982	358 G	54 G	40 G	92 G	. .	342	7,534	. .
Thailand	1981	7,788					. .	. .	. .

16-3. Medical and Allied Health Personnel (3)

	Year	Malaria Field Officers	Medical Social Technicians	Health Statistics Technicians	Medical Statistician	Dental Hygienists	Trained or Rural Midwives	Traditional Birth Attendants	Laboratory Aids
Indonesia		. .	. .	. .	. .	. .	. .	. .	. .
Japan	1980 1981 1982	. .	. .	. .	. .	20,501 23,073 24,836	. .	. .	. .
Malaysia		. .	. .	. .		
Peninsular Malaysia									
Sabah					. .	. .	. .	. .	. .
Sarawak		. .	. .	. .		
Philippines		. .	. .	. .	. .	. .		20,365	
Singapore	1982	. .	. .			. .	. .	. .	. .
Thailand	1982	. .	. .	. .					. .

	Year	Sanitary Inspectors	Medical Social Workers	Dental Practitioners	Veterinary Assistants	Nurse- midwives	Dental Technicians	Dispensers	Assistant Nurse- midwives
Indonesia	1978 1979	. .	. .	. .	. .	758 893	. .	. .	. .
Japan		. .	. .	. .	. .	. .	. .	. .	. .
Malaysia									
Peninsular Malaysia									
Sabah		. .	. .	. .	. .	. .			. .
Sarawak									
Philippines	1982	1,887		. .	. .	. .		. .	. .
Singapore	1982	. .	36 G	530	13 G	. .	47 G	205 G	. .
Thailand		. .	. .	. .				. .	. .

16-3. Medical and Allied Health Personnel (4)

	Year	Nurses	Occupational Therapists	Dietitians	Radio Graphers	Nursing Auxiliaries	X-ray Assistant Technicians	Health Inspectors	Assistant Health Inspectors
Indonesia	1978 1979		• •	1,527 2,027	• •	33,237 35,577		• •	• •
Japan	1980 1981 1982	487,169 518,097 540,971	• •	• •	• •	• •	• •	• •	• •
Malaysia Peninsular Malaysia	1976	4,169 G†		9 G	190 G	• •	7 G	423 G	538 G
Sabah	1976	• •	• •	2	5	674	• •	42	• •
Sarawak	1976	319	4 G	3 G	24 G	• •	• •		
Philippines	1982	• •		553	• •		• •	• •	• •
Singapore	1982		22 G	12 G	101 G	• •	• •	217 G	358
Thailand			• •	• •	• •			• •	• •

	Year	Biochemists	Health Educators	Midwives	Microscopists	Health Assistants	Entomologists	Dental Surgery Assistants	Nutritionists	Darkroom Assistants
Indonesia	1977	• •	• •	12,642	• •	• •	• •	• •	194	• •
Japan		• •	• •	• •	• •	• •	• •	• •	• •	• •
Malaysia	1976	24 G	6 G		• •	• •	• •	• •	• •	• •
Peninsular Malaysia										
Sabah	1976	1	• •	• •	31	53	1	• •		
Sarawak	1976	• •		141		• •		28 G		17 G
Philippines	1982	• •	68		• •	• •	• •	• •		• •
Singapore	1982	8 G	3 G		• •	• •		• •	1 G	• •
Thailand					• •	• •		• •		• •

16-4. Population / Health Personnel Ratios

	Year	Physicians per 10,000 Population	Population per Physicians	Dentists per 10,000 Population	Population per Dentists	Pharma- cists per 10,000 Population	Population per Phar- macists	Medical Assistants per 10,000 Population	Population per Medical Assistants	Nursing Personnels per 10,000 Population	Population per Nursing Personnels	Nursing and Midwifery Personnels per 10,000 Population	Population per Nursing and Midwifery Personnels
Indonesia	1980	0.9	11,448	0.1	120,065	0.2	44,820	• •	• •	2.5	3,947	3.6	2,769
Japan	1980	13.4	749	4.6	2,183	9.9	1,007	• •	• •	41.7	240	43.9	228
	1981	13.8	724	4.8	2,075	10.2	978			44.0	227	46.2	216
	1982	14.2	707	4.9	2,033	10.5	954						
Malaysia Peninsular Malaysia	1977	1.37 G	7,302									11.9 G	841
Sabah	1977	1.43	7,000									• •	• •
Sarawak	1977											7.4 G	1,349
Philippines *	1982	1.45	6,880	0.2	51,484	0.1	100,720	• •	• •	1.8	5,594	3.6	2,743
Singapore	1982	9.5	1,048	2.1	4,664	1.5	6,627	• •	• •	30.5	328	33.4	299
Thailand	1981	1.5	6,851	0.2	41,950	0.6	17,719	0.01	1,130,666				

Source: Ministry of Health in each country

Note: *Ministry of Health manpower only

G: Personnel in government services

16-5. Number of Medical Personnel

Physicians

	1970	1975	1976	1977	1978	1979	1980	1981	1982
Indonesia	3,578	8,279	8,977	9,805 ⁽⁴⁾	10,456	11,681 ⁽⁶⁾	12,931 ⁽⁶⁾	15,400 ⁽⁶⁾	16,000 ⁽⁶⁾
Japan ⁽¹⁾	118,990	132,479	134,934	138,316	142,984	150,229	156,235	162,882	167,952
Malaysia									
Peninsular Malaysia	2,370	2,511 ⁽³⁾	2,659						
Sabah		102 ⁽²⁾	95						
Sarawak	80	131	135	158	150				
Philippines	31,515	37,276	38,490	47,801	49,110	6,839*	7,259*	7,378*	7,378*
Singapore	1,363	1,622	1,705	1,847	1,850	1,851 ⁽⁵⁾	1,976 ⁽⁵⁾	2,091 ⁽⁵⁾	2,225 ⁽⁵⁾
Thailand	5,407	5,005	5,210 ⁽⁴⁾	5,790	5,973	6,395	6,867	6,931	

Source: Statistical Yearbook for Asia and the Pacific 1975-1979, UN.

Note: * Ministry of Health manpower only

(1) Data from Ministry of Health & Welfare, Japan

(2) Statistical Handbook Sabah, 1975

(3) Statistical Handbook of Peninsular Malaysia, 1976

(4) World Health Statistics Annual, 1980, Vol. II, WHO.

(5) Yearbook of Statistics, Singapore, 1982/83

(6) Statistic Pocketbook of Indonesia (BPS)

16-5. Number of Medical Personnel
Dentists

	1970	1975	1976	1977	1978	1979	1980	1981	1982
Indonesia	452							1,233	1,292
Japan ⁽¹⁾	37,859	43,586	44,382	45,715	48,731	50,821	53,602	56,841	58,362
Malaysia	630	659 ⁽²⁾	959						
Peninsular Malaysia									
Sabah	15	9	10						
Sarawak	131	104	116	122	122				
Philippines	12,174	13,096	13,370	13,694	14,181	777 *	1,029 *	1,090 *	984 *
Singapore	398	419	433	464	476	494 ⁽³⁾	485 ⁽³⁾	501 ⁽³⁾	530 ⁽³⁾
Thailand	683	652	744	816	1,025	1,122	1,169	1,132	

Source: Statistical Yearbook for Asia and the Pacific, 1975-1979, UN.

(1) Data from Ministry of Health & Welfare, Japan

(2) Statistical Handbook of Peninsular Malaysia, 1976

(3) Yearbook of Statistics, Singapore, 1982/83

Note: * Ministry of Health manpower only

16-5. Number of Medical Personnel
Pharmacists

	1970	1975	1976	1977	1978	1979	1980	1981	1982
Indonesia⁽¹⁾	1,486	1,825	1,980		2,475	2,723	3,013	3,303	
Japan⁽²⁾	79,393	94,362	97,474	100,897	104,693	110,774	116,056	120,444	124,390
Malaysia									
Peninsular Malaysia									
Sabah		10	15						
Sarawak									
Philippines	19,076	20,838	21,092	21,546	22,186	723*	518*	539*	504*
Singapore	245	288	298	318	330	351 ⁽²⁾	368 ⁽²⁾	358 ⁽²⁾	373 ⁽²⁾
Thailand	1,407	1,913	2,074	2,236	1,160	1,266	2,650	2,680	

Source: Data from Ministry of Health in each country

(1) Including Practitioners, Assistant Pharmacists and First Class Dispensers

(2) Yearbook of Statistics, Singapore, 1982/83

Note: * Ministry of Health manpower only

16-5. Number of Medical Personnel

Midwives

	1970	1975	1976	1977	1978	1979	1980	1981	1982
Indonesia	3,752	10,720	12,642	13,799	14,921	14,921 ⁽¹⁾	15,770 ⁽¹⁾	40,616 ⁽¹⁾ **	
Japan ⁽¹⁾	28,087	26,742	26,804	26,618	26,493	26,267	25,867	25,538	25,416
Malaysia Peninsular Malaysia	3,509	9,555 ⁽²⁾	10,353						
Sabah		195 ⁽³⁾							
Sarawak	589	871	926	1,034	1,140				
Philippines	16,082	26,680	31,958	27,430	30,295	8,698*	9,329*	9,470*	9,428*
Singapore ⁽⁴⁾	1,058	930	925	863	857	807	779	766	722
Thailand	4,203	6,335	7,304	7,436	7,915	8,677	8,669	8,577	

Source: Data from Ministry of Health in each country
 (1) Welfare Indicator, Indonesia, 1982
 (2) Statistical Handbook of Peninsular Malaysia, 1976
 (3) Statistical Handbook, Sabah, 1975
 (4) Yearbook of Statistics, Singapore, 1982/83

Note: * Ministry of Health manpower only
 ** Combined data of midwives and nurses

16-5. Number of Medical Personnel

Nurses

	1970	1975	1976	1977	1978	1979	1980	1981	1982
Indonesia ⁽¹⁾		9,856	11,284	13,912	16,140	17,084 ⁽²⁾	37,693 ⁽²⁾ **	40,616 ⁽²⁾ **	
Japan ⁽²⁾	273,572	361,604	382,459	404,156	431,911	458,362	487,169	518,097	540,971
Malaysia Peninsular Malaysia ⁽³⁾	7,279 ⁽⁷⁾	13,352	25,805						
Sabah		970 ⁽⁸⁾							
Sarawak ⁽⁴⁾	559	1,074	1,143	1,168	1,206				
Philippines	38,918	64,155	71,585	80,781	94,411	8,523 *	9,605 *	9,644 *	9,075 *
Singapore ⁽⁵⁾	4,304	5,767	5,960	6,814	7,069	7,405	7,545	7,240	7,534
Thailand ⁽⁶⁾	15,387	18,993	21,004	22,667	16,515	17,211	18,483	19,599	

Source: Data from Ministry of Health in each country

(1) Nurses and similar personnel

(2) Welfare Indicator, Indonesia, 1982

(3) Nurses and assistant nurses

(4) Trained nurses, assistant nurses and hospital assistant

(5) Yearbook of Statistics, Singapore, 1982/83

(6) Public Health Statistics, 1972, Ministry of Public Health, Bangkok

(7) Statistical Handbook of Peninsular Malaysia, 1976

(8) Statistical Handbook Sabah, 1975

Note: * Ministry of Health manpower only

** Combined data of nurses and midwives

17-1. Situation of Medical Schools

	Academic Year	Number of Medical Schools	Duration of Studies	Total Enrolment	Admissions	Graduates
INDONESIA ⁽¹⁾	1981/1982	13	7 Years ^(a)	N: 15,725 ^(b) F: 46	N: 1,632 F: 26	1,296
JAPAN	1982/1983	79	6 Years	. .	8,260	12,833
MALAYSIA	1975/1976	2	5 or 6 Years ^(c)	N: 808	N: 205	N: 113
PHILIPPINES	1975/1976 1983 ⁽²⁾	9 ^(d) 23	5 Years	. . 3,640*	. .	1700 1852-1981
SINGAPORE	1982/1983 ⁽³⁾	1	5 Years	N: 718 F: 109	N: 163 F: 37	N: 119 F: 8
THAILAND	1976/1977	7	4 Years	. .	. .	430

Source: World Directory of Medical Schools 1979, WHO

Note: (a) 6 Years at the University of Indonesia Medical Faculty, Jakarta

(b) N: Nations, F: Foreigners

(c) 5 Years at the University of Malaya; 6 Years at the National University of Malaysia (including a 1-year premedical course)

(d) 6 new schools opened in the academic year 1977/1978.

(1) Consorhon Medical Service, May 1982

(2) Association of Philippine Medical Colleges

* Only Freshman enrolment for year 1982-1983

(3) National University of Singapore

APPENDIX
List of Organizations Related to Health Statistics

WHO

WHO Regional Office for the Western Pacific

United Nations Avenue
P.O. Box 2932, 12115, Manila
The Philippines

WHO Regional Office for South East Asia

World Health House, New Delhi, 1.10.002, India

INDONESIA

Monitoring & Reporting Division
Planning Bureau, Ministry of Health
(Departmen Kesehatan)

Jalan Prapatan 10, Jakarta

Directorate General of Communicable Diseases Control,
Ministry of Health

Jalan Percetakan Negara I
P.O. Box 223, Jakarta

Central Bureau of Statistics

Jalan Dr. Sutomo No. 8
P.O. Box 3, Jakarta

JAPAN

Communicable Diseases Surveillance Division
Public Health Bureau, Ministry of Health and Welfare
Health and Welfare Statistics Department
Ministry of Health and Welfare

2-2, Kasumigaseki 1-chome, Chiyoda-ku, Tokyo 100

42, Ichigaya-Honmuracho, Shinjuku-ku, Tokyo 162

MALAYSIA

Health Information & Statistics
Ministry of Health (Kementarian Kesihatan)

Jalan Cenderasari, Kuala Lumpur

Epidemiology Unit, Ministry of Health
Department of Statistics

Jalan Cenderasari, Kuala Lumpur
Kuala Lumpur
Kota Kinabalu, Sabah
Kuching, Sarawak

PHILIPPINES

Disease Intelligence Center, Ministry of Health
National Economic and Development Authority

San Lazaro Compound, Rizal Avenue, Manila
P.O. Box 1116, Manila

SINGAPORE

Research & Evaluation Section, Ministry of Health

Cuppage Center, 55 Cuppage Road
Singapore 0922

Committee on Epidemic Diseases, General Hospital
Ministry of Health

Outram Road, Singapore 0316

Department of Statistics

P.O. Box 3010, Singapore 1

THAILAND

Division of Health Statistics
Ministry of Public Health

Devaves Palace, Samsen Road
Bangkok 10200

Division of Epidemiology
Ministry of Public Health

Devaves Palace, Samsen Road
Bangkok 10200

National Statistical Office
Office for the Prime Minister

Bangkok Metropolis

Part II

THE OUTLINE OF HEALTH STATISTICS
IN
SEAMIC COUNTRIES AND JAPAN

Sources of Medical and Health Statistics in Indonesia

I. POPULATION AND VITAL STATISTICS

1. *Background Information*

The main sources of information on population and vital statistics of Indonesia are from censuses and vital registration of birth and deaths.

Indonesia conducted its first population census in 1961 followed by ten-year interval censuses in 1971 and 1980. The whole process of censuses were carried out under the supervision of the Central Bureau of Statistics.

Based on the Presidential Decree No.52/1977 on population registration, all occurrences of births and deaths within Indonesia are required to be reported within stipulated periods. The registration system is not yet operating as good as it should be.

2. *Purpose*

The main purpose of conducting these censuses is to obtain updated information on the population in the country. The information is used for planning and for evaluating programmes such as housing, education, health, etc.

In the case of vital registration, the aim is to collect detailed information on births and deaths including the underlying causes of mortality. These data are essential for analysing the changes happened in the society.

3. *Coverage*

Census covers the whole population of Indonesia, included non-diplomatic foreigners, crew of Indonesian ships and tramps.

4. Contents

The contents of the 1980 census form, could be classified under the following broad categories:

- a. Demographic characteristics
- b. Economic characteristics and employments
- c. Houses and households
- d. Language and dialect spoken at home
- e. Religion.

Forms for birth registration include identification of the baby (name, sex, date of birth, location of birth and attendant), identification of the mother (name, address, age, citizenship) and identification of the father (name, age, address, citizenship).

Death registration include name, address, age, date of birth, citizenship, religion, marital status, employment status, and cause of death.

5. Data Collection Procedures

The census field workers visit the people at their place of residence on the census day. The houses are numbered, households identified and listed. Generally each head of the family is interviewed. The whole process of enumeration and data collection is carried out under the supervision of Central Bureau of Statistics.

The registration of births and deaths is done at the village level and sent to the central level through a long process, namely, district, regional and provincial level. The collection of vital statistics information is done under supervision of the Ministry of Home Affairs.

6. Analysis

The Central Bureau of Statistics is responsible for the tabulation and publication of the census results.

II. HEALTH SERVICES UTILIZATION STATISTICS

1. Background Information

In general health facilities which provide direct services to the community can be divided into two main categories, namely, the Health Centres and the Hospital. The reporting and recording system of these two kinds of facilities are regulated by Decrees of the Ministry of Health, No.651 of the year 1972 concerning Hospitals and No.63 of the year 1981 concerning the Health Centres.

In fact, these regulations are also valid for facilities of the private sectors, but up to now they only apply to government facilities.

2. Purpose

One of the objectives is to monitor and make a short-term appraisal of the performance of the various services within the Department of Health as well as the private sectors. The statistical information is also utilized in conjunction with other data for purposes of planning and evaluation.

3. Coverage

Statistics collected from the hospitals cover all activities of government and private hospitals. Report from the Health Centres covers only government facilities. Private practices or clinics have not yet been covered.

4. Contents

The hospital reporting system consists of four main parts, i.e:

- a. Hospital activities report containing information on patient admissions, bed occupancy, length of stay and discharges by type of class.
- b. Morbidity report of inpatients who been treated in the hospital.
- c. Morbidity report of outpatients who been covered by its outpatients departments.
- d. Inventory report.

The Health Centre Reporting and Recording System covers report on number and morbidity of patients, drugs, activities of Health Centre such as school health, public health nursing, health education, etc.

5. Data Collection Procedure

The data are presented in prescribed forms from hospital and Health Centres and submitted to the Directorate Generals, Medical Care and Community Health.

6. Tabulation and Publication

The data are collected and published annually in the form of special reports.

III. MORBIDITY STATISTICS

1. Background Information

Communicable diseases constitute one of the main health problems in Indonesia because of its high morbidity and mortality rate. It should therefore be handled in a direct and systematic way. For this purpose a quick and reliable information is necessary.

The reporting and recording from the health centres and hospitals include the morbidity data of patients, while epidemic diseases are reported directly to the Directorate General of Communicable Disease Control. Non epidemic diseases are reported through reporting and recording system of the health centres and hospitals to the Directorates General of Community Health and Medical Care once a month.

2. Purpose

Collection of information concerning the number of patients of all kinds of diseases (communicable and non-communicable) will be used for planning, monitoring, evaluation and control.

3. Coverage

The reports only cover data from Health Centres and Hospitals, while reports concerning diseases which treated by private practice or private clinics are not yet included.

Nevertheless, we already have information from Health Centres and hospitals throughout Indonesia, it can therefore be considered as representative of the situation in Indonesia.

4. Contents

Epidemic diseases are reported once a week, according to location. This report includes the number of patients and the number of deaths.

Other diseases are reported through the reporting and recording system, according to the age, type of diseases (ICD-IX) and number of cases once a month.

5. Data Collection Procedures

For epidemic diseases the completed forms are sent directly to the Directorate General of Communicable Disease Control. For other diseases, forms from the health centre and hospital are sent to the Directorates General of Community Health and Medical Care with a copy to the Provincial Health Office.

6. Analysis

From the reports the kinds of main diseases as well as the pattern of morbidity can be analyzed. The results are published yearly through epidemiological news, health survey reports, etc.

(Bureau of Planning, Ministry of Health)

Health Statistical Information System in Malaysia

1. Introduction

- 1.1. With rapid development taking place in Malaysia for the past two decades, Malaysian Government has recognized the importance of effective and efficient operation which can be achieved through appropriate action at corrective intervention based on informed and considered decisions depending on accurate and timely information.
- 1.2. In line with the New Economic Policy (NEP) of reducing poverty by raising income levels and increasing employment, and restructuring of society to eliminate the identification of groups with economic function, Ministry of Health (MOH) had also identified problem priorities; programme specific objectives and appropriate strategies to contribute towards a standard of health which enable people to lead an economically and socially productive life.
- 1.3. With a view to assist in overall health programme planning management, modern management techniques have been developed and used to improve on its performance at all levels leading to a growing need for valid and relevant information base.

2. Existing Health Statistical Information System Service

- 2.1. At present, the MOH Information System is still 'Statistical' in nature. Quite a lot of statistical information has been collected, but the rigidity and small amount of relevant data limits the value of the system. The information collected are in a summarized form, detailing the experience of workload over a definite period of time. The reports are compiled on a medium administrative level, and national figures are combination of district or state level. The information are used mainly for management of health services rather than for patient management.

- 2.2. There is duplication of data collection and the capacity to handle data is rather limited. The system is quite simple and does not require much expertise. But some of the specific system can be very well developed to meet specific needs. The rigidity of the system does not allow for changing requirement. It is a manual-based system.

3. *Types of Health and Health Related Information Used to Support the Management Functions of MOH*

The type of information collected and utilized would be categorised into :

- 3.1. Social and Social-Economic Development Status Information. These information are provided by Department of Statistics, the Prime Minister Department and The Registrar-General of Births and Deaths, Ministry of Home Affairs.

- * Population distribution by geographical division
- * Population by sex and age group
- * Population composition by ethnicity
- * Population growth rate
- * Crude birth rate
- * Crude death rate
- * Neo-natal death rate
- * Post-neonatal death rate
- * Toddler mortality rate
- * Maternal mortality rate
- * Gross reproduction rate
- * Net reproduction rate
- * Life expectancy by specific age group
- * Average weight of baby at birth
- * Dependency ratios.

- 3.2. Other Socio-Economic Development Status Information

- | | | |
|--|---|-----------------------|
| * Literary level by sex and age group | } | Ministry of Education |
| * School enrolment data by education level | | |
| * Gross national product | } | Ministry of Finance |
| * Gross domestic product | | |
| * Health budget as percentage of national budget | | |
| * Government health expenditure (per capita) | | |

* Industrial absenteeism rate from work due to illness or injury

* Percentage of labour force and its distribution

} Ministry of Labour and Manpower

Other related socio-economic information e.g. standard of living, housing, nutrition, employment, safety environment problems and social welfare, etc. required by MOH in the formulation of Five-Year Plan are also provided by other ministries/agencies like Economic Planning Unit; National Family Planning Board of the Prime Minister Department; Ministry of Social Welfare; Ministry of Environment, Science and Technology; etc.

These are useful information which form part of the strategy for the development of a comprehensive health service system in the country.

4. Information Related to Specific Health Problem

The information classified under this section is useful to the planners and implementators of the specific health programmes as a feedback to evaluate the performance, acceptance and effectiveness of the programme over a period of time or comparison over place. The information are specific to the each programme in terms of problem identification and performance assessment.

4.1. Communicable Diseases

A specific list of communicable diseases are compiled every year by geographical distribution, age, sex, etc. Absolute number, prevalence, incidence and mortality rates of the diseases are provided by MOH over time. These diseases include cholera, typhoid, food poisoning, dysentery, T.B., leprosy, diphtheria, poliomyelitis, measles, dengue fever/dengue haemorrhagic fever, infectious hepatitis, malaria, yaws, filariasis, sexually transmitted diseases, etc.

4.2 Principal Causes of outpatient Attendances and Admissions to Government Hospitals and Their Rates

In order to monitor the changing pattern of diseases over time, these information are compiled annually from hospital statistics. Though only absolute numbers and percentage distribution are provided, attempts have been made to relate diseases pattern to other demographic variables like age, sex and geographical distribution.

4.3. Hospital Utilization Indices

These include standard measures like bed occupancy rate; mean length of stay; outpatient/admission ratio. Similarly attempts have been made to analyse the data by clinical specialties/disciplines and type of medical care establishments.

4.4. Information on Specific Diseases

Diseases which are accounting for high morbidity or mortality pattern of the population at risk are being monitored at the national level. More detailed analyses are being done on these in terms of type, sex, age and other characteristics. Examples are cancer, accidents, heart and cardio-vascular disease, hypertension, nutritional deficiency, metabolic diseases, diabetes mellitus, etc.

4.5. Information Collected through Special Studies/Surveys

Sometimes through surveys or studies, we also collect information related to specific programmes. Examples are Dental Epidemiological Study for school children (1970); Dental Epidemiological Study for adults (1974), Peninsular Malaysia; Risk Approach Study in identifying problems related to high risk mothers for formulation of intervention strategy, etc.

Of course, this is not the complete list of specific programmes that generate information for own use, it includes other programmes like general sanitation, school health services, family planning services, occupational health, health education, food quality control and many others.

5. Health Service Improvement Information

5.1 Health Facilities—Two aspects would be distinguished. One relates to existing infrastructure which are providing medical, health and dental care services; the other relates to the development projects on new infrastructure under construction. As long as service infrastructure are concerned, they would be categorised into

- | | |
|---------|---------------------------------------|
| Medical | Special Hospital |
| | General Hospital |
| | District Hospital with Specialists |
| | District Hospital without Specialists |
| | Urban Polyclinics |
| Health | Health Centres |
| | Maternal and Child Health Centres |
| | Community Nurse Clinics |
| | Midwife Clinic |
| | Static Dispensaires |
| | Mobil Dispensaires |
| | Mobile Health Team |
| Dental | Urban Dental Clinics |

Hospital Dental Clinics
Health Centre Dental Clinics
School Dental Clinics
School Dental Centres
Mobile Dental Squads.

Information related to facilities are generally expressed in terms of absolute number and ratios related to population serve. This includes

- * Acute Hospital beds per 1000 population by geographical distribution
- * Health Centre/rural population ratio
- * Midwife Clinics/rural population ratio
- * Dental Units/population ratio

On development projects, a monitoring system was established to assess the physical progress on construction on a quarterly basis.

5.2. Finance—The financing for the activities of MOH is divided into two components, i.e. the operating and development budget. Both operating and development budget and expenditure are available by specific health programmes.

5.3 Health Manpower—The following type of health and health-related manpower have been compiled on an annual basis and manpower /population ratios are tabulated by region; between public and private sectors for comparison purposes.

- * Doctor
- * Dentist
- * Pharmacist
- * Nurse
- * Assistant Nurse
- * Midwife (Division II)
- * Community Health Nurse/Midwife
- * Dental Nurse
- * Public Health Inspector
- * Medical Lab. Technologist
- * Radiographer
- * Pharmacist Assistant
- * Hospital Assistant

5.4. Health Manpower Training and Development

At present, the following types of manpower are being trained in local training institutions with a view to further develop adequate professional and paramedical personnel to meet future manpower requirements of the health section.

A listing on the type of manpower trained, number of training institutions and the annual intake capacity are provided each year.

— Types of manpower trained by MOH:

- * Nurse
- * Assistant Nurse
- * Community Health Nurse
- * Midwife (Division II)
- * Midwife
- * Hospital Assistant
- * Junior Hospital Assistant
- * Radiographer
- * Pharmacist Assistant
- * Pharmacy Lab. Assistant
- * Physiotherapist
- * Medical Lab. Technologist
- * Assistant Medical Lab. Technologist
- * Junior Lab. Technician
- * Public Health Inspector
- * Public Health Overseer
- * Anti-malarial Inspector
- * Dental Nurse
- * Dental Technician
- * Dental Surgeons Assistant
- * Health Education Officer

— Types of manpower trained by Ministry of Education :

- * Doctor
- * Dentist
- * Pharmacist

5.5 Information Related to Performance of Health Programmes

The types of information covered under this heading are mostly performance based and related to specific health programmes.

5.5.1. Family Health Programme — Examples are

- * B.C.G. coverage of infants by geographical distribution
- * Polio immunization coverage for infants
- * Coverage of infants for diphtheria, pertussis and tetanus immunization by public health facilities
- * Deliveries attended by trained personnel
- * Coverage of ante-natal mothers for tetanus toxoid
- * Supplementary feeding beneficiaries, etc.

5.5.2. Environmental Sanitation Programme

- * Population coverage with safe water supply
- * Sanitary latrine population coverage.

5.5.3. Medical Care Programme

- * Outpatient attendance per 1000 population
- * Inpatient admission per 1000 population
- * Hospital care fatality rate.

5.5.4. Dental Care Programme

- * Primary school children covered by dental care service.

5.5.5. Special Programme

- * Leprosy/T.B. cases on treatment
- * Defaulter rate of leprosy/T.B.
- * Average monthly retrieval rate for leprosy/T.B.

6. Current Development of Information System in MOH

- 6.1. In the past five years, MOH has attempted to improve the traditional statistical information system by developing a management oriented system to support the management functions of the decision-makers within MOH. This need was necessary in view of the widening gap in data generation and information utilization,

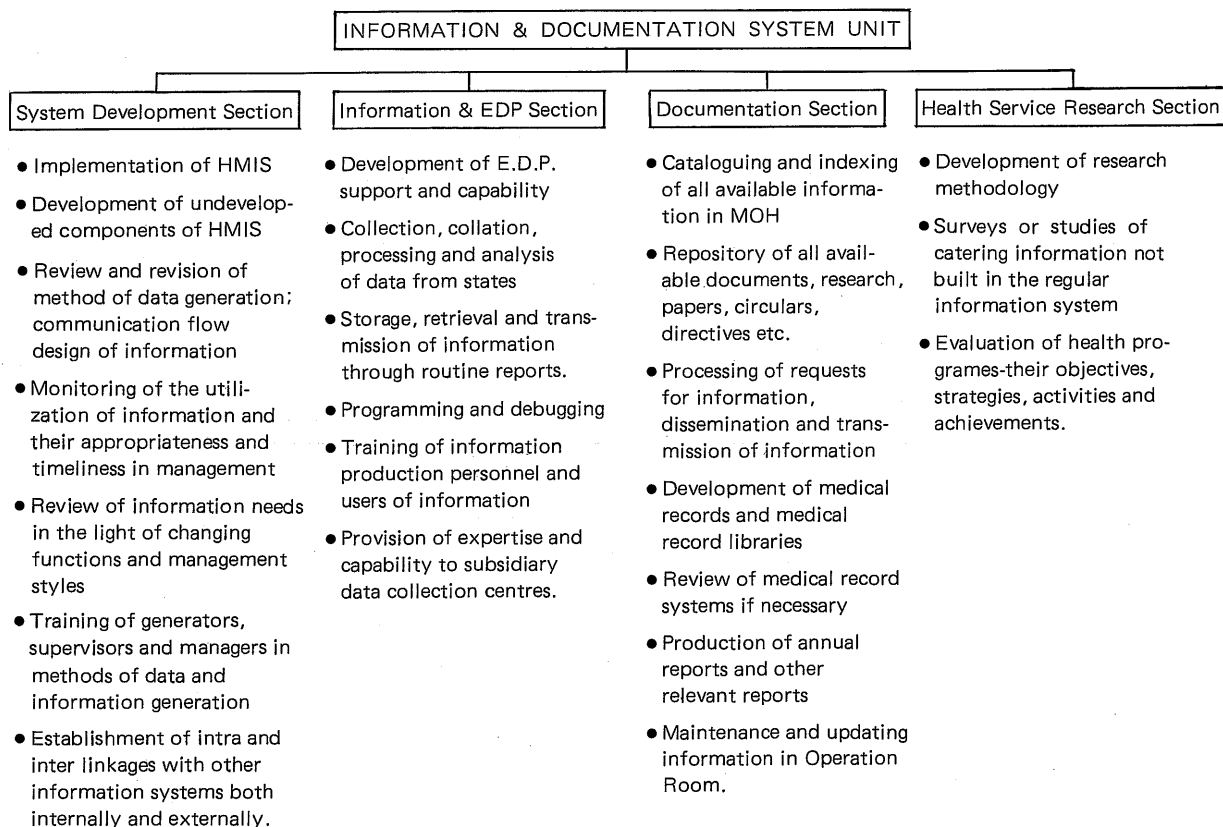
increasing tendency towards data duplication in collection; improper storage and retrieval system and lack of standardization procedures, inadequate data analysis and information extraction plus lack of prioritization of information for generation, selective and timely transmission of relevant and critical information. As such, a project entitled "Development of Health Management Information System" was initiated in 1976 to undertake the major task of improving the health statistics system of MOH.

- 6.2. MOH objectives were the point of departure for identification of functional sub-systems. As can be seen from Figure I that, the three main programmes which contribute to the overall Ministry's objectives are health, medical care and dental care sub-system. The other supportive/resource sub-systems are personnel, finance, supplies, facilities and training.
- 6.3. Within each programme sub-system, based on the objectives of the sub-system; a further breakdown of sub-sub-systems based on functions/activities is possible; and Figure I also shows the sub-sub-systems which constitute the functional components of MOH Programme.
- 6.4. Information common to two or more sub-sub-systems were consolidated for integration of generation. Information specific to a particular programme or sub-sub-system are generated separately. This is to ensure redundancy of data generation being avoided; hereby reducing the data generation work at the operational level.
- 6.5. As a result of this study, a new organisation called Central Unit of Information and Documentation System which is responsible for the collection, transmission, processing, storage, retrieval, information presentation and dissemination was established under the Directorate of Planning and Development. See Figure 2 for the structure and responsibilities under each section.

Figure 1. Subsystems and Sub-subsystems of the Ministry of Health

MINISTRY OF HEALTH – MALAYSIA – HEALTHSYSTEM –									
RESOURCE MANAGEMENT					PROGRAMME SUBSYSTEMS				
SUBSYSTEMS	SUB-SUBSYSTEMS				PATIENT CARE	HEALTH	DENTAL		
					SUB-SUBSYSTEMS				
						Fluoridation			
						Personnel Dental Care			
						Health Supportive – Health Education, Epidemiology, Applied Food and Nutrition			
						Tuberculosis Control			
						Leprosy Control			
						Malaria Eradication			
						Occupational Health			
						Vector Control			
						Disease Control & International Health			
						Filariasis Control			
						General Sanitation			
						Food Sanitation			
						School Health			
						Family Planning			
						Child Care			
						Maternal Care			
						Patient-care Supportive			
						In-patient			
						Out-patient			
								P.O.	P.O.
								MINISTRY OF HEALTH'S OBJECTIVES	

Figure 2. Functions of Information and Documentation Systems Unit



- 6.6. Under HMIS, there has been a shift in information content from measurement of workload/output by activities towards measurement in the quality of health care services. The type of information identified, to a considerable extent, are supposed to measure coverage, continuity, accessibility, availability, and acceptability and utilization of health care services. The following table shows a few examples on the 'old' and 'new' type of information collected.

Traditional Information	New Information
1. Total number of complication of neo-nates referred to hospital.	1. Total number of complication of neo-nates referred to hospitals and health centres by types.
2. Total number of mothers covered by post-natal home visit.	2. Average number of post-natal home visits done per mother.
3. BCG immunization coverage of primary school children (Std. I and Std. VI).	3. B.C.G. immunization coverage of — Std. I pupils without BCG scars. — Std. VI pupils with less than 2 BCG scars.
4. Total number of admission by sex.	4. Total number of admission by sex, and by discipline.
5. Hospital bed occupancy rate.	5. Bed occupancy rate by various discipline.

- 6.7. Apart from this, there are feasible potential benefits which include

- * Standardization — in information
 - in terminology
 - in forms.
- * Complete, consistent and more reliable information.
- * Information are comparable over
 - space
 - time
 - sub programmes/ activities.
- * Improved management because of better quality data and use-oriented information.
- * Integration with other system
- * Elimination of redundancy in data generation.

- 6.8. However, in view of prevailing economic recession, the implementation plan towards computerisation of the system has been deferred to a future date.

7. Other Health Information related Activities

Apart from collecting routine information; MOH also developed health indicators, summarized indices, used to measure performance and impact of health services on the population. They are also used to assess achievement of objectives to see if resources have been effectively and efficiently utilized.

- 7.1. Health Programme Indicators — Developed specifically to monitor the prevailing health problems and health actions towards specific goals or objectives and expected output or outcomes. It is supposed to be updated 5 yearly.
- 7.2. Indicators for Monitoring and Evaluation of Strategy for Health for All by the Year 2000 (HFA/2000)— Done at the recommendation of W.H.O. working group on indicators (W.H.O. Regional Office for Western Pacific Region) with the view and need to strengthen managerial processes for national health development.
- 7.3. MOH Annual Report — The First MOH Annual Report (being published) detailing the programme objectives, activities and achievements, etc. has been done.

8. Future Needs

From system planning view point, the following have been identified as priority areas which need immediate improvement and expansion of management information system.

- 8.1. Strengthening the gap between data generation and analysis, and utilization of information for decision making by management.
- 8.2. Improve the mechanism for data processing and retrieval system for increased number of variables for analysis.
- 8.3. Intensify the training of information system personnel, particularly in medical records, to meet changing needs.

REFERENCES

1. Third Malaysia Plan 1976 — 1980
2. 'General Report of the Population Census: 1980 Population and Housing Census of Malaysia' Department of Statistics Malaysia.
3. 'Social Statistics Bulletin' Malaysia 1980, Department of Statistics Malaysia.
4. 'Country Health Information Profile—Malaysia', Planning and Development Division, Ministry of Health Malaysia, 1983.
5. Report on 'WHO Working Group on Indicators for Monitoring and Evaluation of Strategy for Health for All The Year 2000' Manila, Philippines, 2 — 9 March 1982, Datuk (Dr.) Abdul Khalid bin Sahan.
6. 'Health Programme Indicators', Planning and Development Division, Ministry of Health 1981.
7. Indicators for Monitoring and Evaluation of Strategies for Health for All by the year 2000'. Planning and Development Division, Ministry of Health 1983.
8. 'Technical Report No. 1: Conceptual Phase — Health Management Information System Development Project', Ministry of Health/Government of Malaysia in collaboration with WHO Western Pacific Region Office, Manila.
9. 'The Development of operational Performance and Impact Indicators with special reference of Community Health'—Malaysia Country Report. Proceedings of the 6th SEAMIC Workshop, SEAMIC Tokyo 1979.
10. Working Documents related to the Development of Health Management Information System, Planning and Development Division, Ministry of Health Malaysia, 1976 — 1982.

(International Division, Ministry of Health)

Health Statistics in the Philippines

I. MORBIDITY STATISTICS

1. History

Data on notifiable diseases are based on informations gathered by field health personnel as provided for in the Law on Reporting of Communicable Diseases (Act 3573) passed in November 26, 1929.

2. Purpose

The purpose of these statistics is to obtain information on the trend of occurrence of major communicable diseases and their epidemiological features for surveillance and institution of appropriate preventive and control measures.

3. Coverage

Nationwide.

4. Contents of Reporting Forms

Weekly number of cases and deaths of Notifiable Diseases by age and sex and by place of occurrence.

5. Data Collection Procedure

The DIC-2 Forms used are submitted simultaneously to the Regional Health Office and the Disease Intelligence Center by the City Health Office, Municipalities, Provincial Health Office comprising such regions.

6. Consolidation, Analysis and Presentation

These reports are consolidated for the regions and the whole country. The 10 leading causes are listed, and the annual morbidity rates, incidence rates and expected levels are computed.

The DIC takes charge of the tabulation and results are released through the following regular publications:

- A. DIC Bulletin—Weekly
- B. Weekly Disease Intelligence—Weekly
- C. Philippine Health Statistics—Annual
- D. State of Health— every 3 years

II. MORTALITY STATISTICS

1. History

Deaths and fetal deaths are registered in accordance with Civil Registry Act Number 3753 within 48 hours after death.

2. Purpose

These statistics are used for medical and legal purposes. Medical—to gather information on the causes of death for specific group of people for purposes of prevention and control. Legal— so that the deceased person will be relieved from social, legal and official obligations.

3. Coverage

Nationwide.

4. Contents of Reporting Form

The reports are based on the data compiled from the death certificates of the Office of the Local Civil Registrar and are submitted to the DIC, Ministry of Health using the DIC Form 3 (Monthly Mortality Report). These data are tabulated by place of occurrence, by cause, age, sex and medical attendance.

5. Data Collection Procedure

Data are gathered by field health personnel of each Municipalities, Cities, Provincial Health Office and are simultaneously submitted to the Regional Health Office and the Disease Intelligence Center, Ministry of Health

every month or after each calendar year.

6. Consolidation, Analysis and Presentation

The Disease Intelligence Center consolidates monthly reports from City Health Office and Provincial Health Office and makes the final analysis of the annual data. These are presented by frequencies, comparisons, trends and distribution of total mortality, infant mortality, maternal mortality and fetal mortality throughout the Philippines in the Annual Philippine Health Statistics.

III. NATALITY STATISTICS

1. History

As provided for by the Civil Registry Act #3753 and Presidential Decree #651 s. 1975, all livebirths shall be registered within 30 days from date of birth.

2. Purpose

The purpose of these statistics is to determine the number of livebirths in the Philippines and in addition to obtain the fertility rates among Filipinos and statistical indices computed to be used in the appraisal of the nation's state of health.

3. Coverage

Nationwide.

4. Contents of Reporting Form

Nativity statistics are consolidated using DIC form 4 (Monthly report on births) and are tabulated by sex, nationality, place of birth, attendance, age of mother and legitimacy.

5. Data Collection Procedure

All municipalities/cities/provincials in their health offices submit their monthly report to their respective Regional Health Office and to the Disease Intelligence Center, Ministry of Health.

6. Consolidation, Analysis and Presentation

Appropriate and practical graphical and diagrammatic presentation are made at each level as released by the

DIC in its annual Philippine Health Statistics. These data presents the monthly and annual trends, sex ratios, attendance by birth, illegitimacy ratio and births by location.

IV. POPULATION STATISTICS

1. History

The Disease Intelligence Center obtain yearly population statistics from the National Census and Statistics Office. The first census was done in March 1903 and the latest was held in May 1980.

2. Purpose

The purpose of this census is to provide data on the present situation of population in the Philippines.

3. Coverage

Nationwide.

4. Contents of Reporting Form

The population by municipalities/cities/provinces/regions and the total Philippine population are tabulated by age, sex and other demographic characteristics such as distribution by occupation, educational attainment, income, rural or urban.

5. Data Collection Procedure

The population statistics or censuses are conducted in the Philippines every 10 or 5 years using enumerator or interview method.

6. Consolidation, Analysis and Presentation

The total population by age, sex, citizenship, place of birth, marital status, educational characteristics and language is released by the National Census and Statistics Office with their summary of the population projection by regions/province for 1970–2000.

Using the geometric method and based on the most recent census counts, the Disease Intelligence Center prepares official estimates of our population and make releases in the annual Philippine Health Statistics, City Health Office and Provincial Health Office.

(Planning Service, Minsitry of Health)

Sources of Medical and Health Statistics in Singapore

I. POPULATION & VITAL STATISTICS

1. Background Information

The main sources of information on population and vital statistics of Singapore are from censuses and compulsory vital registration of births and deaths.

Singapore conducted its first population census in 1871 and subsequent censuses at ten-year intervals till the outbreak of World War II. In the pre-war censuses, Singapore was included as part of the Straits Settlements and later of Malaya. Separate censuses for Singapore were carried out in 1947, 1957, 1970 and 1980. Mid-year population estimates are made for the intercensal years.

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

2. Purpose

The main purpose of conducting censuses is to obtain updated information on the population situation in the country. In the case of vital registration, besides the legal requirements, the aim is to collect detailed information on births and deaths including the underlying causes of mortality. Such data are essential for statistical analysis of changes in the population and studies of mortality trends. Census information is particularly used for planning and for evaluating programmes such as housing, education, health, transport and other social amenities, as well as for research and analysis by the Government, private corporations and individuals.

3. Coverage

The whole population of Singapore.

4. Contents

In the 1980 Census of Population, the detailed information collected on the population could be classified under the following broad categories.

- (i) Demographic characteristics
- (ii) Literacy and educational qualifications
- (iii) Economic characteristics and employment
- (iv) Geographic distribution
- (v) Houses and households
- (vi) Income and mode of transport
- (vii) Language and dialects spoken at home
- and (viii) Religion and fertility.

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

(a) Births

- (i) Number and rate
- (ii) Number and percentage distribution by birth attendant
- (iii) Number and rate by age of mother and ethnicity
- (iv) Number by occupation of father and birth order
- (v) Number by birth weight and gestation period
- (vi) Crude birth rate
- (vii) Age specific fertility rate
- (viii) Total fertility rate
- (ix) General fertility rate

and (x) Gross reproduction rate.

(b) Deaths

- (i) All deaths, number and rate by age, sex, ethnic group, medical attendance and cause
- (ii) Infant deaths, number and rate by sex, ethnic group and cause
- (iii) Neonatal deaths, number and rate by sex, ethnic group and cause
- (iv) Perinatal deaths, number and rate
- (v) Still births, number and rate
- (vi) Maternal deaths, number and rate
- (vii) Crude death rate

- (viii) Causes of deaths by age and sex (coding based on ICD9)
- and (ix) Standardized mortality ratio.

5. Data Collection Procedure

In the 1980 Population Census, the required particulars of all persons in Singapore were recorded at their place of residence on the designated Census Day by field enumerators despatched to the different Census Districts. All census houses were numbered, households identified and listed, and particulars of persons recorded. Households were revisited to confirm or update particulars of members to refer to Census Day. The whole process of enumeration and data collection was carried out under the supervision of the Department of Statistics, Ministry of Trade and Industry.

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

6. Tabulation and Publication

The Department of Statistics is responsible for the tabulation and release of census results and also for the periodic publication of population and vital statistics. The data are published in the Monthly Demographic Bulletin, Monthly Digest of Statistics and the Yearbook of Statistics, Singapore. Detailed information on births and deaths are published annually in the Annual Report of the Registration of Births, Deaths and Marriages.

II. HEALTH SERVICE UTILIZATION STATISTICS

1. Background Information

Prior to 1976, the responsibility of data collection and the determination of the type of data to be collected rest with each government health institution depending on their specific administrative needs and requirements. However, with increasing awareness and recognition of the importance of developing an effective health management information system (HMIS) for both administrative and planning purposes, the overall system of data collection was revamped in 1976. The task of developing and maintaining the HMIS was put under the charge of the Research and Evaluation Section of the Ministry of Health. The HMIS has undergone a number of revisions since 1976 in tandem with the changing needs and requirements of health administrators and planners.

In 1978, the statistical system was extended to cover the activities of the private hospitals. However, information on activities of private clinics are not monitored routinely and are obtained thus far from ad hoc surveys.

2. Purpose

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

3. Coverage

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

4. Contents

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

- (i) Use of inpatient facilities eg. hospital admissions, bed-days, bed occupancy, duration of stay and discharges by speciality
- (ii) Surgical operations and anaesthetic procedures
- (iii) Outpatient attendances at hospital specialist clinics, A&E departments, primary health care and dental clinics
- (iv) Radiological and laboratory investigations and extent of use of services of various other para-clinical and ancillary departments eg. Radiotherapy, Physiotherapy etc.
- (v) Use of drugs
- (vi) Home nursing service
- (vii) Health screening and immunization
- (viii) Government health manpower and workload indicators
- and (ix) Government health expenditure, revenue and costing.

5. Data Collection Procedure

The statistical returns are submitted on prescribed forms on a monthly basis by the various service centres to the Research and Evaluation Section of the Ministry of Health for processing.

6. Tabulation and Publication

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

III. HEALTH MANPOWER STATISTICS

1. Background Information

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

Special manpower registers for these groups of personnel are kept and updated periodically. To facilitate records maintenance and faster retrieval of statistical information, these registers have been computerised.

2. Purpose

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

3. Coverage

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

4. Contents

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

5. Data Collection Procedure

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

6. Tabulation and Publication

The Research and Evaluation Section, Ministry of Health is responsible for the tabulation and analysis of the statistical data. Reports on these key health personnel are published annually.

IV. PATIENT DISEASE STATISTICS

1. Background Information

Routine collection of morbidity statistics on patients admitted into government hospitals started in 1979 as part of an overall objective of augmenting the existing data on specific notifiable diseases and other data on specific diseases from special disease registers such as that of tuberculosis, leprosy, venereal disease and cancer.

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

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

To supplement the morbidity data collected on inpatients, special censuses and studies have also been conducted on long staying patients particularly those in the mental institutions. Mainly because the available morbidity data collected are inadvertently biased towards certain groups of people who seek medical attention from hospitals and clinics, ad hoc morbidity and other health examination surveys have also been carried from time to time to obtain additional information which would provide a better understanding of the disease problems prevailing in the community.

2. Purpose

The main purpose of collecting the data is to study the morbidity patterns of patients and to analyse the epidemiological profile of patients with different disease conditions. This is to help in the planning and proper design of government and community health programmes.

3. Coverage

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

4. Contents

Data on hospitalised patients include:

- (i) Socio-economic profile eg. age, sex, ethnicity, nationality, occupation

- (ii) Patient classification by speciality
 - (iii) Source of referral
 - (iv) Diagnoses (coding based on ICD9)
 - (v) Surgical operation
 - and (vi) Underlying cause of death (in the case of death of patient).
- For outpatients, the principal morbid condition for which the patient is treated is recorded.

5. Data Collection Procedure

In the case of government hospital inpatients, the data are extracted from the admission forms and discharge summaries while private hospitals submit their data on special returns prescribed by the Ministry of Health. Morbidity data on outpatients are compiled from daily tally sheets completed by doctors attached to the government primary health care clinics.

6. Tabulation and Publication

The Research and Evaluation Section, Ministry of Health is responsible for co-ordinating, editing and coding the returns. The inpatient returns of both government and private hospitals are processed by computer. The statistics are published annually in three separate reports.

V. STATISTICS ON NOTIFIABLE DISEASES

1. Background Information

Statistics from notification of specific infectious diseases eg. smallpox, chicken pox, cholera, enteric fever, typhus, dengue haemorrhagic fever, malaria, encephalitis, hepatitis, tuberculosis, venereal disease and leprosy are collected routinely.

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

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

2. Purpose

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

3. Coverage

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

4. Contents

All reported cases of notifiable infectious diseases by type including information on profile of infected persons and geographical distribution of occurrence of these diseases.

5. Data Collection Procedure

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

6. Tabulation and Publication

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

VI. STATISTICS ON PREVENTIVE HEALTH CARE SERVICES

a. IMMUNIZATION

1. Background Information

Immunization of pre-school children is the responsibility of the MCHS with follow-up home visits by Staff Nurses of MCHS and Public Health Inspectors of the Ministry of the Environment to cover missed cases or defaulters of the programme.

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

Immunization against smallpox, cholera and yellow fever is provided by the Port Health Authority to any mem-

ber of the public. Private medical practitioners also provide immunizations.

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

2. Purpose

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

3. Coverage

All pre-school and school children in Singapore.

4. Contents

Data collected include:

- (i) Number of immunizations administered
- (ii) Number of children immunized by age
- (iii) Type of immunization
- (iv) Immunization coverage rate.

5. Data Collection Procedure

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

6. Tabulation and Publication

Statistics on the immunization programme is tabulated and published in the Report of the Childhood Immunization Programme in Singapore by the Quarantine & Epidemiology Department of the Ministry of the Environment. Information is also available in the Maternal & Child Health Services Annual Report and School Health Services Annual Report.

b. CONTRACEPTION, STERILIZATION AND LEGALISED ABORTION

1. Background Information

The Singapore Family Planning and Population Board was established in 1966 by an Act of Parliament as a Statutory Board under the portfolio of the Minister for Health. When the National Programme began in 1966, the main objective was to provide good and easily accessible clinical services where all couples desirous of practising

family planning could obtain professional advice and contraceptive supplies.

In 1972, all existing programme activities of the Board were intensified and many new measures were initiated. Both the Abortion Act (1969) and the Voluntary Sterilization Act (1969) legalising abortion and sterilization were repealed at the end of 1974 and replaced by the Abortion Act, 1974 and Sterilization Act, 1974 which further liberalised abortion and sterilization in the Republic.

The collection of statistics on contraceptive methods used started in 1966/67 while statistics on sterilizations and legalised abortions were collected as from 1970.

2. Purpose

The purpose of collecting the data is to monitor the progress of the family planning programme activities and to provide the necessary information for policy formulation and programme planning.

3. Coverage

All persons who seek advice on family planning at the government clinics and those who have undergone sterilization or abortion.

4. Contents

The statistical data collected include:

- (i) Attendances by government clinic and contraceptive methods according to new cases/revisit.
- (ii) Profile of family planning new acceptors.
- (iii) Number of sterilizations and profile of persons who have undergone sterilization.
- (iv) Number of legalised abortions performed and profile of persons who have had their pregnancies terminated.

5. Data Collection Procedure

Monthly returns on family planning acceptors from government clinics and sterilization and abortion returns from all clinics/institutions are submitted to the Research and Evaluation Unit of the Singapore Family Planning and Population Board for data processing.

6. Tabulation and Publication

The Research and Evaluation Unit of the Board is responsible for statistical tabulation and data analyses. The information is published annually.

(Research & Evaluation Section, Ministry of Health)

Health Statistics in Thailand

I. OUTLINE

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

In Thailand, the administrative area has been classified into various levels: central, provincial, district, sub-district (*tambon*), and village. The health care delivery systems are provided along with such organizational structure.

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

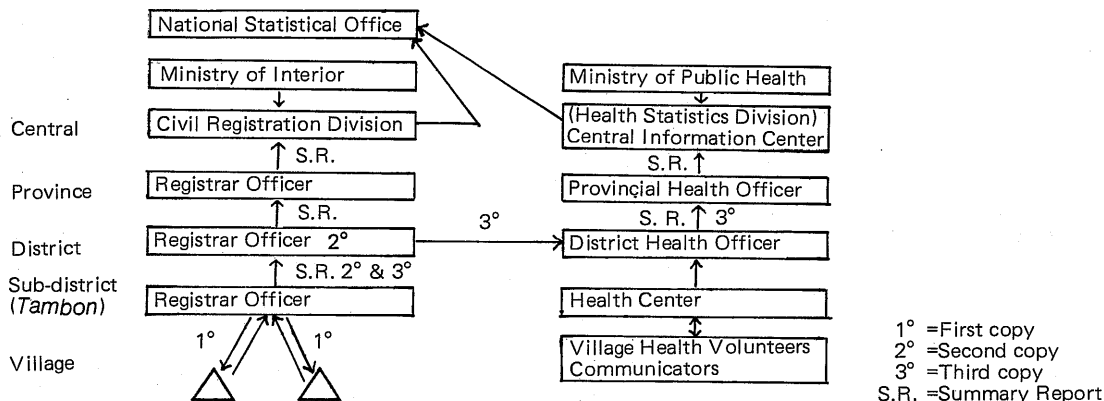
Within the context of health situation of the population, a variety of health information other than health and vital statistics are required so as to identify health problems. Health policies have been planned in accordance with the health problems of the people and subjected to the improvement of the unsatisfied health situations. Health development plans are formulated to serve such policies and are included in the 5-year national economic

and social development plans. Particularly in the 4th 5-Year Plan, Country Health Programming became the strategy for the health planning formulation in Thailand. With the concept of problem-oriented planning, the health problems are duly identified to prop up the health policy in planning to solve them. Then the requirement of health information including vital and health statistics have become greater and greater, and the effective approaches to obtain more reliable and timely information have been implemented in the essence of high technology. The validity and accuracy of the statistics and information have gradually come up to the satisfactory circumstances, but the timeliness is still the major problem. So it is expected that with the modern technology of computerized data processing system, it will bring in more satisfaction to the users.

II. VITAL STATISTICS

1. Current System

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



2. Channel of Data Collection

If there happens a vital event, birth or death, the owner of the household in the village must report to the registrar officer at the sub-district level for registration. The registrar officer will produce 3 copies of allied certificate. The first copy will be handed to the informant and the second and the third copies will be transferred to the district registrar officer with a summary report on a monthly basis.

The district registrar officer will collect reports and certificates from all sub-districts within its district and prepare the summary report to be presented to the provincial level. The 2^o copy of the certificate will be kept as the legal document at the district office while the 3^o copy will be passed to the district health officer. At this junction, the vital registration system and the health system is coordinated.

The provincial registrar officer will collect the monthly report on vital events presented by all district registrar offices and prepare the summary report to be submitted to the central level which is under the responsibility of the Civil Registration Division, Department of Local Administration, Ministry of Interior. The reports are made on a monthly basis and at the end of each year the Civil Registration Division will publish the total number of population, birth, death and other movements.

When the 3^o copies of vital certificate are passed from the District Registrar Officer to the District Health Officer, a summary report on vital events will be prepared and submitted to the Provincial Health Officer together with the actual 3^o copies. In this connection, at provincial level, the summation of total number of births and deaths is computed and sent to the central level of the Ministry of Health in terms of the summary report.

The Central Information Center or the Health Statistics Division of the Ministry of Public Health collect and compile the total number of vital events from the summary reports and prepare the annual report for the Ministry after having analysed and performed various types of statistical presentation.

The National Statistical Office will perform function of publishing all national statistical figures for the whole country. The vital statistics from the Ministry of Public Health is also sent to this office on an annual basis.

III. HEALTH STATISTICS

Other health statistics can be obtained within the system of the Ministry of Public Health. In the above diagramme, the flow of information can be illustrated from the grass-root of the health delivery system. The information can be classified into Health Status, Health Activities, and Health Resources.

1. Health Status

1.1 Morbidity from the outpatient and inpatient in hospitals and health institutions. The disease categorization

is based on the A-list and the 9th edition of the International Classification of Diseases provided by WHO.

- 1.2. Epidemiological data obtained from the prompt reports on surveillance scheme which provide the prompt information at the occurrence of disease or unfavorable condition of the population concerning with ill-health.
- 1.3. Natality, mortality and cause of death statistics from vital registration system.
- 1.4. Data Collection Procedure
Morbidity statistics for in-patients and out-patients are submitted on monthly basis from public hospitals and health service centres compiled for the whole province and separately for municipal areas in each province. Epidemiological data are submitted in prescribed forms on daily basis for some specified communicable diseases and on a weekly basis for other communicable diseases from public and private health service centres.
- 1.5. Tabulation and Publication
Natality, morbidity and mortality data are published in *Public Health Statistics*. Epidemiological data are published yearly in *Epidemiological Surveillance Report* and in other special publications weekly, monthly and quarterly.

2. Health Activities

- 2.1. This kind of health information can be obtained from each level of health delivery system in accordance with the progress of the activities performed by the health personnel. The health indicators have been established for each programme or project and the recording and reporting systems are required to facilitate the monitoring and evaluation of the health projects.
A variety of record and report formats were designed and put into practice according to the requirements of the responsible health units. The publication of information is undertaken on an annual basis.
For the time being, there is still no responsible persons to do this job in specific, so the health service personnel have to perform this task consuming much of their time until the complaints are made due to insufficient time for rendering services.
- 2.2. Coverage
Activities on health projects or programs undertaken by public health personnel at all levels.

2.3. Contents of report

1. Health care delivery
2. Mental health
3. Referral system
4. Immunization
5. Venereal disease control
6. Leprosy control
7. Tuberculosis control
8. Worm and parasite control
9. Malaria control
10. Veterinary public health
11. Diarrhoea control
12. Maternal and child health
13. School health
14. Nutrition
15. Dental health
16. Environmental health
17. Health education
18. Health supervision
19. Epidemiological surveillance
20. Primary health care
21. Food sanitation
22. Planning management information

2.4. Data Collection Procedure

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

2.5. Tabulation and Publication

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

3. Health Resources

- 3.1. This kind of information is also essential for the administration in the health field. Without knowing the health resources, health activities could not run smoothly and efficiently. Health resources comprised health manpower, health institutions, hospitals and health centres, finance, budget supplies, and equipment. These kinds of information are collected on an annual basis and the Central Information Centre of the Ministry of Public Health has been assigned to perform this job.
- 3.2. Coverage
The data collected cover health resources of all government, state enterprise and private hospitals and health service units.
- 3.3. Contents
1. Number of health service units classified by number of beds, specialties and type of organization
 2. Number of health personnel
 3. Buildings and construction
 4. Equipment
 5. Budget and finance
- 3.4. Data Collection Procedures
The data are collected in the prescribed health resources report from on a yearly basis by the various health service centres to the Central Health Information Centre except for Bangkok. The questionnaire is used for health institutions in Bangkok.
- 3.5. Tabulation and Publication
The data are collected and published annually in summary in *Public Health Statistics* and in more details in *Report on Health Resources*.

(Health Statistics Division, Ministry of Public Health)

Health Resources Statistics in Japan

I. SURVEY ON MEDICAL CARE INSTITUTIONS

1. History

Before the formal establishment of the Survey on Medical Care Institutions, the reporting on the number of facilities, their geographical location and type of services provided had been included in *the Statistical Report on Home Affairs*.

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

In 1973, a major modification for structural arrangement and procedure was made. It divided the survey into two portions, the Main Detailed Survey and the Brief Monthly Survey.

2. Purpose

The purpose of the survey is to provide the data on the geographical distribution, characteristics, manpower and equipments of medical care institutions.

3. Coverage

The Main Detailed Survey is conducted as of December 31 every three years and the Brief Monthly Survey is done as of the end of every month.

4. Contents of Questionnaire

A. Main Detailed Survey

- a. Name of medical care institution
- b. Address
- c. Type of ownership
- d. Number of beds, by kind
- e. Equipments installed
- f. Speciality
- g. Number of personnel, by kind

B. Brief Monthly Survey

- a. Name of medical care institution
- b. Address
- c. Type of ownership
- d. Type of reporting (establishment, abolished or suspended)
- e. Number of beds, by kind
- f. Speciality

5. Data Collection Procedure

The questionnaire prepared by a responsible person in the institution is submitted to the Health Center that administers the area where the medical care institution is located. The collected questionnaires are sent to the Statistics and Information Department through the prefectural and designated city governments.

6. Tabulation and Publication

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

II. HOSPITAL REPORT

1. History

The original of the Report was started as *the Weekly Hospital Report* in 1945 and in 1948 it was modified to the monthly report, together with the extension of the coverage of the tuberculosis and leprosy hospitals.

The Hospital Report was initiated in November 1948 with the enactment of Medical Service Law.

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

2. Purpose

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

3. Coverage

All hospitals in Japan.

4. Contents of Reporting Forms

A. Patient schedule (monthly)

Number of inpatients, outpatients, newborns, etc.

B. Employee schedule (annual)

Number of physicians, pharmacists, nurses, etc.

5. Data Collection Procedure

The reporting forms are filled out by the superintendent of the hospitals and sent to the Ministry of Health and Welfare through the Health Centers and prefectural governments.

6. Tabulation and Publication

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

III. SURVEY ON PHYSICIANS, DENTISTS, AND PHARMACISTS

1. History

Originally, the Survey on Physicians, Dentists, and Pharmacists had been included in *the Statistical Report on Public Health Services*.

In 1948 with the enactment of the Medical Practitioners Law and Dentists Law and in 1954 with the amendment

of the Pharmaceutical Affairs Law, the reporting forms on physicians, dentists, and pharmacists were separated from the Statistical Report and composed the new statistics, the Survey on Physicians, Dentists and Pharmacists in 1954.

2. Purpose

The survey has the purpose to collect the information on the number and geographical distribution of these health personnel.

3. Coverage

The survey covers all physicians, dentists, and pharmacists registered in Japan.

4. Date

As of December 31, annually. (Since 1982 every two years)

5. Contents of Reporting Forms

- A. Name
- B. Sex
- C. Date of birth
- D. Date of registration
- E. Registration number
- F. Type of license
- G. Speciality
- H. Employment status

6. Data Collection Procedure

The reporting form filled out by each medical profession is submitted to a Health Center. At the Health Center, editing work is done and the reporting form is sent to the Statistics and Information Department via the prefectural government where the reporting form is duplicated for local use.

7. Tabulation and Publication

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

IV. STATISTICAL REPORT ON PUBLIC HEALTH SERVICES

1. History

The Statistical Report on Home Affairs, the original of *the Statistical Report on Public Health Services*, was initiated in 1886.

As the Ministry of Health and Welfare was established in 1938, it was newly enacted as the Statistical Report on Public Health Services.

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

2. Purpose

The purpose of the Report is to collect the data on the present situation of the health administrative activities in the prefectural and designated city governments.

3. Coverage (for Reporting Forms Relating to Health Resources)

The Report covers all public health nurses, midwives, nurses, dental hygienists and dental technicians working in Japan.

4. Data

As of December 31 (reporting forms on health manpower)

5. Contents of Reporting Form

- A. Type of health occupations
- B. Age and sex
- C. Place of work

6. Data Collection Procedure

The five active health personnel are required to report their characteristics annually to the prefectural and designated city governments, where the reporting forms are filled out and sent to the Statistics and Information Department.

7. Tabulation and Publication

The Statistics and Information Department takes charge of the whole tabulation and the results are released through publications.

V. SURVEY ON SOCIAL WELFARE INSTITUTIONS

1. History

The Statistical Report on Social Welfare Services, the original of *the Survey on Social Welfare Institutions*, had been carried out until 1955.

In 1956 the Survey on Social Welfare Institutions was initiated in order to collect the data on the manpower and functions of the institution directly from each institution.

2. Purpose

The purpose of the Survey is to provide the data on the geographical distribution and functions of the Social Welfare Institutions.

3. Coverage

The Survey covers all social welfare institutions in Japan.

4. Date

As of October 1, annually.

5. Contents of Questionnaire

- A. Type of institution
- B. Name of institution
- C. Address
- D. Number of staffs
- E. Capacity

6. Data Collection Procedure

The Ministry of Health and Welfare plans the survey and the Welfare Offices conduct it under the supervision of

the prefectural and designated city governments.

The Welfare Offices deliver the questionnaires, which are filled out by the superintendent of the institution and collect them to send to the Statistics and Information Department through the prefectural and designated city governments.

7. Tabulation and Publication

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

VIII. POPULATION CENSUS

1. History

The population censuses in Japan have been taken almost every five years since 1920, the 1980 Population Census being the thirteenth one.

Regular quinquennial censuses included the large-scale censuses and the simplified censuses. The censuses that were taken every ten years starting 1920 were the large-scale censuses, while the censuses that were taken in the fifth year after the large-scale decennial censuses were simplified censuses. The main difference between the large-scale census and the simplified census during the prewar period was the number of questions asked in the census. In a simplified census, questions were limited to basic characteristics of population, i.e., name, sex, age, marital status, etc., while a large-scale census covered questions on the economic characteristics such as occupation and industry in addition to the basic characteristics of population.

After World War II, the scale of census-taking has generally been amplified so as to satisfy the increased demands from the variety of users of the census results. The 1955, 1965 and 1975 censuses, which were taken as the simplified census, covered almost equal number of items as the prewar large-scale census. The 1980 Population Census was taken as a large-scale one and the number of questions was increased than before.

2. Purpose

The purpose of this census is to provide the data on the present situation of population in Japan.

3. Coverage

The 1980 Population Census covered the whole population in Japan.

This census used the so-called *de jure* population concept in enumerating the people. It means, a person was enumerated at the place where he or she usually lived and was counted as the population of that area.

4. *Date*

The 1980 Population Census was taken as of 0:00 A.M. of October 1, 1980. This date is the same as past regular censuses since 1920.

5. *Contents of Questionnaire*

A. For household member

- a. Name
- b. Sex
- c. Year and month of birth
- d. Relationship to the head of the household
- e. Marital status
- f. Nationality
- g. Time moved into the present house
- h. Previous address
- i. Education
- j. Type of activity
- k. Name and kind of business of employer or a self-employed person's business (industry)
- l. Kind of work (occupation)
- m. Employment status
- n. Place of work or location of school

B. For household

- a. Type of household
- b. Number of household members
- c. Source of household income
- d. Type of tenure of dwelling
- e. Number of dwelling rooms
- f. Area of floor space of dwelling rooms
- g. Type of building and the number of stories

6. Data Collection Procedure

The field enumeration of the 1980 Population Census was conducted, within their respective jurisdictions, by the mayors or the heads of city, ward and village, under the supervision of the governments of prefectures. The whole procedure was planned and administered by the Statistics Bureau, the Prime Minister's Office.

7. Tabulation and Publication

The Statistics Bureau, the Prime Minister's Office takes charge of the whole tabulation of the census results and the results are released through publications and other media.

IX. VITAL STATISTICS

1. History

The modern Meiji Government was established in Japan after the Meiji Restoration of 1868, and the administrative organization was rearranged and modernized throughout the country. Following this, by 1872, the family registration system was established and came to function as a permanent source of vital statistics in Japan since then. The jurisdiction of vital statistics system has been transferred since 1947 to the Ministry of Health and Welfare, in view of making full use of the collected data mainly for public health activities.

2. Method of Collecting Data

The characteristics of the present vital statistics system of Japan can be represented mostly by the fact that it is based on the Family Registration System under which the legal status of an individual and its changes are recorded. Because of its legal nature, the Family Registration System is at present under the jurisdiction of the Ministry of Justice.

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

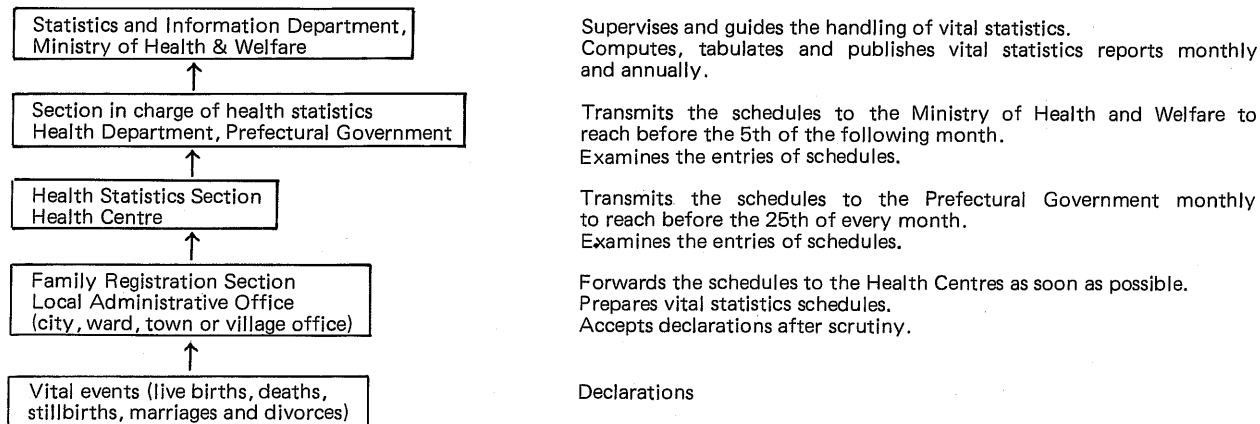
The declaration of birth has to be made with the birth certificate of the physician or the midwife who attended the birth. It should be declared by either father, mother, the person who lives with them or anyone who attended the birth, within 14 days after the birth.

The death has to be declared with the doctor's death certificate or autopsy on the body. The death declaration should be made by the relative or anyone of others who lived with the deceased, the landowner, or the caretaker of the land, within 7 days after the death or the time when the death was known.

The declaration of stillbirth has to be made as a rule with the doctor's or midwife's certificate of stillbirth or dead foetus, and is to be declared by father, mother, the person who lives with them or anyone who attended the stillbirth within 7 days after the stillbirth.

These channels of collecting vital statistics data can be illustrated in the chart as follows:

Channels of collecting vital statistics data



3. Publications of Vital Statistics

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

(1) *Monthly Prompt Report of Vital Statistics*

This Monthly Prompt Report covers total figures of live births, deaths, stillbirths, marriages and divorces by prefecture. It should be noted that the figures included in this report represent merely the number of schedules for each type of vital events forwarded from Prefectural Government and received by the Ministry of Health and Welfare.

(2) *Monthly Report of Vital Statistics*

This Monthly Report contains the figures derived from the processed data. Naturally this report covers a wider variety of more detailed tables of results.

(3) *Annual Report of Vital Statistics*

The Annual Report is the most fundamental one among periodical publications of vital statistics. The Annual Report includes a wide variety of detailed tables and represents final tabulations of vital statistics in Japan. The Annual Report is normally published in about one year after the year of occurrence.

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