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## **P R E F A C E**

Bismillahir Rahmanirrahim.

Assalamualaikum Warahmatullahi Wabarakatuh.

The Health Information Booklet (HIB) 2004 is the ninth edition of the series of booklet published since 1996. It is an annual publication of Statistics Unit, Research and Development Section, Department of Policy and Planning, Ministry of Health, Brunei Darussalam. The aim of publication is to disseminate up-to-date, reliable and useful health related statistics for the use of planners, policy-makers, researchers, academician and the general public.

The booklet contains data / information on health related statistics which have been collected from various relevant departments. The HIB 2004 constitutes an update and further development of data of previous years, which reflect the national development in the health sector. It is hoped that HIB 2004 will serve as useful and informative reference to all users and would welcome any suggestions to further improve the quality of future publication.

Finally, we would like to express a sincere appreciation and gratitude to all relevant departments for their continuous assistance and support in providing the data. Statistics Unit will continue to improve this publication from time to time in line with the increasing demand by a wide range of users.

**HAJAH NORA'ALIA BINTI PEHIN DATU PEKERMA DEWA**  
**DATO PADUKA HAJI ABDUL RAHIM**

Director of Policy and Planning  
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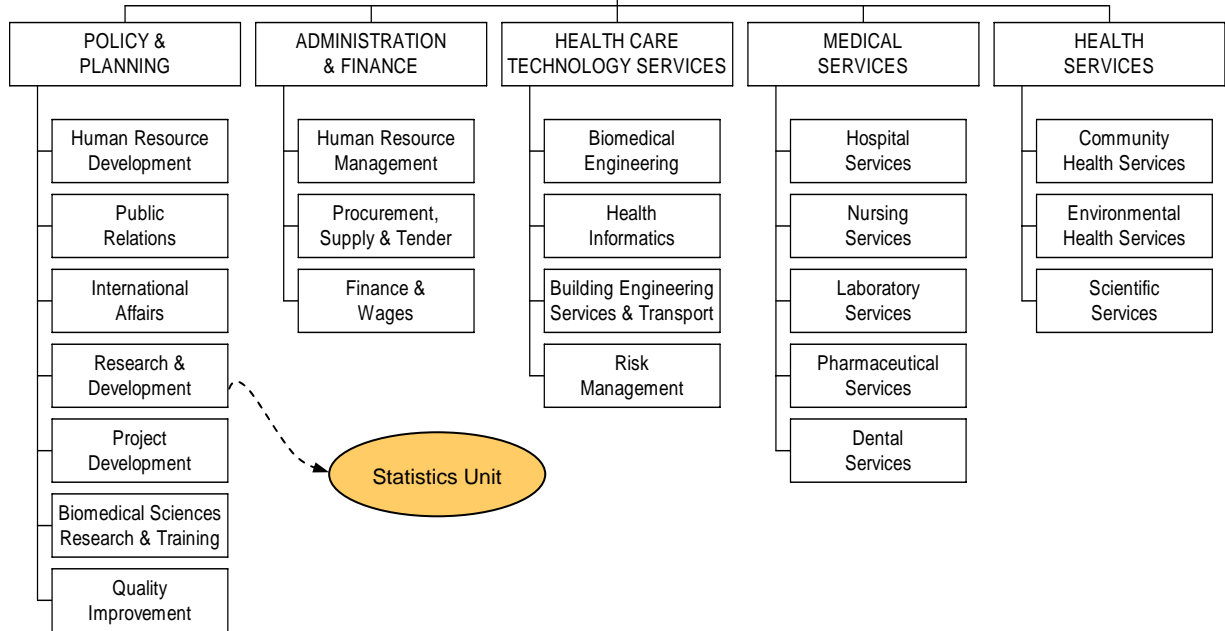
## ORGANISATIONAL CHART (2004)

**VISION** - The vision of the Ministry of Health is to strive to become a highly reputable health service organization which is comparable to the best in the region and which will enable every citizen and resident of the nation to attain a high quality of life by being socially, economically and mentally productive throughout the life span.

MINISTER OF HEALTH

PERMANENT  
SECRETARY

**MISSION** - The Ministry of Health's mission is to improve the health and well being of the people of Brunei Darussalam through a high quality and comprehensive health care system which is effective, efficient, responsive, affordable, equitable and accessible to all in the country



## ***GEOGRAPHY***

Brunei Darussalam covers an area of 5,765 sq. km and lies about 443km north of the equator. Brunei is located on the northwest coast of the island of Borneo in the South China Sea, wedged between the Malaysian states of Sabah and Sarawak. It is bounded on all landward sides by Sarawak, which splits Brunei into two parts.

CAPITAL	:	BANDAR SERI BEGAWAN
DISTRICTS	:	4
MUKIMS	:	39
KAMPONGS / LOCALITY	:	430
HOUSEHOLDS	:	55,696 (2001 Census)
AV. NO. PERSONS PER HOUSEHOLD	:	6.0

## **DEMOGRAPHY**

Brunei Darussalam conducts population census every 10 years. The latest census was done in 2001. Demographic data as a basic requirement for the detection of health disease pattern and trend are as follows:

### Estimated Population (2004) :

Total	:	359.7 Thousands
Male	:	189.4 Thousands
Female	:	170.3 Thousands
Sex Ratio (M / 100F)	:	111
Persons / sq.km	:	62
Annual rate of increase	:	2.9 %

### Age Structure :

0 – 4	:	13.2 %
5 – 19	:	27.2 %
20 – 54	:	54.0 %
55 – 64	:	3.3 %
65 & Over	:	2.3 %

### Race :

Malay	:	66.7 %
Chinese	:	11.2 %
Others *	:	22.1 %

### District :

Brunei-Muara	:	69.1 %
Belait	:	16.7 %
Tutong	:	11.6 %
Temburong	:	2.6 %

Note :

\* - Including Other Indigenous

Source :

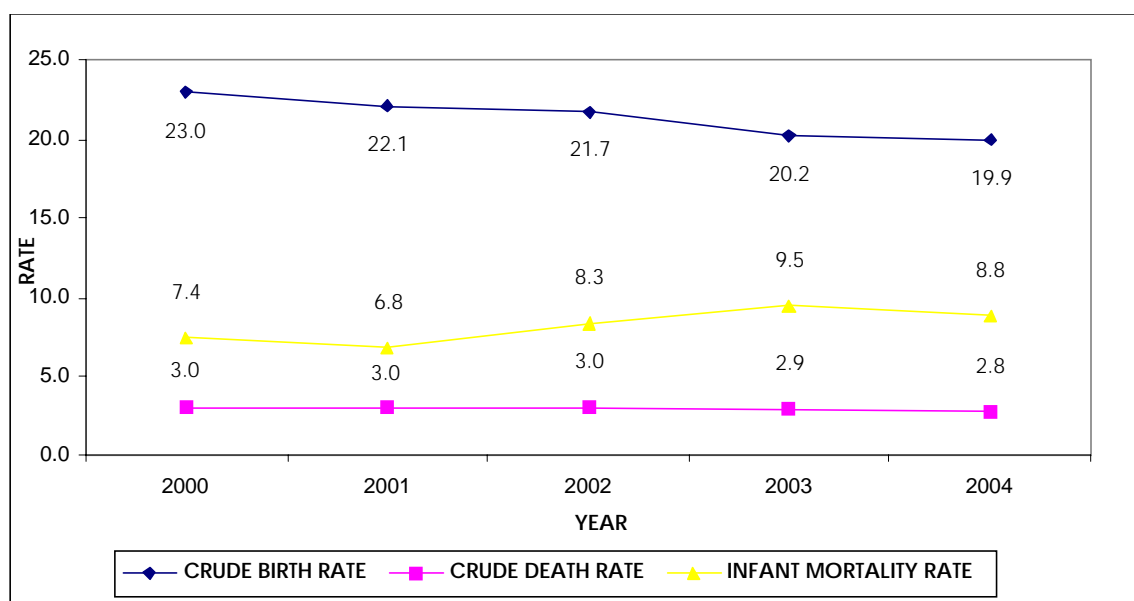
Department of Economic Planning & Development, Prime Minister's Office

## VITAL STATISTICS

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>
Crude Birth Rate / 1,000 Popn. :	23.0	22.1	21.7	20.2	19.9
General Fertility Rate / 1,000 Women (15-49) :	77.0	73.6	76.4	71.8	71.6
Total Fertility Rate / Women (15-49) :	2.4	2.2	2.2	(p) 2.1	(p) 2.1
Crude Death Rate / 1,000 Popn. :	3.0	3.0	3.0	2.9	2.8
<b>Under 5 Mortality Rate / 1,000 LBs. :</b>	<b>10.3</b>	<b>8.8</b>	<b>10.0</b>	<b>11.8</b>	<b>9.8</b>
Late Fetal Death Ratio / 1,000 LBs. :	6.5	6.9	6.7	6.8	6.0
Perinatal Mortality Ratio / 1,000 LBs. :	10.4	9.8	10.3	12.1	9.5
Early Neonatal Mortality Rate / 1,000 LBs. :	3.9	2.9	3.6	5.3	3.5
Late Neonatal Mortality Rate / 1,000 LBs. :	0.9	1.8	1.6	2.0	2.5
Neonatal Mortality Rate / 1,000 LBs. :	4.8	4.6	5.2	7.2	6.0
Post Neonatal Mortality Rate / 1,000 LBs. :	2.5	2.2	3.1	2.3	2.8
<b>Infant Mortality Rate / 1,000 LBs. :</b>	<b>7.4</b>	<b>6.8</b>	<b>8.3</b>	<b>9.5</b>	<b>8.8</b>
<b>Maternal Mortality Ratio / 1,000 LBs. :</b>	<b>0.3</b>	<b>0.4</b>	<b>0.3</b>	<b>0.3</b>	<b>0.1</b>
Life Expectancy At Birth – Male :	73.5	74.2	74.3	74.4	(p) 74.6
– Female :	76.9	77.6	77.2	77.4	(p) 77.5
Percentage of Newborns Weighing At Least 2500g At Birth :	90.0	89.6	90.8	93.0	N/A
<b>Percentage of Deliveries by Trained Health Personnel :</b>	<b>99.0</b>	<b>99.6</b>	<b>99.4</b>	<b>99.4</b>	<b>99.6</b>
Literacy Rate (%) (Age 9 yrs +) – Male :	(*) 93.1	(#) 95.8	(#) 95.8	(#) 95.8	(#) 95.8
– Female :	(*) 84.7	(#) 91.5	(#) 91.5	(#) 91.5	(#) 91.5
Per Capita GDP at current prices (B\$) Thousand :	(p) 22.0	(p) 22.5	(p) 22.2	(p) 23.6	(p) 24.5

Note :

- Popn. - Population
- LBs. - Live-births
- (p) - Provisional
- (\*) - Census in 1991
- (#) - Census in 2001
- Red Text** - Millennium Development Goals (MDGs) Indicators



## **HEALTH FACILITIES**

<u>MEDICAL CARE</u>	<u>NUMBER</u>
- HOSPITAL (4 GOVERNMENTS + 1 PRIVATE)	5
- MEDICAL CENTRES (Ministry of Defence)	5
 <u>HEALTH SERVICES</u>	
- HEALTH CENTRES (1 – PANAGA HEALTH CENTRE)	15
- HEALTH CLINICS	10
- MATERNAL AND CHILD HEALTH CLINICS	15
- TRAVELLING HEALTH CLINICS	13
- FLYING MEDICAL SERVICES	5
- DENTAL HEALTH SERVICES AT :	
HEALTH CENTRES	8
HEALTH CLINICS	10
SCHOOLS	72
TRAVELLING (LAND TRANSPORT)	2
TRAVELLING (FLYING TEAM)	4

\*\*\* DISTRIBUTION MAP OF HEALTH CARE FACILITIES \*\*\*

## MANPOWER

Human Resources For Health	Government		Private	Total
	Hospital	Public Health		
Doctors	297	103	63	463
Population / Doctors	1,211	3,492	5,710	777
Dentists	53	0	15	68
Population / Dentists	6,787	0	23,980	5,290
Pharmacists	26	0	15	41
Population / Pharmacists	13,835	0	23,980	8,773
Nurses *	1,595	328	42	1,925
Population / Nurses	226	1,097	8,564	183

Note :

\* - including Dental Nurses and Midwives

## GOVERNMENT HEALTH EXPENDITURE

	2002	2003	2004
Total Health Budget (B\$ Millions)	215.90	225.46	233.32
Health Budget as % of National Budget	6.64	6.62	6.63
Per Capita Health Budget (B\$)	634	646	649
Health Budget as % of GDP	2.81	2.67	2.66
Total Health Expenditure (B\$ Millions)	210.45	290.15	...
Health Expenditure as % of Government Expenditure	5.72	6.75	...
Health Expenditure as % of GDP	2.74	3.44	...
Per Capita Health Expenditure (B\$)	618	832	...

Note :

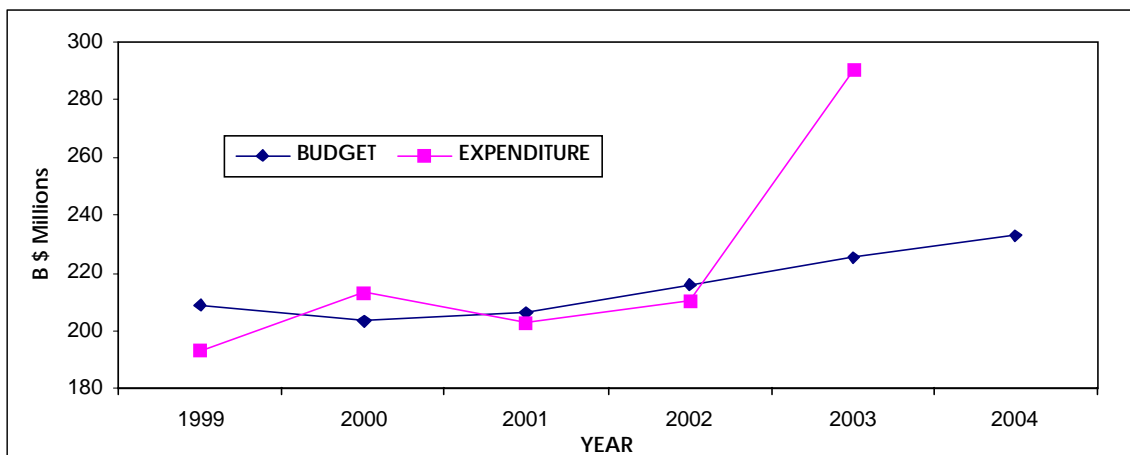
GDP - Gross Domestic Product

... - Not available

Source :

(Budget) - Budget and Tender Section, Ministry of Finance

(Expenditure) - Ledger Section, Treasury Department





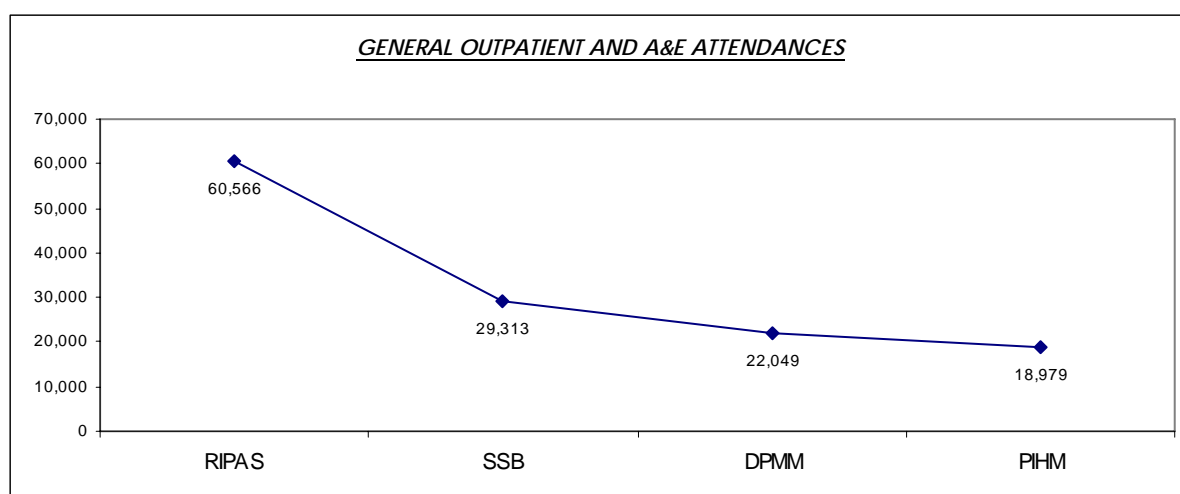
## **HOSPITAL SERVICES STATISTICS**

The Department of Medical Services is responsible for the delivery of hospital services in all four districts. The four government hospitals plus one private hospital (Jerudong Park Medical Centre) are serving the population of Brunei Darussalam with an average turnover of patients per bed of 41 during 2004. The total inpatient load is roughly 37,500 compared with nearly 131,000 general outpatient plus A&E attendances during the year.

ACTIVITIES	RIPAS	SSB	DPMM	PHIM	TOTAL
<b><u>OUTPATIENT ACTIVITIES</u></b>					
General Outpatient and A&E Attendances	60,566 *	29,313 *	22,049 *	18,979	130,907
Specialist Outpatient Attendances	238,484	82,411	54,202	10,884	385,981
<b><u>INPATIENT ACTIVITIES</u></b>					
Available Beds	598	191	85	34	908
Admissions	27,158	6,565	3,051	733	37,507
Discharges & Deaths	26,760	6,503	2,725	576	36,564
Deaths only	418	75	2	5	500
Patient Days	131,934	29,190	8,649	1,895	171,668
Day Patients	47,351	5,893	0	233	53,477
<b><u>PERFORMANCE INDICES</u></b>					
Average Number of Inpatients / Day	361	80	24	5	470
% Occupancy	60	42	28	15	52
Average Duration of Stay (Days)	4.9	4.4	3.2	3.3	4.6
Average Turnover of Patients / Bed	45	34	32	17	41
Average Outpatient Attendances / Day	166	60	80	52	359

Note :

\* - A & E only



## **HEALTH SERVICES STATISTICS**

The Department of Health Services, Ministry of Health is responsible for providing public health services in the country. With its vision, "Together Achieving A Healthy Nation With Full Community Participation", the mission of the department is to promote well-being and prevent ill health. Towards achieving the vision and fulfilling the mission of the department, various activities and programmes have been developed and established under three main services: Community Health Services, Environmental Health Services and Dental Health Services.

<b>WORKLOAD INDICATORS</b>	<b><u>2002</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>
1. Ante Natal attendances	60,465	56,660	55,816
2. Post Natal attendances	9,321	9,974	9,785
3. Child (<5) attendances	139,051	140,129	138,929
4. General O/P attendances in Health Centres / Clinics *	345,504	432,110	330,754
5. No. of students medically examined	21,642	15,645	14,756
6. No. of screening tests on students	30,158	26,826	27,376

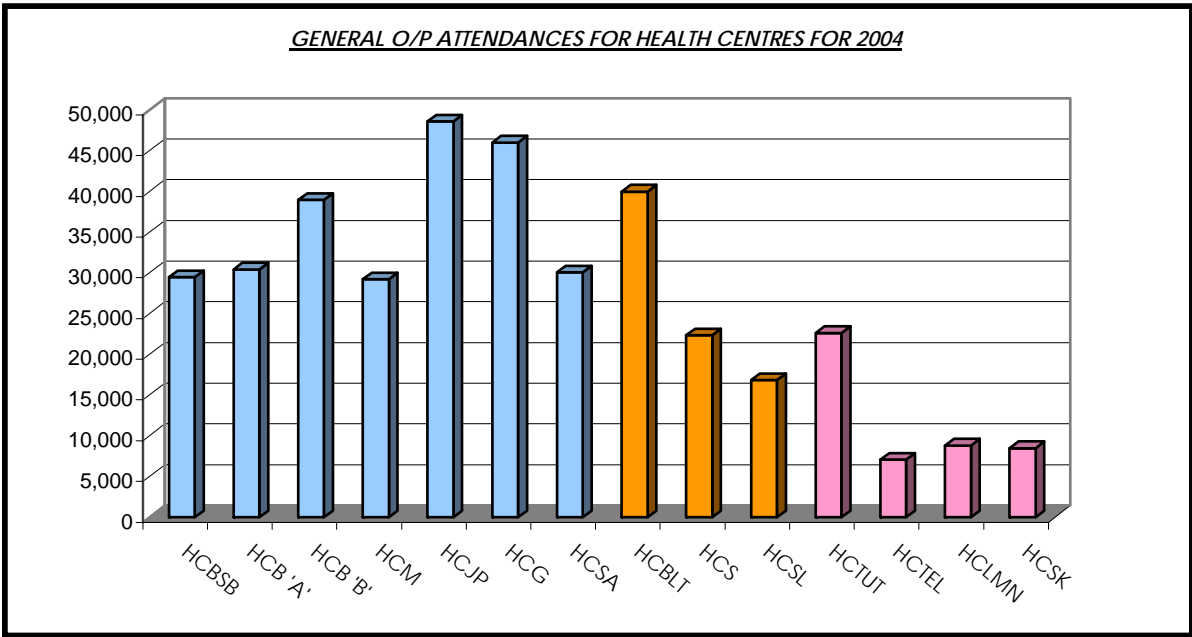
Note :

\* - including extended hours services

<b>IMMUNISATION COVERAGE</b>	<b><u>2002</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>
<b>% of infants immunised against</b>			
- Tuberculosis	99.0	95.0	99.4
- Diphtheria / Tetanus / Whooping Cough	94.0	92.0	91.7
- Poliomyelitis	99.0	99.0	92.2
- Hepatitis B	97.0	95.0	99.2
- <b>Measles, Mumps and Rubella</b>	<b>99.0</b>	<b>98.0</b>	<b>101.1</b>
<b>% of pregnant women immunised against</b>			
- Tetanus	79.0	69.3	47.4

Note :

**Red text** – Millennium Development Goals (MDGs) Indicators



**BRUNEI MUARA DISTRICT**

- HCBSB : BSB Health Centre
- HCB ' A' : Berakas 'A' Health Centre
- HCB ' B' : Berakas 'B' Health Centre
- HCM : Muara Health Centre
- HCJP : Jubli Perak Health Centre
- HCG : Gadong Health Centre
- HCSA : PAP Hjh Rashidah Sa'adatul Bolkiah Health Centre

**BELAIT DISTRICT**

- HCBLT : Belait Health Centre
- HCS : Seria Health Centre
- HCSL : Sungai Liang Health Centre

**TUTONG DISTRICT**

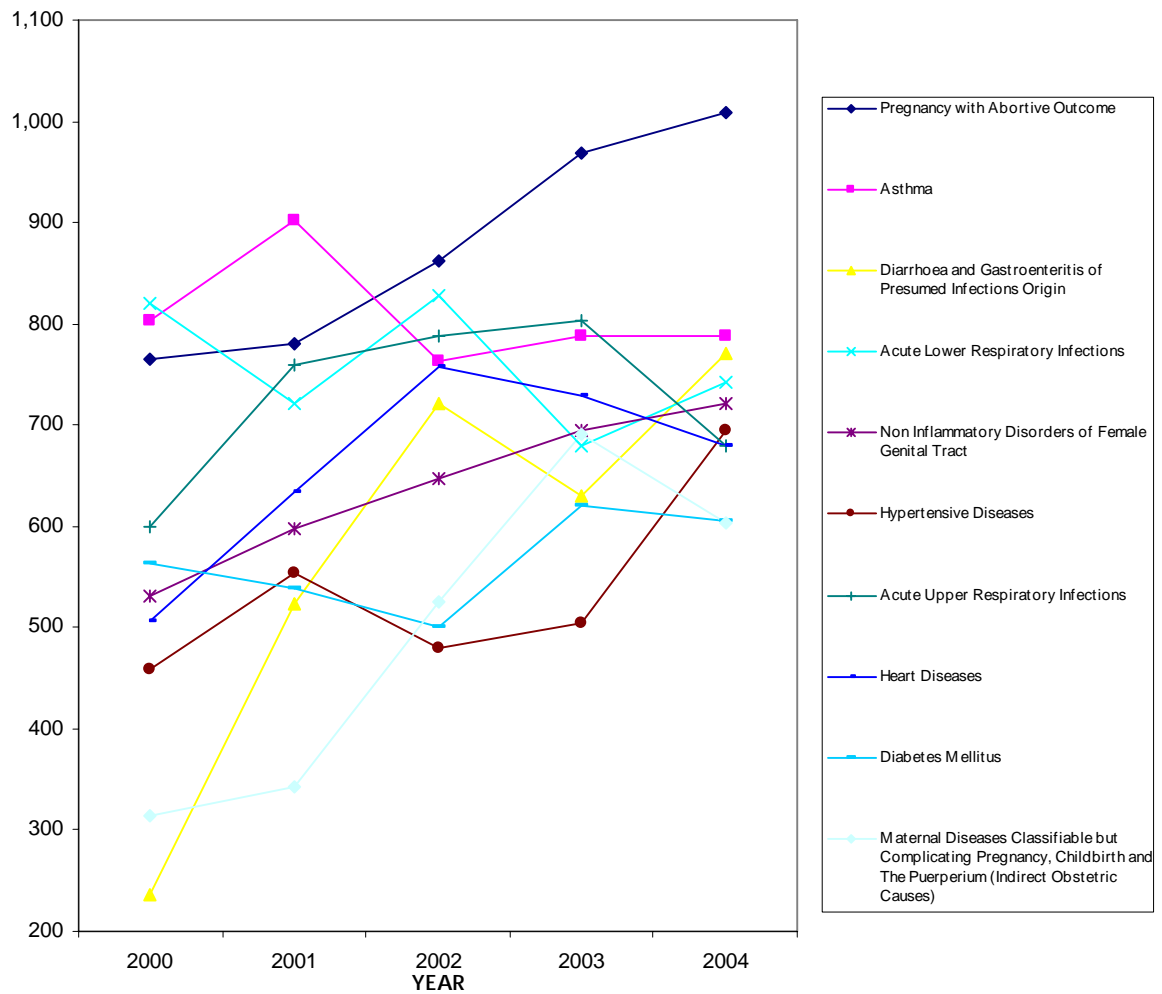
- HCTUT : Tutong Health Centre
- HCTEL : Telisai Health Centre
- HCLMN : Lamunin Health Centre
- HCSK : Sungai Kelugos Health Centre

## INPATIENT MORBIDITY TRENDS

The leading causes of inpatient morbidity are presented as follows:

	2000	2001	2002	2003	2004
Pregnancy With Abortive Outcome	765	780	862	969	1,009
Asthma	804	902	763	787	788
Diarrhoea and Gastroenteritis of Presumed Infections Origin	237	524	721	630	771
Acute Lower Respiratory Infections	821	722	828	679	743
Non Inflammatory Disorders of Female Genital Tract	531	597	647	694	722
Hypertensive Diseases	459	554	479	505	695
Acute Upper Respiratory Infections	600	760	788	803	680
Heart Diseases	507	634	758	729	680
Diabetes Mellitus	564	539	500	621	606
Maternal Diseases Classifiable but Complicating Pregnancy, Childbirth and The Puerperium (Indirect Obstetric Causes)	314	342	525	690	604

**SINGLE LEADING CAUSES OF INPATIENT MORBIDITY**

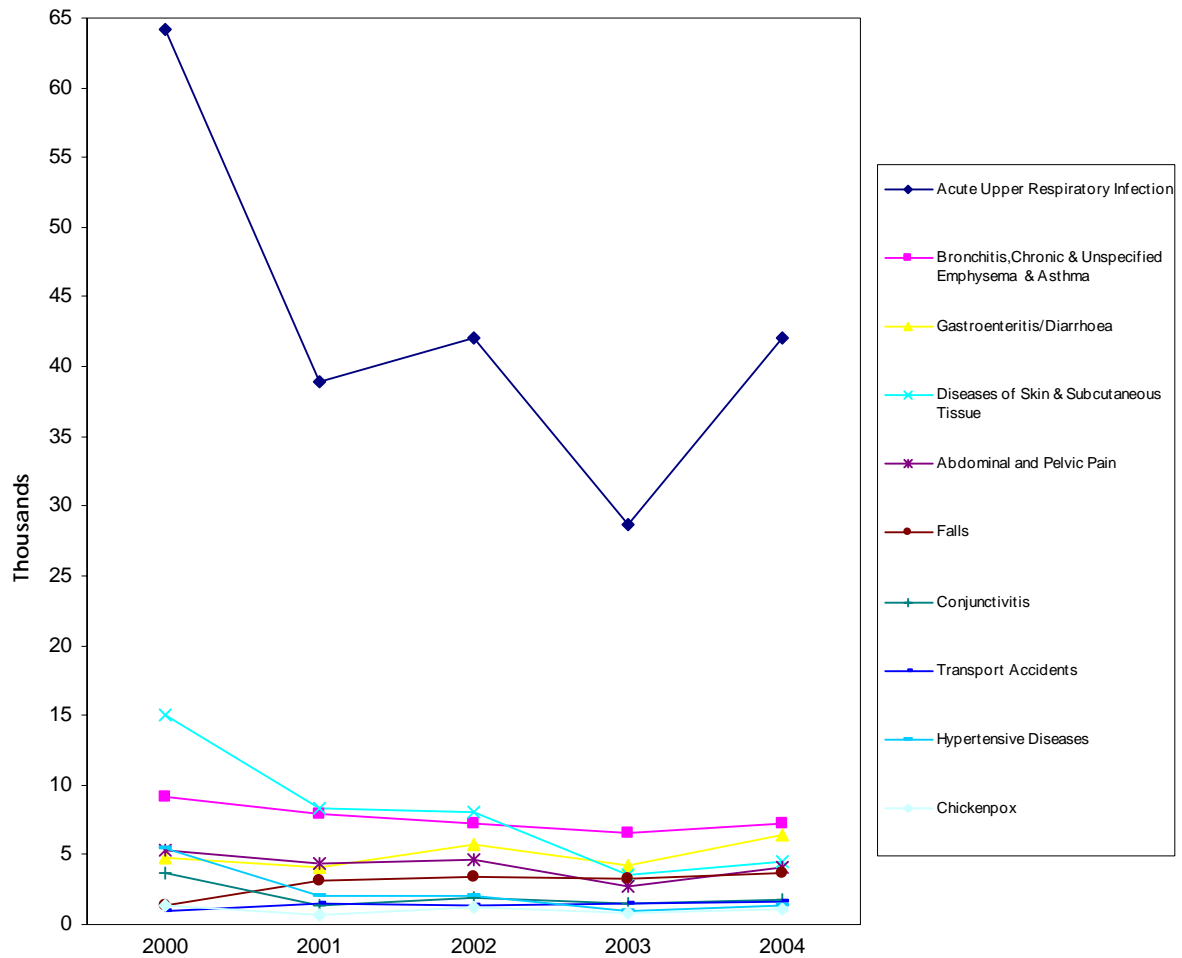


## OUTPATIENT MORBIDITY TRENDS

The leading causes of outpatient morbidity are presented as follows:

	2000	2001	2002	2003	2004
Acute Upper Respiratory Infection	64,178	38,865	42,069	28,666	41,996
Bronchitis, Chronic and Unspecified Emphysema & Asthma	9,118	7,957	7,189	6,538	7,171
Gastroenteritis / Diarrhoea	4,804	4,101	5,738	4,226	6,389
Diseases of Skin & Subcutaneous Tissue	14,988	8,326	8,023	3,483	4,567
Abdominal and Pelvic Pain	5,259	4,395	4,606	2,701	4,051
Falls	1,372	3,197	3,354	3,266	3,710
Conjunctivitis	3,666	1,364	1,901	1,516	1,774
Transport Accidents	1,024	1,515	1,372	1,456	1,648
Hypertensive Diseases	5,501	2,067	1,989	927	1,414
Chickenpox	1,390	671	1,187	856	1,145

### SINGLE LEADING CAUSES OF OUTPATIENT MORBIDITY



## NOTIFIABLE DISEASES

The most common communicable diseases reported during 2004 are chickenpox, gastroenteritis, gonococcal infection, chlamydial infection and food poisoning.

DISEASES	B/M	TUT	TEMB	KB	TOTAL
<b><i>Food and Water Borne Diseases</i></b>					
Cholera	0	0	0	0	0
Para/Typhoid Fever	6	0	0	0	6
Salmonella Infection	39	6	4	10	59
Dysentery	0	0	0	0	0
Food Poisoning	62	6	0	1	69
Gastroenteritis	667	252	0	4	923
Hepatitis A	8	0	0	1	9
<b><i>Person to Person Transmitted Diseases</i></b>					
Chickenpox	1,276	637	140	214	2,267
Leprosy	4	0	0	0	4
Tuberculosis	113	31	6	31	181
Meningitis	5	0	0	1	6
<b><i>Vaccine Preventable Diseases</i></b>					
Diphtheria	0	0	0	0	0
Whooping Cough	1	0	0	1	2
Tetanus	0	0	0	1	1
Poliomyelitis	0	0	0	0	0
Measles	11	2	0	2	15
Mumps	10	0	3	10	23
Rubella	0	1	0	0	1
Hepatitis B	1	0	0	0	1
Tetanus Neonatorum	0	0	0	0	0
<b><i>Sexually Transmitted Diseases</i></b>					
AIDS / HIV *	1	0	0	0	1
Syphilis (All Forms)	6	1	0	0	7
Gonococcal Infection	133	9	4	1	147
Chancroid	2	0	1	1	4
Ophthalmia Neonatorum	5	1	0	0	6
Non Specific Urethritis	6	1	0	0	7
Chlamydial Infection	122	5	0	10	137
Hepatitis C	5	2	0	0	7
<b><i>Vector Borne Diseases</i></b>					
Plague	0	0	0	0	0
Malaria	9	1	2	1	13
Filariasis	1	6	1	0	8
Dengue / DHF	21	13	0	2	36
Yellow Fever	0	0	0	0	0
Viral Encephalitis	1	0	0	0	1
Typhus	0	0	0	0	0
Leptospirosis	1	0	0	0	1
<b><i>Others Notifiable Diseases</i></b>					
Septicaemia	0	0	0	0	0
Puerperal Infection	1	0	0	0	1
Conjunctivitis (Chlamydial)	7	0	0	0	7
Others	11	2	0	38	51
<b>TOTAL</b>	<b>2,535</b>	<b>976</b>	<b>161</b>	<b>329</b>	<b>4,001</b>

Note:

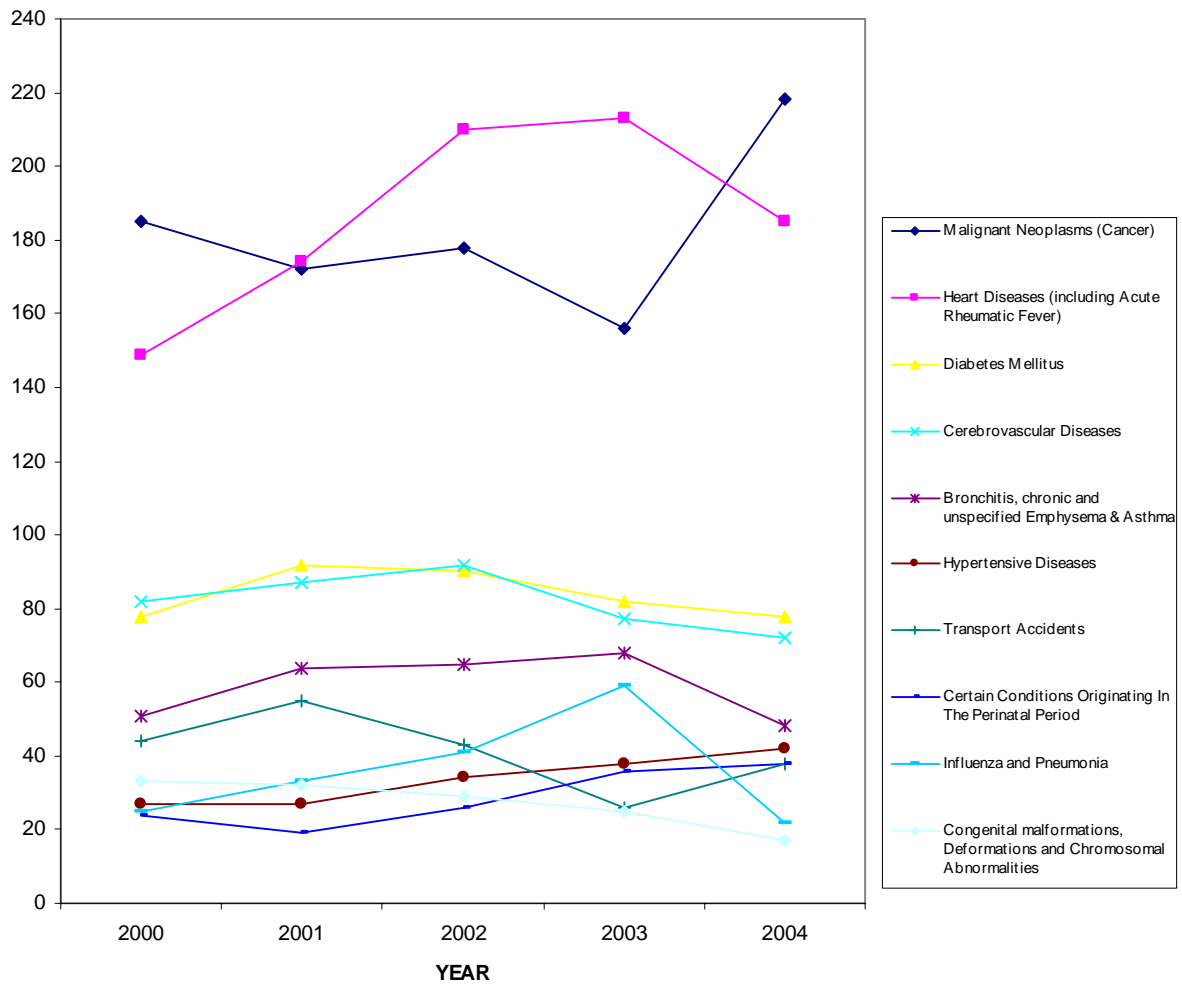
\* Indicate incidence of AIDS / HIV cases among local only.

## TOP 10 MORTALITY TRENDS

The leading causes of death are presented as follows:

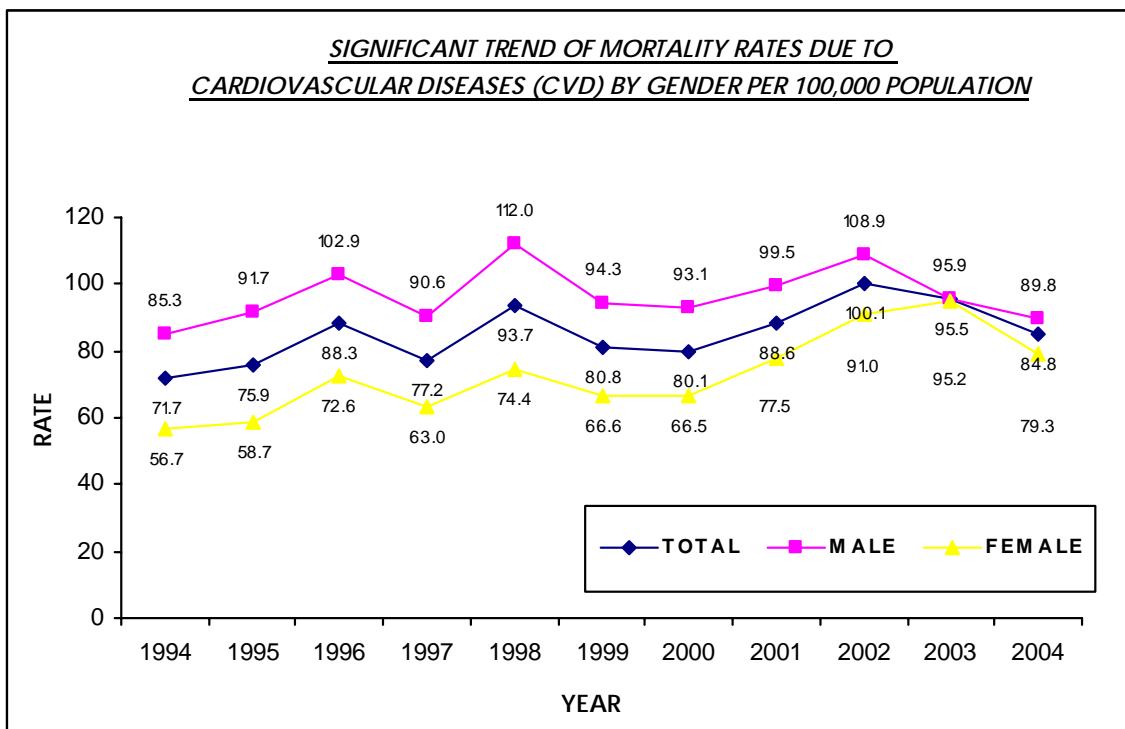
	2000	2001	2002	2003	2004
Malignant Neoplasms (Cancer)	185	172	178	156	218
Heart Diseases (including Acute Rheumatic Fever)	149	174	210	213	185
Diabetes Mellitus	78	92	90	82	78
Cerebrovascular Diseases	82	87	92	77	72
Bronchitis, Chronic and Unspecified Emphysema & Asthma	51	64	65	68	48
Hypertensive Diseases	27	27	34	38	42
Transport Accidents	44	55	43	26	38
Certain Conditions Originating In The Perinatal Period	24	19	26	36	38
Influenza and Pneumonia	25	33	41	59	22
Congenital Malformation, Deformations and Chromosomal Abnormalities	33	32	29	25	17

TOP 10 CAUSES OF DEATH



## CARDIOVASCULAR DISEASES (CVD)

ICD-10 CODE TYPE OF DISEASES		NO. OF DEATHS (RATE / 100,000 Population)				
1	100-109, 120-152 <b>HEART DISEASES</b>		185 (51.4)			
	I	100-109 <b>ACUTE RHEUMATIC FEVER &amp; CHRONIC RHEUMATIC HEART DISEASES</b>		2 (0.6)		
	II	120-125 <b>ISCHAEMIC HEART DISEASES</b>		105 (29.2)		
		(i)			121-122 <b>ACUTE MYOCARDIAL INFARCTION</b>	64 (17.8)
		(ii)			120, 123-125 <b>OTHER ISCHAEMIC DISEASES</b>	41 (11.4)
III	126-152 <b>DISEASES OF PULMONARY CIRCULATION &amp; OTHER FORMS OF HEART DISEASES</b>		78 (21.7)			
2	110-115 <b>HYPERTENSIVE DISEASES</b>		42 (11.7)			
3	160-169 <b>CEREBROVASCULAR DISEASES</b>		72 (20.0)			
4	170-198 <b>OTHER DISEASES OF THE CIRCULATORY SYSTEM</b>		6 (1.7)			
	I	170 <b>ATHEROSCLEROSIS</b>		0 (0.0)		
	II	171-198 <b>OTHERS</b>		6 (1.7)		
1 to 4	100-198 <b>ALL CARDIOVASCULAR DISEASES</b>		305 (84.8)			
<b>ALL CAUSES</b>			1010 (280.8)			

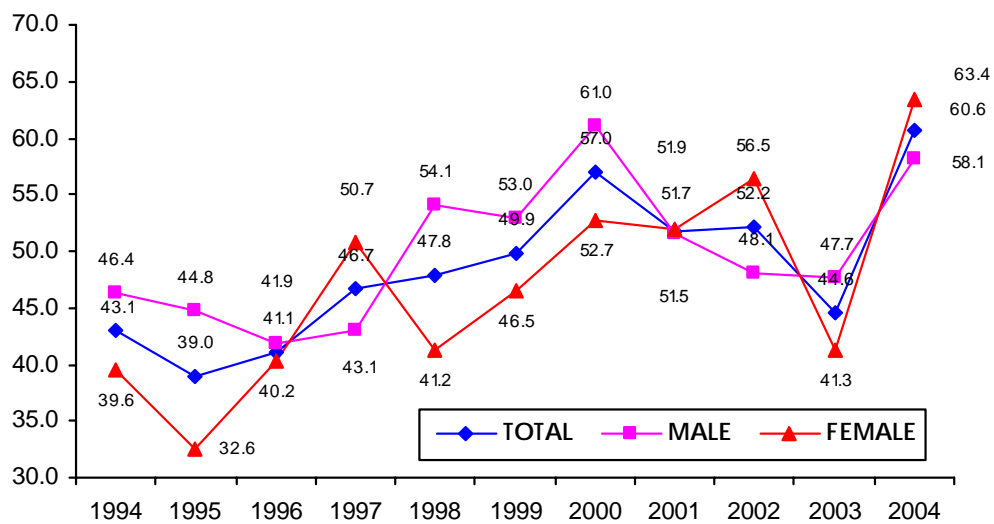




## CANCER

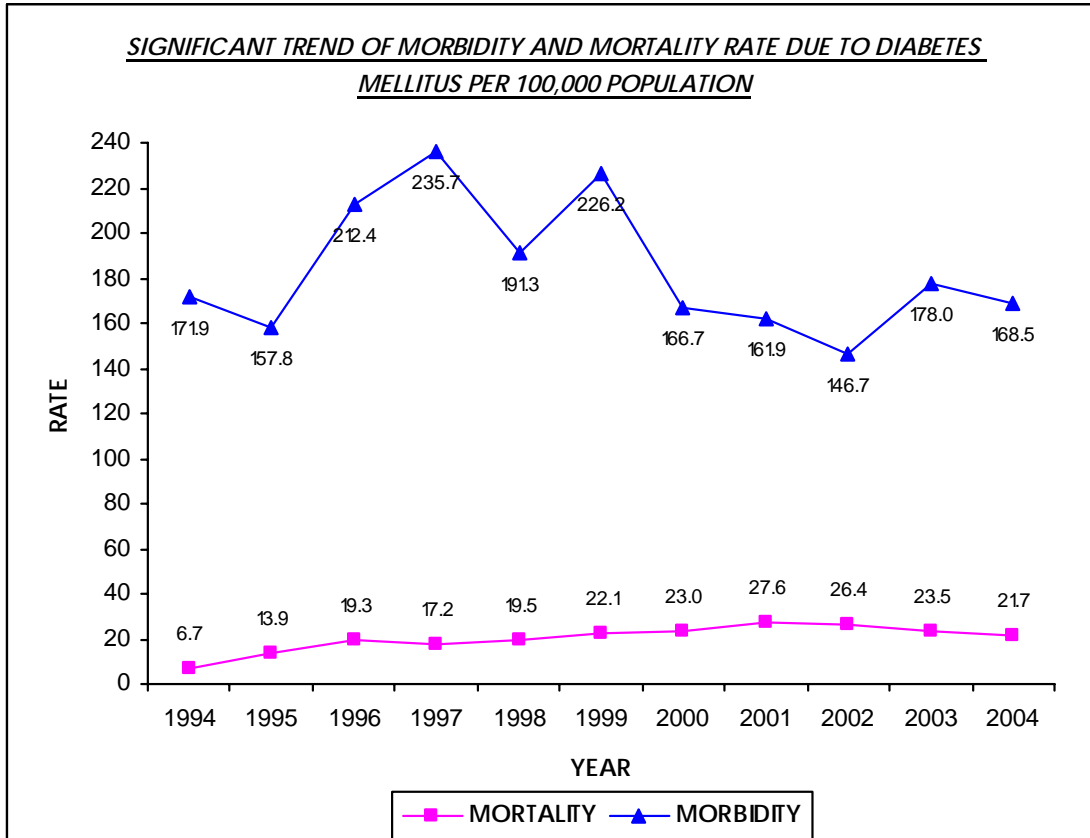
	NO. OF DEATHS	RATE / 100,000 Popn.
TRACHEA, BRONCHUS AND LUNG	36	10.0
STOMACH	21	5.8
LIVER AND INTRAHEPATIC BILE DUCTS	19	5.3
RECTUM AND ANUS	17	4.7
BREAST	14	3.9
NON-HODGKIN'S LYMPHOMA	12	3.3
LIP, ORAL CAVITY AND PHARYNX	11	3.1
MENINGES, BRAIN AND OTHER PART OF CNS	10	2.8
CERVIX UTERI	9	2.5
PROSTATE	7	1.9
LEUKAEMIA	6	1.7
OVARY	6	1.7
REMAINDER	50	13.9
<b>TOTAL</b>	<b>218</b>	<b>60.6</b>

**SIGNIFICANT TREND OF CANCER DEATH RATES BY GENDER**  
**PER 100,000 POPULATION**



## *DIABETES MELLITUS*

YEAR	MORTALITY	INPATIENT MORBIDITY	RATE PER 100,000 POPULATION	
			MORTALITY	MORBIDITY
1994	19	489	6.7	171.9
1995	41	467	13.9	157.8
1996	59	648	19.3	212.4
1997	54	741	17.2	235.7
1998	63	618	19.5	191.3
1999	73	748	22.1	226.2
2000	78	564	23.0	166.7
2001	92	539	27.6	161.9
2002	90	500	26.4	146.7
2003	82	621	23.5	178.0
2004	78	606	21.7	168.5

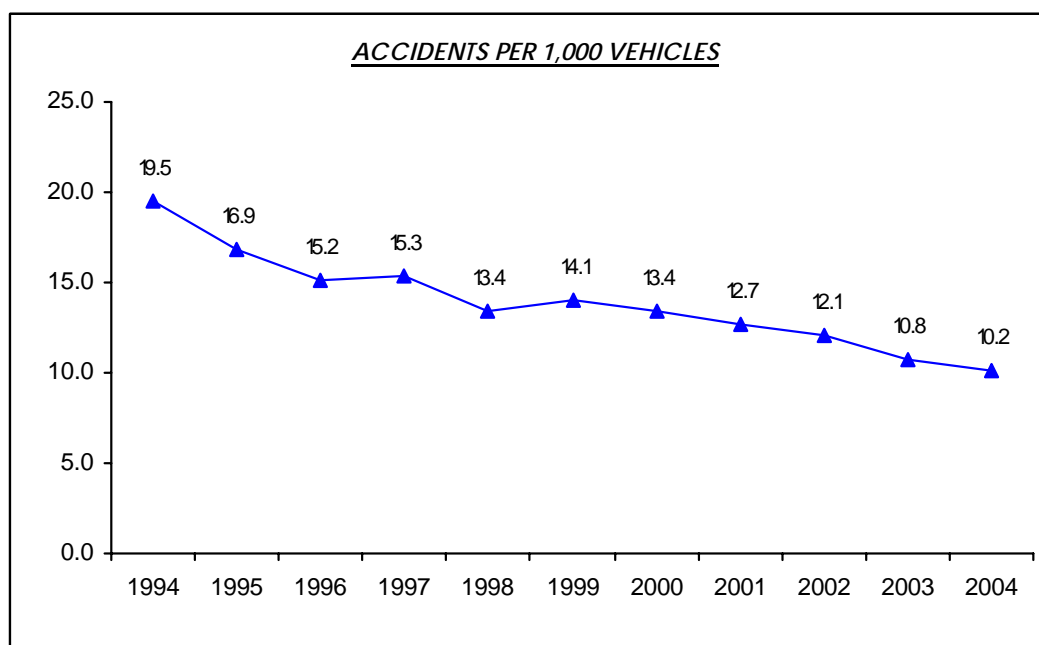


## **ROAD TRAFFIC ACCIDENTS**

Y E A R	ACCIDENTS	KILLED	INJURED	NUMBER INJURED FOR EACH PERSON KILLED	CASE FATALITY RATE % (CFR)	REGISTERED VEHICLES
1994	3,130	56	495	8.8	10.2	160,469
1995	2,834	58	393	6.8	12.9	167,790
1996	2,693	64	363	5.7	15.0	177,599
1997	2,945	61	404	6.6	13.1	192,007
1998	2,692	50	531	10.6	8.6	200,172
1999	2,900	45	515	11.4	8.0	206,267
2000	2,861	41	554	13.5	6.9	213,127
2001	2,794	45	537	11.9	7.7	219,949
2002	2,801	40	549	13.7	6.8	231,656
2003	2,625	28	645	23.0	4.2	244,067
2004	2,625	36	620	17.2	5.5	258,435

Source :  
The Royal Brunei Police Force

The accidents statistics per 1,000 vehicles show significant downward trend probably due to the application of preventive measures. However the case fatality rates for road traffic accidents are still high compared to other developed countries.



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