

Chapter 14

Health and Vital Statistics

Summary of Health and Vital Statistics

This chapter presents health and vital statistics on registered births, registered deaths, population-physician ratio, public health services, crude birth rate, crude death rate, and infant mortality rate.

Crude Birth Rate (CBR) is the ratio of the number of births to the number of population in a particular year. It is expressed as number per one thousand population.

Crude Death Rate (CDR) is the ratio of the number of deaths to the number of population in a particular year. It is also expressed as number per one thousand population.

Infant Mortality Rate (IMR) is the ratio of the number of infant deaths under one year of age to the number of live births in a particular year. It is expressed as number per thousand live births.

Registered live births for 2003 was 312; CBR was 15.4; registered deaths was 136; CDR was 6.7; infant deaths was 6; IMR was 6.4; and 2 Fetal Deaths.

The number of patients admitted to the Belau National Hospital declined from 2,994 in 2002 to 2,841 in 2003.

The number of births in Palau increased during the first part of the 1990s, then decreased, and now seems to be increasing again. The crude birth rate of about 15 per 1000 population is very low by world standards, as is the death rate of about 7 per 1000. Palau has very few infant deaths, so a very low infant mortality rate.

Table 14.1 Vital Statistics: 1990 to 2003

Year	Total Population	Live Births	Crude Birth Rate	Crude Deaths	Crude Death Rate	Infant Deaths	Infant Mort. Rate	Fetal Deaths *
1990 Census Year	15,122	326	21.6	117	7.7	8	24.5	48
1991	15,575	347	22.3	102	6.5	3	8.6	33
1992	15,969	377	23.6	116	7.3	10	26.5	28
1993	16,361	355	21.7	116	7.1	8	22.5	44
1994	16,744	373	22.3	129	7.7	8	21.4	23
1995 Census Year	17,225	399	23.2	110	6.4	6	15.0	20
1996	17,600	355	20.2	144	8.2	8	22.5	44
1997	18,061	330	18.3	121	6.7	1	3.0	7
1998	18,494	280	15.1	125	6.8	3	10.7	9
1999	18,882	250	13.2	131	6.9	5	20.0	10
2000 Census Year	19,129	278	14.5	125	6.5	6	21.6	34
2001	19,626	300	15.3	138	7.0	5	16.7	47
2002	19,976	259	13.0	134	6.7	6	23.2	2
2003	20,304	312	15.4	136	6.7	2	6.4	2

Source: Bureau of Public Health, Ministry of Health & Planning Office, Ministry of Finance, Republic of Palau

* Data on fetal deaths during 1990-1996 include abortions.

Notes: (1) Population for 1990, 1995 and 2000 are Census figures; population figures for other years are projected by the U.S. Bureau of the Census.

(2) Crude birth rates and crude death rates are the numbers of live births and deaths per 1000 population.

(3) Infant mortality rate is the number of infant deaths under one year of age divided by the number of live births occurring that year; it is shown as per thousand live births.

Figure 14.1 Registered Live Births

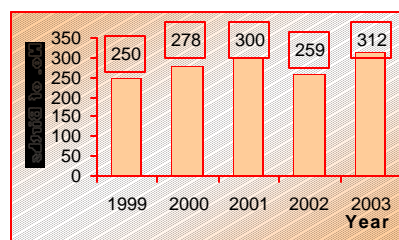


Figure 14.2 Infant Deaths

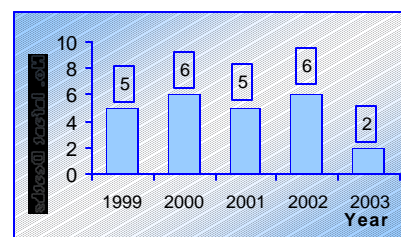


Table 14.2 Registered Live Births by Month: 1997 to 2003

Month	L I V E B I R T H S						
	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
January	25	9	26	17	21	20	21
February	23	22	14	19	25	22	27
March	31	29	23	19	29	24	27
April	31	27	17	28	25	19	17
May	33	28	26	18	27	26	22
June	15	26	15	24	26	24	29
July	30	16	25	26	22	19	27
August	28	29	18	29	32	24	33
September	28	26	30	22	16	17	25
October	29	27	11	18	33	19	23
November	30	15	23	31	25	21	35
December	27	26	22	27	19	24	26

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Table 14.3 Registered Live Births by Type: 1997 to 2003

Birth Type	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
Single	330	278	246	277	297	253	310
Multiple	-	2	4	1	3	6	2

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Palau has few multiple births, about the world average.

Table 14.4 Registered Live Births by Site: 1997 to 2003

Birth Site	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
Hospital	330	280	250	278	297	259	311
Dispensary	-	-	-	-	-	-	1
Home	-	-	-	-	3	-	-
Others	-	-	-	-	-	-	-

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Almost all births now occur at the hospital because of its easy access to most of the States and the excellent facilities.

Table 14.5 Registered Live Births by Attendant: 1997 to 2003

Attendant	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
Physician	36	280	248	257	160	94	128
Grad. Nurse	20	-	-	-	-	-	64
Midwife	273	-	2	21	140	165	120
Health Assistant	-	-	-	-	-	-	-
Unknown	1	-	-	-	-	-	-

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Palau has recently seen a trend towards having midwives as attendants to births, particularly in 2001, 2002, and 2003.

Table 14.6 Registered Live Births by Age of Mother: 1997 to 2003

Mother's Age	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
Less than 15	1	1	-	-	-	2	-
15 to 19 yrs	38	26	20	16	15	23	21
20 to 24 yrs	79	68	40	57	60	44	71
25 to 29 yrs	72	62	70	76	90	65	81
30 to 34 yrs	83	73	77	71	72	67	63
35 to 39 yrs	46	37	33	37	50	44	56
40 to 44 yrs	11	13	10	20	13	14	16
45 yrs. & over	-	-	-	1	-	-	4

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Few teenagers or elderly women are currently having births. Almost all births occur during the 20s and 30s.

More male than female babies are born in Palau, as is true in most countries.

Table 14.7 Registered Live Births by Sex and Age of Mother: 1998 to 2003

	Total	A G E G R O U P						
		15-19	20-24	25-29	30-34	35-39	40-44	45-49
Total	1679	123	340	444	423	258	85	6
1998	280	26	68	62	73	38	13	-
1999	250	20	40	70	77	33	10	-
2000	278	16	57	76	71	37	20	1
2001	300	15	60	90	72	50	12	1
2002	259	25	44	65	67	44	14	-
2003	312	21	71	81	63	56	16	4
Male								
Total	891	68	182	233	233	129	43	3
1998	157	11	32	43	43	20	8	-
1999	141	14	29	32	44	16	6	-
2000	149	8	29	47	33	21	10	1
2001	139	6	34	40	34	21	3	1
2002	142	16	24	31	44	22	5	-
2003	163	13	34	40	35	29	11	1
Female								
Total	788	55	158	211	190	129	42	3
1998	123	15	36	19	30	18	5	-
1999	109	6	11	38	33	17	4	-
2000	129	8	28	29	38	16	10	-
2001	161	9	26	50	38	29	9	-
2002	117	9	20	34	23	22	9	-
2003	149	8	37	41	28	27	5	3

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

The majority of births continue to be to Palau-born women. The second largest group is mothers born in the Philippines – about 10 percent of the births each year. FSM born women had 11 births in Palau in 2003.

Table 14.8 Registered Live Births by Mother's Place of Birth: 1997 to 2003

Place of Birth	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
Palau	269	236	221	232	254	216	262
FSM	-	-	5	8	1	3	11
Guam	3	-	-	1	-	1	-
Marshall Islands	1	2	-	1	1	-	-
Philippines	39	29	19	28	34	26	33
China	-	1	2	-	2	4	3
Japan	1	2	2	-	3	3	-
Korea	-	-	-	-	-	-	1
Others	17	10	1	8	5	6	2

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Table 14.9 Registered Live Births by Age of Father: 1997 to 2003

Father's Age	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
Less than 15	-	-	-	-	-	-	-
15 to 19 yrs	12	7	5	6	3	3	6
20 to 24 yrs	52	49	20	33	35	35	50
25 to 29 yrs	60	60	49	63	67	55	56
30 to 34 yrs	78	61	56	53	61	55	76
35 to 39 yrs	54	51	36	47	52	49	59
40 to 44 yrs	28	17	18	25	21	24	29
45 to 49 yrs	12	14	14	12	15	9	17
50 yrs & over	8	6	10	7	12	9	9
Unknown	26	15	42	32	34	20	10

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Fathers tended to be older than mothers for births in Palau, partly because they tend to marry later.

Table 14.10 Registered Live Births by Father's Place of Birth: 1997 to 2003

Father's Place	Y E A R O F B I R T H						
of Birth	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
Palau	282	249	216	233	251	206	256
FSM	-	-	3	4	2	2	8
Marshall's	-	1	-	-	-	-	-
Guam	-	1	-	-	-	-	-
Philippines	20	15	10	13	17	17	22
Taiwan	-	-	-	-	-	-	-
China	1	2	1	-	1	1	1
Korea	-	1	1	-	1	0	3
Japan	2	-	-	-	2	1	2
Others	25	11	19	28	26	32	20

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Table 14.11 Registered Live Births by Previous Live Births: 1997 to 2003

Previous Live	Y E A R O F B I R T H						
Births	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	312
None	286	104	73	93	141	96	127
One	33	70	66	85	55	62	79
Two	5	46	55	59	43	48	51
Three	4	25	25	20	35	26	32
Four	1	15	17	12	14	15	13
Five	1	10	9	6	6	4	6
Six	-	5	5	3	3	1	4
Seven	-	4	-	-	3	2	-
Unknown	-	1	-	-	-	5	-

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

About 87 percent of all births in Palau in 1997 were first births, but this decreased to 37 percent in 2002 and 41 percent in 2003.

More males than females died in each of the years between 1997 and 2003. Palau has very few neonatal and post-neonatal deaths, so most of the deaths are to elderly people.

Table 14.12 Registered Deaths by Age Group and Sex: 1997 to 2003

Age at Death	1997	1998	1999	2000	2001	2002	2003
Total	121	125	131	125	138	134	136
Less than 1	1	3	5	3	4	2	3
1 to 14 years	1	3	4	3	1	3	5
15 to 24 yrs	3	7	3	4	3	10	7
25 to 44 yrs	19	24	22	21	22	20	17
45 to 64 yrs	30	34	41	34	25	38	33
65 yrs & over	63	50	56	60	83	61	71
Unknown	4	4	-	-	-	-	-
Male	65	74	78	74	75	84	79
Less than 1	-	2	3	3	3	1	1
1 to 14 years	-	1	2	1	1	2	4
15 to 24 yrs	2	6	3	4	2	6	4
25 to 44 yrs	15	15	16	16	18	13	12
45 to 64 yrs	21	21	27	24	16	27	29
65 yrs & over	25	26	27	26	35	35	29
Unknown	2	3	-	-	-	-	-
Female	56	51	53	51	63	50	57
Less than 1	1	1	2	-	1	1	2
1 to 14 years	1	2	2	2	-	1	1
15 to 24 yrs	1	1	-	-	1	4	3
25 to 44 yrs	4	9	6	5	4	7	5
45 to 64 yrs	9	13	14	10	9	11	4
65 yrs & over	38	24	29	34	48	26	42
Unknown	2	1	-	-	-	-	-

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Figure 14.3 Registered Deaths: 1999-2003

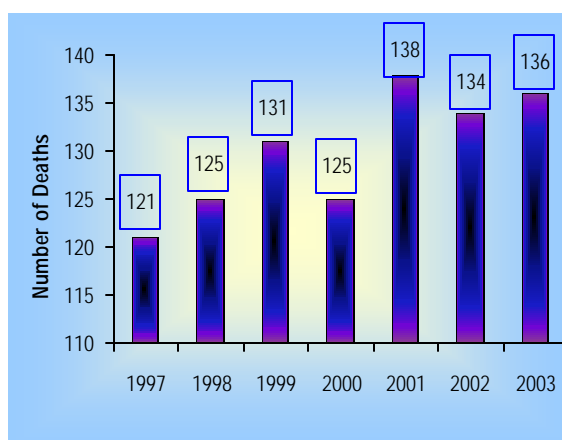


Table 14.13 Registered Fetal Deaths by Age of Mother : 1997 to 2003

Age of Mother	Y E A R S						
	1997	1998	1999	2000	2001	2002	2003
Total	7	9	10	34	5	2	2
Less than 15	-	-	-	-	-	-	-
15 to 19 yrs	-	-	-	1	1	-	-
20 to 24 yrs	1	2	3	7	2	-	-
25 to 29 yrs	-	2	6	15	1	-	1
30 to 34 yrs	2	3	1	6	1	2	1
35 to 39 yrs	4	-	-	5	-	-	-
40 yrs. & over	-	2	-	-	-	-	-

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

In recent years, Palau has seen very few reported fetal deaths, except in 2000.

Table 14.14 Population -Physician Ratio: 1997 to 2003

Particulars	1997	1998	1999	2000	2001	2002	2003
Population	18,061	18,494	18,882	19,129	19,626	19,676	20,304
Physician	25	25	25	25	21	21	21
Population per Physician	722	740	755	765	935	937	967

Sources: Bureau of Public Health, Ministry of Health & Planning Office, Ministry of Finance, Palau

Note: Population figures for 1997-1999 and 2001 are projections of U.S. Bureau of the Census

As the population has increased in recent years, the number of doctors has actually decreased, so that while Palau had one doctor for every 722 people in 1997, there was only one for every 967 people in 2003.

Table 14.15 Hospital Utilization Statistics: 1997 to 2003

Year	Average Daily Census	Occupancy Rate- Bed (%)	Total Admissions	Average Stay (Days)
1997	42	53	2,935	7
1998	39	48	2,979	6
1999	39	49	2,849	6
2000	51	64	3,332	7
2001	52	64	3,436	7
2002	51	64	2,994	6
2003	50	65	2,841	6

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

The average number of in-patients on any day increased between 1997 and 2003, as did the occupancy rate, but the average stay remained about the same.

The number of encounters for public health services remained about the same at the beginning and end the period, but with some fluctuations. Outpatient contacts increased, emergency room visits decreased as did public health encounters.

Table 14.16 Public Health Services: 1998 to 2003

Site of Visit	NUMBER OF ENCOUNTERS					
	1998	1999	2000	2001	2002	2003
Total	96,329	92,168	94,965	82,978	93,818	97,202
Out-Patient Department	33,788	29,284	31,436	39,023	41,681	39,355
General OPD	24,314	20,829	21,632	26,072	30,583	30,676
ENT(ear,nose,throat)	1,150	1,292	1,571	1,664	1,054	1,080
Medical Clinic	135	71	101	105	72	96
HTN/DM(hypertension/diabetic)	2,018	1,422	1,601	1,290	582	629
Eye	626	196	491	255	249	394
Orthopedic	1,064	278	826	526	340	900
OPD Night Clinic	4,481	5,196	5,214	9,111	8,801	5,580
Emergency Room	8,157	9,345	7,962	2,125	1,701	6,146
ER, non-emergency	7,620	9,284	7,917	2,086	1,669	6,018
ER, true emergency	537	61	45	39	32	128
Public Health	30,711	34,930	34,390	20,203	28,040	22,427
Prenatal	3,007	2,608	3,330	2,126	1,264	1,889
Well-Child	3,689	3,563	3,880	2,470	3,384	2,150
Communicable Disease	10,470	10,090	5,558	2,731	3,697	2,379
Postnatal	440	394	504	265	198	375
GYN (gynecology)	839	1,052	1,228	601	1,959	2,001
Physical Examination	5,261	5,404	5,233	1,611	3,035	2,223
Sexually Transmitted Disease	432	287	385	217	401	260
Geriatric	246	62	18	-	30	181
Family Planning	2,278	2,165	2,335	1,484	2,618	1,518
Immunization	1,855	1,321	2,359	733	1,052	1,228
CHC Dental	554	1,926	4,365	1,138	-	-
Dental Outreach	1,133	5,399	4,454	6,687	9,040	7,933
Public Health Night Clinic	507	659	741	140	1,362	290
Home	5,378	2,155	2,217	1,613	3,245	2,163
Surgical Clinic	1,323	703	997	476	98	891
Physical Therapy	3,954	2,605	2,937	3,305	2,239	2,756
Dispensary	250	115	48	-	-	2,801
Hemodialysis	2,677	2,477	2,993	2,615	2,523	3,963
Field Visit	3,010	1,723	944	48	102	1,112
BNH Dental	6,581	7,371	7,273	8,556	4,430	8,384
Other, Unspecified	500	1,460	3,768	5,014	9,759	7,204

Source: Bureau of Public Health, Ministry of Health, Republic of Palau

Figure 14.4 Hospital Admissions Statistics: 1999 - 2003

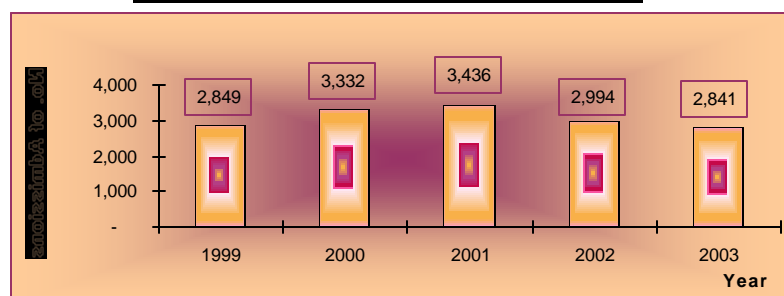


Table 14.17 Registered Live Births by Month and Sex: 1997 to 2003

Month of Birth	Y E A R O F B I R T H						
	1997	1998	1999	2000	2001	2002	2003
Total	330	280	250	278	300	259	308
January	25	9	26	17	21	20	21
February	23	22	14	19	25	22	27
March	31	29	23	19	29	24	27
April	31	27	17	28	25	19	17
May	33	28	26	18	27	26	22
June	15	26	15	24	26	24	29
July	30	16	25	26	22	19	27
August	28	29	18	29	32	24	33
September	28	26	30	22	16	17	25
October	29	27	11	18	33	19	23
November	30	15	23	31	25	21	35
December	27	26	22	27	19	24	22
Male	186	157	141	149	139	142	162
January	11	5	15	10	8	13	13
February	13	14	7	9	14	14	9
March	19	20	11	13	12	9	11
April	21	15	8	12	9	10	13
May	16	16	14	7	15	17	10
June	10	13	8	11	12	12	15
July	11	9	17	8	12	9	17
August	15	19	9	18	17	15	12
September	16	13	18	11	8	9	14
October	20	8	7	14	14	11	15
November	18	5	14	16	10	13	22
December	16	20	13	20	8	10	11
Female	144	123	109	129	161	117	146
January	14	4	11	7	13	7	8
February	10	8	7	10	11	8	18
March	12	9	12	6	17	15	16
April	10	12	9	16	16	9	4
May	17	12	12	11	12	9	12
June	5	13	7	13	14	12	14
July	19	7	8	18	10	10	10
August	13	10	9	11	15	9	21
September	12	13	12	11	8	8	11
October	9	19	4	4	19	8	8
November	12	10	9	15	15	8	13
December	11	6	9	7	11	14	11

Source: Bureau of Public Health, Ministry of Health, Republic of Palau