

**SULTANATE OF OMAN  
MINISTRY OF HEALTH**

***ANNUAL STATISTICAL REPORT***

***1986***

**Prepared by : —**

**Directorate of Statistics, Planning and Follow-up  
Ministry of Health, P. O. Box 393  
Muscat - Oman**



H.M. Sultan Qaboos Bin Said, Sultan of Oman

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

This Annual Statistical Report for the year 1986 reflects the great achievements made in providing integrated health services by the Ministry of Health over the years under the directives of His Majesty Sultan Qaboos. The continuing expansion of curative, preventive & promotive services in the Sultanate is reflected throughout the statistical data given in the Report.

The proper planning and the management of the services provided and its supervision depends on the availability of detailed statistics, their study and analysis. It is, therefore, expected that the information given in this Report will help in reaching the goal of providing efficient health services to all people in the Sultanate of Oman.

May God help us to achieve our goal.

**DR. MUBARAK BIN SALEH AL-KHADURI**  
Minister of Health

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## **FOREWORD**

This Annual Statistical Report for the year 1986 contains information on health care delivery system, available physical facilities, manpower & health finances under the Ministry of Health. Available physical facilities and manpower under Ministry of Defence, Royal Oman Police, Petroleum Development Oman and Private Sector are also included.

2. During the year under review, the construction of 630 bedded Royal Hospital in Capital Area was nearing completion. New buildings of 3 hospitals at Wadi Hemli, Wadi Mistal & Wadi Hawasna, health centre at Al-Fayadh, MCH Centres at Bukha & Ibra, Primary Health Care Unit at Khatmat Malahah, Malaria Control Unit at B.B. Bu Hassan, Quarantine Unit at Raysut and accommodation building at Ibn Sina Hospital were completed. Construction was also completed on extension of existing hospitals at Khasab, B.B. Bu Ali & B.B. Bu Hassan.

3. In the field of health manpower, the number of medical & para-medical personnel increased to 5,600 at the end of 1986 as compared to 5,352 during 1985 showing an increase of over 4.6% during 1986. The health budget increased from R.O. 86.0 million in 1985 to R.O. 89.22 million in 1986 showing an increase of over 3.7%. At the end of 1986 there were 1,096 physicians & 3,348 hospital beds in the country. The population per physician was therefore 1,825 and per bed, it was 597.

4. A review of health situation during 1986 shows marked improvement in the control of communicable diseases. The country not only remained free from quarantinable diseases but incidence of many other major communicable diseases decreased considerably. These include dysenteries, brucellosis, leprosy, malaria & most of the diseases under EPI, fewer cases of which have been reported during 1986 as compared to 1985. The coverage under special programmes viz. EPI, Tuberculosis control, Prevention of Blindness, Diarrhoeal diseases control & Malaria control has further been extended to include remote areas.



5. For reorientation of medical personnel and to keep them abreast with the latest knowledge & techniques, various Symposiums, Workshops and Seminars were conducted by the Ministry of Health during the year under review. In the field of Primary Health Care a two-day symposium on PHC was conducted. These gatherings were attended by a large number of medical and para-medical personnel & guest speakers from abroad. Training Courses for public health workers were also arranged.

6. The Ministry of Health, besides strengthening its Primary Health Care Programmes, is presently implementing its Third Five Year Plan (1986-1991) which focuses on expansion of health care services to rural & district areas.

7. This English version of Annual Statistical Report was first printed in 1983. Since then attempts have been made to bring improvements in its presentation and coverage. As room for improvement is always there, your valuable suggestions & comments for further improvement of future reports are most welcome.

**DR. MURTADHA JAFFAR SULEIMAN**  
**Director,**  
**Statistics, Planning & Followup**

## **1. HEALTH CARE DELIVERY SYSTEM IN OMAN**

The Sultanate of Oman occupies most of the south-eastern corner of Arabian Peninsula and has a coast line stretching almost 1,700 kilometers from the Straits of Hormuz in the north to the frontier with the People's Democratic Republic of Yemen. The Musandam Peninsula, the northernmost point of Oman is separated from the main body of the Sultanate by a strip of territory which is part of the United Arab Emirates. The total land area of the country is 300,000 square kilometers which includes 246,000 sq. kms of wadi & desert areas, 45,000 sq. kms of mountains and 9,000 sq. kms of coastal plains. The estimated population is 2 million with an annual population growth rate of 3.1%. The country has following distinct geographical areas :

- (i) Capital Area
- (ii) Al-Batinah
- (iii) Western Hajar
- (iv) Eastern Hajar
- (v) Al-Dhahirah
- (vi) Jau & Buraimi
- (vii) Interior (Al-Joof)
- (viii) Sharqiya
- (ix) Ja'alan
- (x) Masirah & Kuria Muria
- (xi) Dhofar
- (xii) Musandam

2. The Sultanate is divided into 41 Wilayats in addition to Capital Area. The country has 1,898 towns & villages. Oil is still the main source of national income though some industrialization has taken place in recent years. Agriculture & fisheries are also being developed as additional source of national income.

3. The Ministry of Health provides free health care to more than 75% of the population while the Armed Forces, Royal Oman Police and some other

organizations cover a further 15%. The Ministry provides health services through its two departments one for the curative and the other for preventive health services and primary health programmes (See Annex-A). The country is committed to Alma-ata declaration of "Health for all by the year 2000". Increasing emphasis is placed towards achievement of this goal.

#### **4. Levels of Health Care**

4.1 At local level, Health Centres headed by a physician provide simple treatment in out-patient clinic. These centres also provide some preventive services such as vaccination, school visiting & collecting water samples. However the Ministry of Health is considering for up-grading the health centres in order to deliver more comprehensive basic health care.

4.2 Small hospitals also exist at at local level which are of two types. One type of these hospitals have 4 to 18 beds for maternity & paediatrics besides, male & female OPD. The facilities are also shared with Preventive health units to provide preventive services. The other type of hospitals have 24 to 40 beds providing OPD, in-patient, casualty and emergency services. These hospitals also provide preventive services including immunization. MCH, environmental sanitation and school health services.

4.3 At district & Central levels, Curative services are provided by district hospitals with 50 to 100 beds and preventive and public health services are provided by Public Health Units/Compounds.

4.4 The Regional Hospitals with 300 to 400 beds provide Primary, Secondary & tertiary care.

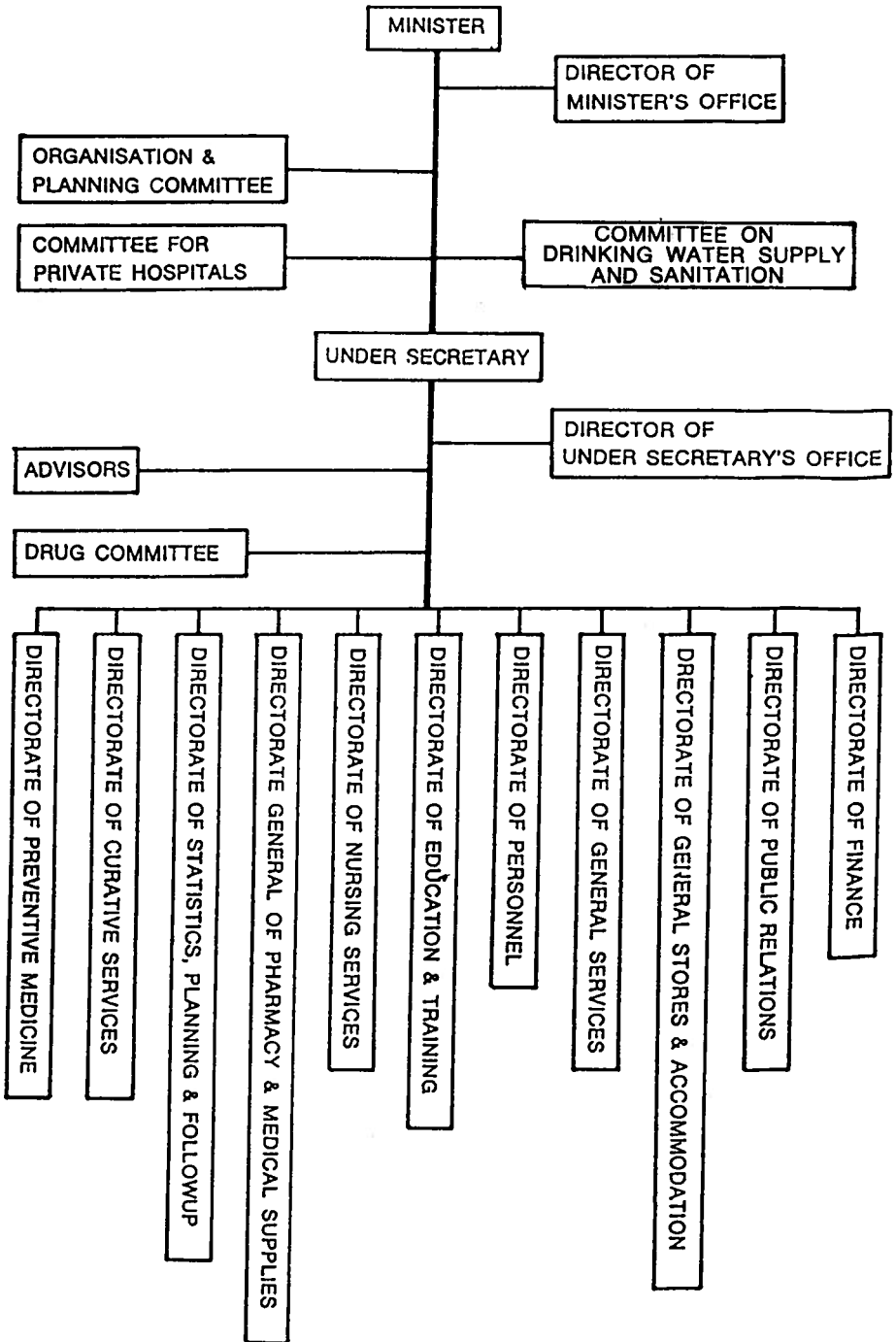
4.5 Preventive services at central level are provided by the following units and sections :

##### **(i) National Health Programme :**

It manages special programmes of Expanded Programme of Immunization, National Tuberculosis Control Programme & Prevention of Blindness Programme.

- (ii) **Diarrhoeal Diseases Control Programme** for prevention and control of diarrhoeal diseases among infants and children.
- (iii) **Malaria Control Programme** for control of Malaria.
- (iv) **MCH Centres** provide pre-natal and post-natal services including immunization, health education, monitoring child growth etc.
- (v) **Bacteriological & chemical laboratories** carry out bacteriological & chemical tests on water & food samples.
- (vi) **Environmental Health Section** supervising the environmental health.
- (vii) **Quarantine section** examines vessels, planes, passengers and imported foodstuffs.
- (viii) **School Health Section** carrying out medical examination & treatment of school children.
- (ix) **Health Education Section** responsible for health education activities through mass media.
- (x) **Oral Hygiene Section** providing preventive services in the field of oral hygiene & dental care.
- (xi) **Vector Control Section** for controlling & eradication of insects, rodents etc. by using insecticides.
- (xii) **Communicable Diseases Section** dealing with the control of communicable diseases.

ORGANISATION CHART OF THE MINISTRY OF HEALTH



## 2. CURATIVE SERVICES

The Directorate of Curative Services is responsible for administration of curative health services which are delivered through a chain of hospitals, health centres, maternity centres & mobile medical teams. In Dhofar the Southern Region integrated curative and preventive health services are delivered through a system of Rural Health Services. 45 hospitals, 76 health centres, 3 maternity centres and a large number of mobile medical teams were functioning in various parts of the country at the end of 1986. The total beds in these units were 2,841.

2. The total number of out-patients attended these units during the year were **7,255,171**, reported 151,678 discharges including 1,846 deaths. The corresponding figures for 1985 were 7,047,143 out-patients, 150,938 discharges including 2,042 deaths. The details of out-patients attendance during 1986 are as under : -

	Hospitals		Health Centres/M.C.s.		Total	
	Number	%	Number	%	Number	%
New cases	2693743	56.5	2127991	85.6	4821734	66.5
Re-attendance	2075356	43.5	358081	14.4	2433437	33.5
Total :	4769099	100	2486072	100	7255171	100

3. Of the 4,821,734 new OPD cases treated during 1986, hospitals accounted for 55.9% and health centres/maternity centres for the rest 44.1%. Percentage for re-attendance cases was 85.3 for hospitals & 14.7 for health centres/maternity centres.

4. Out of 151,678 discharges reported during 1986, males accounted for 57,354 or 37.8% and females for 94,324 or 62.2%. Of the 1,846 deaths, male accounted for 1,144 (62.0%) deaths and females for 702 (38%)

deaths. The age-group of "45 years and over" accounted for 45.2 of total deaths followed by age-group of "under 28 days" for 23.9%. Overall bed occupancy was 87% and average duration of hospital stay was 5 days.

5. The curative units during 1986, reported 41,020 deliveries with 41,386 children born as against 38,599 deliveries with 38,944 children during 1985. 92.0% of the children born alive were reported to be normal and only 7.4% were pre-mature births. The number of operations carried out was 11,410 major and 77,422 minor as compared to 1985 figures of 10,793 & 70,398 respectively. The number of X-rays taken was 276,694 as compared to 268,765 in 1985. 2,521,454 laboratory tests were done as against 2,328,542 during 1985. Dental extractions, fillings & other treatments accounted for 163,216 cases. 32,805 medical checkups & 67,145 eye testings were also done during 1986 by the curative units.

6. During 1986 the following symposiums and workshops were conducted :

- (i) Symposium on Primary Health Care on 12th and 13th March.
- (ii) Paediatric Workshops on 3rd April, 3rd July and 9th October.
- (iii) Workshop on Child Mortality on 5th April.
- (iv) Oncology Workshop on 24th April.
- (v) Pharmacology Workshop on 25th August.
- (vi) Symposium on Control of Infection on 10th and 11th December.
- (vii) Workshop on Managerial Process for National Health Development from 11th to 16th December.

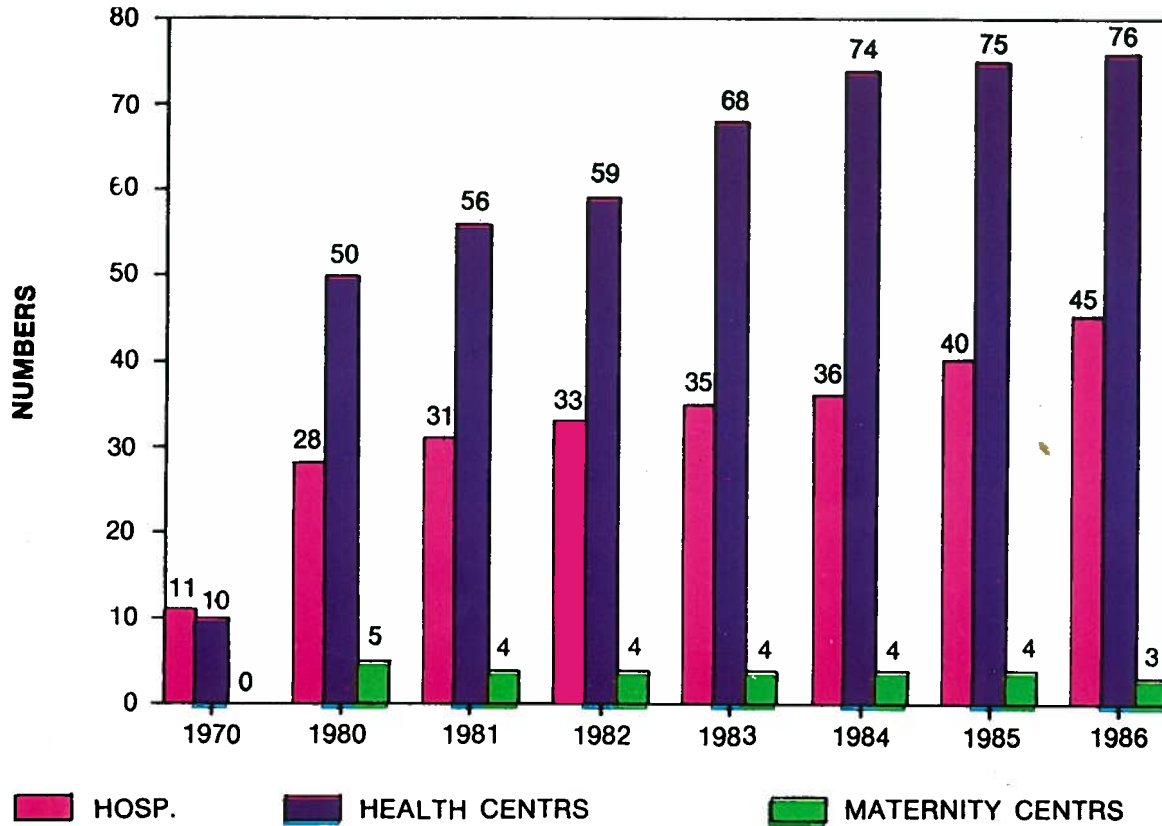
**TABLE 2.1****Regional Distribution of Curative Units — 31.12.1986**

Regions	Hospitals		Maternity Centres		Health Centres	Total	
	Number	Beds	Number	Beds	Number	Number	Beds
Capital Area	6	1044	—	—	3	9	1044
Al-Batinah	8	346	1	4	13	22	350
Interior	7	328	—	—	8	15	328
Eastern	12	467	—	—	19	31	467
Al-Dhahira	4	170	1	4	7	12	174
Southern	5	400	—	—	24	29	400
Northern	3	74	1	4	2	6	78
Total	45	2829	3	12	76	124	2841



# MINISTRY OF HEALTH

## CURATIVE UNITS 1970 — 1986



**TABLE 2.2****Number of Beds in Hospitals and Maternity Centres — 31-12-1986**

Hospitals/Maternity Centres	B E D S		
	Original	Extra	Total
Khoula Hospital	370	108	478
Al-Nahdha	288	49	337
Ar-Rahma	130	15	145
Assaada	16	8	24
Ibn-Sina	60	—	60
Rustaq	71	10	81
Sohar	162	—	162
Sumail	50	30	80
Nizwa	130	30	160
Ibra	50	18	68
Sur	100	16	116
Tanam	74	12	86
Buraimi	50	25	75
Qaboos	300	40	340
Bukha	16	—	16
Baya	24	4	28
Khasab	24	6	30
Saham	40	6	46
Bahla	24	5	29
B.B. Bu Ali	24	17	41
B.B. Bu Hassan	24	10	34
Sinaw	34	7	41
Quriyat	42	6	48
Masirah	24	3	27
Wadi Tayeen	34	—	34

Hospitals/Maternity Centres	B E D S		
	Original	Extra	Total
W.B. Ghaffir	10	1	11
Wadi Sarami	6	4	10
Haima	4	—	4
Izki	20	—	20
W.B. Khalid	6	—	6*
Samad Al-Shaan	14	—	14
Duqum	12	—	12
Tawi Attair	6	—	6
Bidiya	26	—	26
Adam	31	—	31
Jabal Akhdar	4	—	4
Rakhyut	18	—	18
Sudh	18	—	18
Madinat Al-Haq	18	—	18
Wadi Mistal	12	—	12
Wadi Hawasna	12	—	12
Wadi Hemli	12	—	12
Yankul	9	—	9
Mahdha M.C.	4	—	4
Madha	4	—	4
Heebi	4	—	4
<b>Total</b>	<b>2411</b>	<b>430</b>	<b>2841</b>

## HOSPITAL BEDS BY REGIONS - 31.12.1986

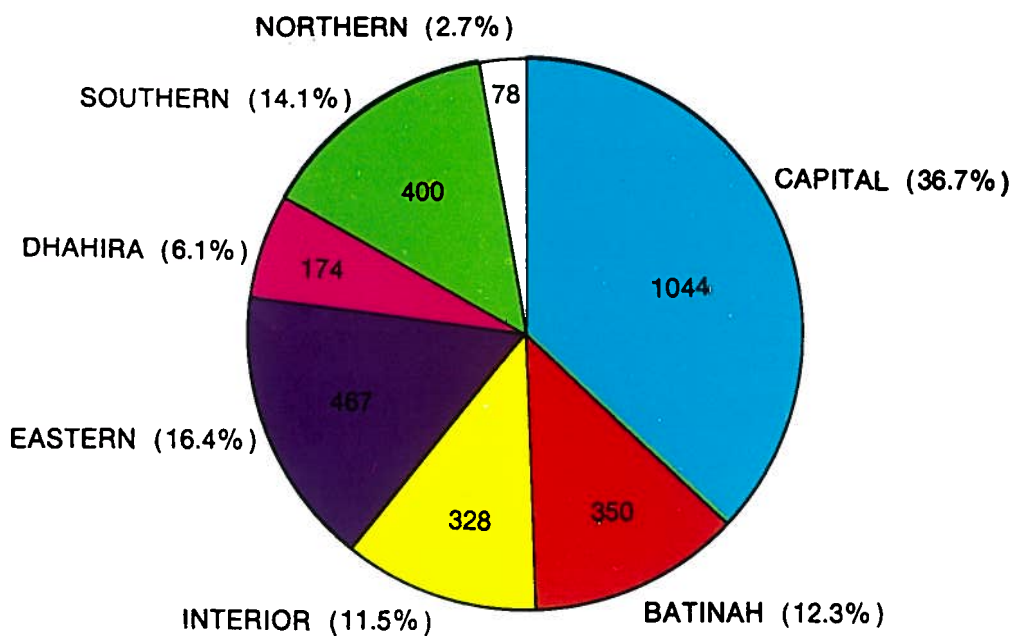


TABLE 2.3

Admissions, Discharges, Bed Occupancy etc. in Hospitals — 1986

Hospitals	Bed as on 31-12-1986	Admissions			Discharges			Patient days	Average Number of Patients per day	Average duration of hospital stay (days)	**Bed Occupancy ( % )
		Male	Female	Total	Male	Female	Total				
Khoula	370	7524	15535	23059	7527	15519	23046	140745	386	6	104
Al-Nahdha	288	6624	4179	10803	6713	4218	10931	76876	211	7	73
Ar-Rahma	130	1835	1469	3304	1811	1451	3262	29739	81	9	63
Assaada	16	—	2155	2155	—	2119	2119	5936	16	3	102
Ibn-Sina	60	437	211	648	417	204	621	30262	83	49	138
Rustaq	71	2250	5980	8230	2260	5963	8223	28749	79	3	111
Sohar	162	5061	9282	14343	5074	9353	14427	54578	150	4	92
Sumail	50	1546	3262	4808	1577	3251	4828	20585	56	4	113
Nizwa	130	3603	4521	8124	3596	4502	8098	43918	120	5	93
Ibra	50	1532	2594	4126	1539	2581	4120	18062	49	4	99
Sur	100	2271	4645	6916	2276	4647	6923	28993	79	4	79
Tanam	74	3607	5300	8907	3650	5281	8931	33270	91	4	123

Hospitals	Bed as on 31-12-1986	Admissions			Discharges			Patient days	Average Number of Patients per day	Average duration of hospital stay (days)	Bed Occupancy ( % )
		Male	Female	Total	Male	Female	Total				
Buraimi	50	1968	2246	4214	1959	2245	4204	18298	50	4	100
Qaboos	300	5617	7791	13408	5491	7674	13165	91876	252	7	84
Bukha	16	154	307	461	154	308	462	1124	3	2	19
Baya	24	1071	1161	2232	1067	1159	2226	6707	18	3	77
Khasab	24	866	1080	1946	866	1085	1951	7116	19	4	81
Saham	40	1335	4713	6048	1329	4702	6031	11425	31	2	78
Bahla	24	892	2235	3127	882	2243	3125	9076	25	3	104
B.B. Bu Ali	24	1617	2540	4157	1598	2529	4127	10923	30	3	125
B.B. Bu Hassan	24	961	1785	2746	956	1786	2742	7551	21	3	86
Sinaw	34	1076	1981	3057	1074	1993	3067	9165	25	3	74
Quriyat	42	783	1802	2585	772	1804	2576	8238	23	3	54
Masirah	24	964	1041	2005	975	1043	2018	6880	19	3	79
Wadi Tayeen	34	928	1326	2254	931	1320	2251	8224	23	4	66
W.B. Ghaffir	10	183	489	672	184	488	672	1948	5	3	53

Hospitals	Beds as on 31-12-1986	Admissions			Discharges			Patient days	Average Number of Patients per day	Average duration of hospital stay (days)	Bed Occupancy ( % )
		Male	Female	Total	Male	Female	Total				
Wadi Sarami	6	141	229	370	145	225	370	767	2	2	35
Haima	4	79	119	198	80	122	202	697	2	3	48
Izki	20	485	1106	1591	482	1122	1604	4472	12	3	61
W.B. Khalid	6	17	150	167	18	150	168	440	1	3	20
Samad Al-Shaan	14	298	676	974	299	676	975	3714	10	4	73
Duqum	12	323	365	688	320	375	695	1724	5	2	39
Tawi Attair	6	186	274	460	183	270	453	1238	3	3	57
Bidiya	26	465	767	1232	468	762	1230	4418	12	4	47
Adam	31	646	1012	1658	632	1011	1643	6021	16	4	53
Jabal Akhdar	4	11	75	86	11	75	86	198	1	2	14
Rakhyut	18	22	26	48	22	26	48	120	1	3	2
Wadi Mistal*	12	3	11	14	3	11	14	27	1	2	7
Wadi Hawasna*	12	1	6	7	1	6	7	18	1	3	5
Wadi Hemli*	12	13	27	40	12	25	37	119	4	3	32
<b>Total</b>	<b>2354</b>	<b>57395</b>	<b>94473</b>	<b>151868</b>	<b>57354</b>	<b>94324</b>	<b>151678</b>	<b>734237</b>	<b>2016</b>	<b>5</b>	<b>87</b>

\* Started functioning in December, 1986.

\*\* Bed Occupancy = Patient's days X 100/Beds in the ward X Number of days in the year.

**Note :** (i) Medinat Al-Haq & Sudh (18 beds each) and Yankul (9 beds) did not report any admission during 1986.

(ii) 3 Maternity Centres (with a beds each) not included.

TABLE 2.4

## Deaths in Hospitals by age-groups and sex — 1986

Hospitals	DEATH BY AGE-GROUPS AND SEX														
	Under 28 days		28 days-under 1 year		1—4 years		5—14 years		15—44 years		45 years & over		Total deaths		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Khoula	32	22	7	2	7	7	4	1	22	17	57	24	129	73	202
Al-Nahdha	8	9	26	23	8	13	9	7	46	15	104	61	201	128	329
Ar-Rahma	—	—	2	—	1	—	1	—	5	3	51	26	60	29	89
Ibn-Sina	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1
Rustaq	25	10	5	11	1	4	1	1	9	1	44	25	85	52	137
Sohar	51	31	20	14	6	5	3	3	19	7	60	28	159	88	247
Sumail	5	9	2	4	2	2	1	1	3	1	16	20	29	37	66
Nizwa	24	14	15	8	5	1	3	2	8	4	40	21	95	50	145
Ibra	15	9	3	2	2	3	—	—	4	1	20	5	44	20	64
Sur	41	16	8	8	1	1	1	1	1	4	22	19	74	49	123
Tanam	13	20	9	6	3	2	2	1	6	3	31	11	64	43	107



Hospitals	DEATH BY AGE-GROUPS AND SEX														
	Under 28 days		28 days-under 1 year		1—4 years		5—14 years		15—44 years		45 years & over		Total deaths		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Buraimi	3	1	2	1	1	1	—	—	6	—	26	10	38	13	51
Qaboos	24	20	8	4	4	1	2	3	13	7	23	10	74	45	119
Baya	4	1	—	1	—	—	—	—	—	—	1	—	5	2	7
Khasab	—	2	2	—	—	1	—	—	1	—	2	—	5	3	8
Saham	—	—	—	4	—	1	—	—	—	—	5	1	5	6	11
Bahla	2	1	1	1	1	1	—	1	—	—	16	6	20	10	30
B.B. Bu Ali	8	7	3	4	1	1	1	1	—	1	4	3	17	17	34
B.B. Bu Hassan	1	—	—	—	—	—	—	1	—	—	—	3	1	4	5
Sinaw	3	4	3	3	1	—	—	—	1	1	10	5	18	13	31
Quriyat	1	—	—	—	1	1	—	—	—	—	2	1	4	2	6
Masirah	—	—	1	—	—	—	—	—	—	1	2	—	3	1	4

Hospitals	DEATH BY AGE-GROUPS AND SEX														
	Under 28 days		28 days-under 1 year		1—4 years		5—14 years		15—44 years		45 years & over		Total deaths		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Wadi Tayeen	2	—	—	—	—	—	—	—	—	—	4	5	6	5	11
W.B. Ghaffir	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1
Haima	—	—	—	—	—	—	—	—	—	—	2	—	2	—	2
Izki	—	—	—	2	—	1	—	—	—	—	—	2	—	5	5
Duqum	—	1	—	—	—	—	—	—	—	1	2	—	2	2	4
Tawi Attair	—	—	—	1	—	—	—	—	—	1	—	—	—	2	2
Bidiya	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1
Adam	1	—	—	—	—	—	—	—	—	—	2	1	3	1	4
<b>Total</b>	<b>263</b>	<b>178</b>	<b>117</b>	<b>99</b>	<b>45</b>	<b>46</b>	<b>28</b>	<b>23</b>	<b>144</b>	<b>68</b>	<b>547</b>	<b>288</b>	<b>1144</b>	<b>702</b>	<b>1846</b>

**TABLE 2.5****Attendance in OPD of M.O.H. Facilities — 1986**

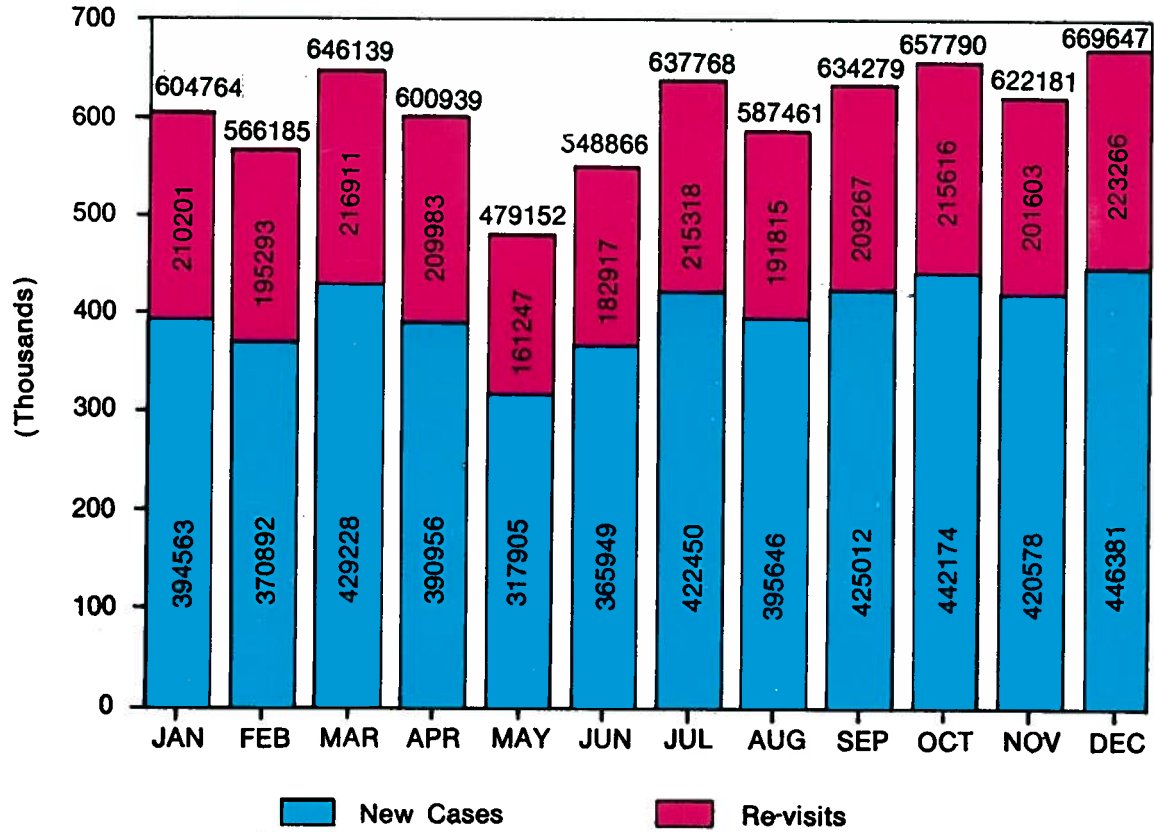
Facility	New Cases*	Re-visits	Total
Hospitals	2693743	2075356	4769099
Health Centres	2083155	351444	2434599
Maternity Centres	44836	6637	51473
Total	4821734	2433437	7255171

\* Where a new Card is issued.

**Note :-** For details please see Table 2.6 & 2.7

# OPD ATTENDANCE IN M.O.H. HEALTH UNITS

BY MONTHS — 1986



**TABLE 2.6****Attendance in Out-Patient Departments of Hospitals — 1986**

Hospitals	** New Cases	Re-visits	Grand Total	Daily average of Patients attended
Khoula	83081	112053	195134	535
Al-Nahdha	216624	156149	372773	1021
Ar-Rahma	40336	83695	124031	340
Assaada	20097	47433	67530	185
Muscat	80835	15218	96053	263
Ibn-Sina	2219	16921	19140	52
Rustaq	129539	78697	208236	571
Sohar	222570	121856	344426	944
Sumail	66807	128067	194874	534
Nizwa	94675	98051	192726	528
Ibra	122100	60824	182924	501
Sur	64898	121123	186021	510

Hospitals	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Tanam	159036	86350	245386	672
Buraimi	126123	46236	172359	472
Qaboos	75977	367765	443742	1216
Bukha	16449	6313	22762	62
Baya	60738	25812	86550	237
Khasab	47185	22782	69967	192
Saham	143749	23963	167712	459
Bahla	121821	25427	147248	403
B.B. Bu Ali	137784	34234	172018	471
B.B. Bu Hassan	56104	39871	95975	263
Sinaw	51491	89139	140630	385
Quriyat	65729	15121	80850	222

Hospitals	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Masirah	8783	67416	76199	209
Wadi Tayeen	52489	11271	63760	175
W.B. Ghaffir	40476	7978	48454	133
Wadi Sarami	8893	2281	11174	31
Haima	8203	2647	10850	30
Izki	26024	41922	67946	186
W.B. Khalid	17066	3263	20329	56
Samad Al-Shaan	55137	26808	81945	225
Duqum	15744	4137	19881	54
Tawi Attair	19381	7603	26984	74
Bidiya	47550	21215	68765	188
Adam	48537	30869	79406	218

Hospitals	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Jabal Akhdar	17243	3233	20476	56
Rakhyut	3613	1060	4673	13
Sudh	14881	3740	18621	51
Madinat Al-Haq	11025	6060	17085	47
Wadi Jizzi	23324	6917	30241	83
Wadi Mistal*	942	134	1076	35
Wadi Hawasna*	719	43	762	25
Wadi Hemli*	2700	941	3641	117
Yankul	65046	2718	67764	186
<b>Total</b>	<b>2693743</b>	<b>2075356</b>	<b>4769099</b>	<b>13230</b>

\* Started functioning in December, 1986.

\*\* Where a New Card is issued.



**TABLE 2.7****Attendance in Out-Patient Departments of Health Centres/Maternity Centres — 1986**

Health Centres	** New Cases	Re-visits	Grand Total	Daily average of Patients attended
Al-Hamra	46971	18339	65310	179
Al-Ghafat	28245	6538	34783	95
Al-Mamoor	20780	3110	23890	65
Al-Ashkara	33971	5713	39684	109
Al-Kamil	31574	9706	41280	113
Al-Ruwais	21969	2822	24791	68
Al-Suwaih	18868	3120	21988	60
Al-Wafi	22214	2372	24586	67
Qumaila	9782	1521	11303	31
Al-Ghaina	17221	4601	21822	60
Al-Haj	36777	2779	39556	108
Al-Dareez	9098	4692	13790	38
Al-Dhahir	8163	1170	9333	26

Health Centres	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Mudhaibi	31379	4965	36344	100
Mudherib	6954	1344	8298	23
Seh Dhabi	110919	29496	140415	385
Lima	6735	3022	9757	27
Kumzar	7831	1848	9679	27
Masnah	106547	17825	124372	341
Manah	30970	3122	34092	93
Barkat Al-Mouz	21660	1943	23603	65
Dagmar	11764	2439	14203	39
Siya	18272	1711	19983	55
Hail Ghaf	8370	3122	11492	31
Mazara	15249	3296	18545	51
Nakhal	24445	3399	27844	76
Afi	21583	3499	25082	69
Hoqein	30110	2216	32326	89
Awabi	25851	4364	30215	83

Health Centres	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Wadi Sahtan	22804	1872	24676	68
Wadi Mehram	12238	3602	15840	43
Seeb	79311	15261	94572	259
Fanja	54402	8008	62410	171
Al-Khodh	9080	3150	12230	34
W.B. Rauwaha	16572	2958	19530	54
Birka	74097	15691	89788	246
Aiga	12206	18	12224	33
Tiwi	15190	4339	19529	54
Ras Al-Had	14579	1803	16382	45
Liwa	54949	4613	59562	163
Khabura	76306	8159	84465	231
Wadi Shafan	6166	1329	7495	21
Suwaiq	57821	3927	61748	169
Shinas	61705	5741	67446	185
Abu Baqra	16626	1506	18132	50

Health Centres	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Mirbat	32531	13424	45955	126
Taqa	30828	5487	36315	99
Thumrait	17816	2906	20722	57
Dhalqut	7086	468	7554	21
Hasik	5875	1149	7024	19
Kuria Muria	2592	1238	3830	10
Haighaf	8068	1275	9343	26
Ashuwaimiyah	5442	801	6243	17
Sheelim	6271	1641	7912	22
Mudhai	2847	686	3533	10
Port Raysut	4911	665	5576	15
Soghara	4475	491	4966	14
Liqbi	7013	1575	8588	24
Jibjat	8152	1607	9759	27
Khadrafi	5130	578	5708	16
Qeiron Heiriti	14588	1556	16144	44

Health Centres	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Ghadow	10566	2415	12981	36
Shahib Assaib	18448	963	19411	53
Sharbithat	4195	1019	5214	14
Al-Kahil	11555	1263	12818	35
Umbusheq	3510	1034	4544	12
Teytum	9899	1827	11726	32
Makinat Shahan	7092	1192	8284	23
Hadbeen	2681	346	3027	8
Central Jabal	35285	6905	42190	116
Eastern Coastal	116692	28601	145293	398
Eastern Jabal	54186	8659	62845	172
Western Jabal	40245	3479	43724	120
Negd & Central Jabal	43221	8432	51653	142
Sunaina	14526	775	15301	42
Ibri	43344	2723	46067	126
Mamur	17998	1084	19082	52

Health Centres	New Cases	Re-visits	Grand Total	Daily average of Patients attended
Dhank	46883	1862	48745	134
Muqniyat	47141	4289	51430	141
Hajeermat	22989	2849	25838	71
Al-Fayadh*	750	109	859	28
<u>Maternity Centres</u>				
Mahdha	18139	1705	19844	54
Madha	15992	3351	19343	53
Heebi	10705	1581	12286	34
<b>Total Health Centres/M.Cs.</b>	<b>2127991</b>	<b>358081</b>	<b>2486072</b>	<b>6842</b>

\* Started functioning in December 1986.

\*\* Where a New Card is issued.

**TABLE 2.8**

**Number of reported cases of notifiable diseases — 1986**

ICD-9 Basic Tabulation List	Disease	New cases reported
011	Typhoid fever *	168
012	Shigellosis (bacillary dysentery)	3,332
013	Food poisoning (including Salmonella)	817
014	Amoebiasis	4,048
019.0	Paratyphoid fevers*	26
020	Pulmonary tuberculosis	11,53
029.1	Tuberculosis of other organs	112
031	Brucellosis*	186
032	Leprosy*	3
033	Diphtheria*	4
034	Whooping cough	207
036	Meningococcal infection*	7
037	Tetanus*	13
039.0	Anthrax*	1
040	Acute poliomyelitis*	44
042	Measles	2,001
043	Rubella	1
046	Viral hepatitis	2,223
049.1	Chicken-pox	8,814
049.3	Mumps	8,778
052	Malaria	82,343
074	Filarial infection & dracontiasis	7
321	Pneumonia	5,433
322	Influenza	83,604

\* Number of hospitalized cases are given against the respective disease.

**TABLE 2.9**

**Mortality and Morbidity by groups of Diseases — 1986**

Groups of Diseases (ICD-9)	Deaths		In-Patients		Out-Patients					
	Number	%	Number	%	Hospitals		Health Centres		Total	
					Number	%	Number	%	Number	%
1. Infectious and parasitic diseases	253	13.71	19196	12.66	297302	11.31	231635	10.56	528937	10.97
2. Neoplasms	153	8.29	1244	0.82	177	0.01	—	—	177	...
3. Endocrine, nutritional & metabolic diseases and immunity disorders	22	1.19	1863	1.23	7195	0.27	31336	1.43	38531	0.80
4. Diseases of blood and blood forming organs	13	0.70	2520	1.66	22060	0.84	27218	1.24	49278	1.02
5. Mental disorders	0	0.00	1273	0.84	2346	0.09	—	—	2346	0.05
6. Diseases of the nervous system and sense organs	57	3.09	4841	3.19	216247	8.23	160576	7.32	376823	7.82
7. Diseases of circulatory system	511	27.68	7321	4.83	21813	0.83	—	—	21813	0.45



Groups of Diseases (ICD-9)	Deaths		In-Patients		Out-Patients					
	Number	%	Number	%	Hospitals		Health Centres		Total	
					Number	%	Number	%	Number	%
8. Diseases of respiratory system	142	7.69	18758	12.37	761553	28.97	786391	35.86	1547944	32.10
9. Diseases of digestive system	55	2.98	7574	4.99	258000	9.81	88347	4.03	346347	7.18
10. Diseases of genito-urinary system	44	2.38	8444	5.57	57051	2.17	—	—	57051	1.18
11. Complications of pregnancy, child birth and puerperium	5	0.27	51331	33.84	20821	0.79	—	—	20821	0.43
12. Diseases of the skin and subcutaneous tissue	2	0.11	2672	1.76	189086	7.19	217913	9.94	406999	8.44
13. Diseases of musculoskeletal system and connective tissue	3	0.16	2140	1.41	242130	9.21	—	—	242130	5.02
14. Congenital anomalies	95	5.15	808	0.53	1018	0.04	—	—	1018	0.02

Groups of Diseases (ICD-9)	Deaths		In-Patients		Out-Patients					
	Number	%	Number	%	Hospitals		Health Centres		Total	
					Number	%	Number	%	Number	%
15. Certain conditions originating in perinatal period	284	15.38	2118	1.40	430	0.02	—	—	430	0.01
16. Symptoms, signs & ill defined conditions	70	3.79	7636	5.03	358791	13.65	480378	21.90	839169	17.40
17. Injury and poisoning	137	7.42	11583	7.64	172677	6.57	169243	7.72	341920	7.09
18. Other reasons for contact with health services	—	—	356	0.23	—	—	—	—	—	—
<b>Total</b>	<b>1846</b>	<b>99.99</b>	<b>151678</b>	<b>100.00</b>	<b>2628697</b>	<b>100.00</b>	<b>2193037</b>	<b>100.00</b>	<b>4821734</b>	<b>99.98</b>

... Represents percentage less than 0.005

— Represents group of diseases not available in OPD classification

**Note:** The OPD cases seen in Yankul are included under health centres.

**TABLE 2.10****Main Causes of Mortality in hospitalized population — 1986****For Infants (under 1 year of age)****Total deaths = 657**

ICD-9 Basic Tabu- lation list	Disease	Number	Proportion (%)
452	Slow fetal growth fetal malnutrition & immaturity	197	30.0
038	Septicaemia	94	14.3
321	Pneumonia	76	11.6
019.1	Acute gastro-enteritis & diarrhoea	28	4.3
442	Congenital anomalies of heart & circulatory system	20	3.0
220	Meningitis	16	2.4
229.1	Inflammatory diseases of CNS	9	1.4
444	Deformities of digestive system	7	1.1
440	Spina bifida & hydrocephalus	6	0.9
467	Respiratory failure	6	0.9

**For children (1—14 years of age)****Total deaths = 142**

038	Septicaemia	18	12.7
49	Intracranial & internal injuries including nerves	15	10.6
52	Burns	9	6.3
019.1	Acute gastro-enteritis & diarrhoea	7	4.9
229.1	Inflammatory diseases of CNS	7	4.9
321	Pneumonia	6	4.2
442	Congenital anomalies of heart & circulatory system	6	4.2
141	Leukaemia	5	3.5
200	Anaemias	5	3.5
350	Nephritis, nephrotic syndrome & nephrosis	5	3.5

**For Adults (15 years & over of age)****Total deaths = 1047**

27	Ischaemic heart diseases	188	18.0
29	Cerebrovascular diseases	129	12.3
49	Intracranial & internal injuries including nerves	61	5.8
091	Malignant neoplasm of stomach	46	4.4
467	Respiratory failure	36	3.4
020	Pulmonary tuberculosis	33	3.2
347	Chronic liver disease & cirrhosis	28	2.7
321	Pneumonia	26	2.5
038	Septicaemia	23	2.2
350	Nephritis, nephrotic syndrome & nephrosis	22	2.1

TABLE 2.11

## Number of deliveries &amp; births — 1986

Health Units	Deliveries								Births					
	In health unit						Born before arrival	Grand Total	Live-births				Still born	Grand Total
	Normal	Caesarian	Forceps	Vacuum	Others	Total			Normal	Premature	With other abnormalities	Total		
Khoula Hospital	6796	654	38	139	443	8070	718	8788	8173	471	73	8717	150	8867
Assaada 1 ✓	1286	—	5	36	24	1351	137	1488	1394	84	4	1482	11	1493
Rustaq 7 ✓	2875	80	6	62	71	3094	402	3496	3210	269	11	3490	41	3531
Sohar 6 ✓	3450	124	5	61	129	3769	651	4420	4020	358	18	4396	72	4468
Sumail 3 ✓	1161	38	10	20	34	1263	138	1401	1297	94	10	1401	19	1420
Nizwa 3 ✓	981	176	2	60	140	1359	44	1403	1185	186	8	1379	37	1416
Ibra 4 ✓	876	23	—	24	26	949	205	1154	1046	95	6	1147	14	1161
Sur 5 ✓	1763	86	13	37	34	1933	161	2094	1902	175	6	2083	33	2116
Tanam 8 ✓	1695	51	4	12	101	1863	279	2142	1909	209	16	2134	32	2166
Buraimi 5 ✓	467	17	—	18	24	526	40	566	544	19	5	568	3	571
Qaboos 2 ✓	2174	175	14	114	160	2637	58	2695	2522	148	29	2699	34	2733
Bukha 9 ✓	46	—	—	—	9	55	4	59	54	6	—	60	—	60
Baya 9 ✓	276	1	7	13	3	300	7	307	292	15	—	307	—	307

Health Units	Deliveries								Births					
	In health unit						Born before arrival	Grand Total	Live-births				Still born	Grand Total
	Normal	Caesarian	Forceps	Vacuum	Others	Total			Normal	Premature	With other abnormalities	Total		
Khasab 9 ✓	338	—	—	2	8	348	11	359	328	24	6	358	4	362
Saham 6 ✓	2437	—	3	—	94	2534	502	3036	2821	191	7	3019	25	3044
Bahla 3 ✓	922	—	—	38	98	1058	62	1120	992	127	1	1120	11	1131
B.B. Bu Ali 5 ✓	689	—	2	7	23	721	114	835	763	75	—	838	6	844
B.B. Bu Hassan 5 ✓	480	—	—	4	—	484	84	568	527	40	—	567	6	573
Sinaw 4 ✓	758	—	—	—	12	770	162	932	828	93	9	930	5	935
Quriyat 1 ✓	552	3	2	—	16	573	324	897	783	107	3	893	10	903
Masirah 5 ✓	130	—	—	4	2	136	10	146	144	5	—	149	1	150
Wadi Tayeen 4 ✓	229	—	—	—	—	229	110	339	317	18	1	336	4	340
W.B. Ghaffir 2 ✓	227	—	4	—	5	236	61	297	251	40	4	295	3	298
Wadi Sarami 6 ✓	41	—	—	—	—	41	3	44	36	8	—	44	—	44
Haima 10 ✓	17	—	—	—	—	17	5	22	22	—	—	22	—	22
Izki 3 ✓	498	—	—	—	3	501	45	546	485	59	4	548	2	550

Health Units	Deliveries								Births					
	In health unit						Born before arrival	Grand Total	Live-births				Still born	Grand Total
	Normal	Caesarian	Forceps	Vacuum	Others	Total			Normal	Premature	With other abnormalities	Total		
W.B. Khalid 5 ✓	89	—	—	—	1	90	39	129	123	5	—	128	1	129
Samad Al-Shaan 4 ✓	273	—	—	1	10	284	105	389	364	26	—	390	2	392
Duqum 10 ✓	48	—	1	—	4	53	35	88	79	7	2	88	2	90
Tawi Attair 2 ✓	31	—	—	—	1	32	5	37	31	4	1	36	1	37
Bidiya 4 ✓	209	—	—	—	4	213	59	272	265	7	—	272	2	274
Adam 3 ✓	211	—	—	3	1	215	36	251	231	14	4	249	2	251
Jabal Akhdar 3 ✓	45	—	—	—	2	47	4	51	46	5	—	51	—	51
Rakhyut 2 ✓	1	—	—	—	—	1	7	8	8	—	—	8	—	8
Madinat Al-Haq 2 ✓	2	—	—	—	—	2	—	2	2	—	—	2	—	2
Wadi Mistal* 2 ✓	4	—	—	—	—	4	2	6	6	—	—	6	—	6
Wadi Hawasna* 6 ✓	4	—	—	—	—	4	—	4	4	—	—	4	—	4
Wadi Hemli* 2 ✓	4	—	—	—	—	4	1	5	3	2	—	5	—	5

Health Units	Deliveries								Births					
	In health unit						Born before arrival	Grand Total	Live-births				Still born	Grand Total
	Normal	Caesarian	Forceps	Vacuum	Others	Total			Normal	Premature	With other abnormalities	Total		
Yankul 8 ✓	441	—	—	—	—	441	67	508	473	39	1	513	3	516
Mahdha M.C. 1 ✓	1	—	—	—	—	1	—	1	1	—	—	1	—	1
Madha 2 ✓	20	—	—	—	—	20	—	20	20	—	—	20	—	20
Heebi 6 ✓	85	—	—	—	—	85	10	95	87	5	1	93	2	95
<b>Total</b>	<b>32632</b>	<b>1428</b>	<b>116</b>	<b>655</b>	<b>1482</b>	<b>36313</b>	<b>4707</b>	<b>41020</b>	<b>37588</b>	<b>3030</b>	<b>230</b>	<b>40848</b>	<b>538</b>	<b>41386</b>

Started functioning in December, 1986.



**TABLE 2.12**

**Ante-natal/Post-natal Services in Hospitals and Maternity Centres — 1986**

Hospitals/M Cs	Ante-natal visits			Post-natal visits		
	New	Re-visits	Total	New	Re-visits	Total
Khoula Hospital	10568	30386	40954	533	551	1084
Assaada	5596	9076	14672	3535	—	3535
Rustaq	2600	7441	10041	238	223	461
Sumail	2147	8919	11066	273	42	315
Nizwa	1696	5522	7218	2552	28897	31449
Ibra	1630	5034	6664	1792	2953	4745
Sur	2029	7081	9110	—	—	—
Tanam	2395	8955	11350	520	149	669
Buraimi	1839	4148	5987	166	43	209
Qaboos	3352	23265	26617	855	850	1705
Bukha	110	308	418	48	—	48
Baya	593	1594	2187	—	—	—
Khasab	443	1989	2432	111	35	146
Bahla	766	1739	2505	—	—	—
B.B. Bu Ali	1318	5192	6510	—	—	—
B.B. Bu Hassan	615	1175	1790	131	35	166
Sinaw	1074	3807	4881	—	—	—
Quriyat	1437	3476	4913	—	—	—
Masirah	200	1142	1342	145	441	586
Wadi Tayeen	372	1865	2237	—	—	—
W.B. Ghaffir	355	1197	1552	266	28	294
Wadi Sarami	11	14	25	2	—	2
Haima	54	36	90	6	3	9

Hospitals/M.C.	Ante-natal visits			Post-natal visits		
	New	Re-visits	Total	New	Re-visits	Total
Izki	662	1361	2023	156	68	224
W.B. Khalid	138	625	763	196	—	196
Samad Al-Shaan	469	1533	2002	327	962	1289
Duqum	200	299	499	79	55	134
Tawi Attair	160	140	300	66	—	66
Bidiya	552	1596	2148	87	53	140
Adam	455	986	1441	352	608	960
Jabal Akhdar	152	638	790	73	56	129
Rakhyut	24	32	56	—	—	—
Sudh	41	143	184	40	28	68
Madinat Al-Haq	105	136	241	40	19	59
Wadi Jizzi	142	86	228	30	9	39
Wadi Mistal*	23	5	28	—	—	—
Wadi Hawasna*	13	2	15	—	—	—
Wadi Hemli*	2	18	20	—	—	—
Yankul	496	1714	2210	252	277	529
Mahdha M.C.	43	37	80	5	—	5
Madha	22	22	44	20	20	40
Heebi	143	611	754	154	160	314
<b>Total</b>	<b>45042</b>	<b>143345</b>	<b>188387</b>	<b>13050</b>	<b>36565</b>	<b>49615</b>

Started functioning in December, 1986

**TABLE 2.13**

**Operation performed in Hospitals/HCs — 1986**

Hospitals	TYPE OF MAJOR OPERATIONS										Minor Operations	Grand Total
	Gastro-intestinal	Genito-urinary	Obs. & Gynaec	Ophthalmology	Orthopaedics	Plastic surgery		Dental	Misc.	Total Major Operations		
Khoula	1063	312	961	—	576	252	—	—	1564	4728	9038	13766
Al-Nahdha	—	—	—	865	—	—	741	16	—	1622	5275	6897
Assaada	—	—	—	—	—	—	—	—	—	—	447	447
Muscat	—	—	—	—	—	—	—	—	—	—	32	32
Rustaq	99	17	90	61	—	3	57	—	8	335	2605	2940
Sohar	270	66	144	314	252	5	—	—	55	1106	4673	5779
Sumail	45	2	43	20	2	—	—	7	40	159	15036	15195
Nizwa	218	60	193	175	27	12	1	—	155	841	5528	6369
Ibra	51	19	26	68	2	6	—	—	8	180	2259	2439
Sur	152	51	124	96	3	4	54	—	14	498	2461	2959
Tanam	89	31	62	93	4	1	8	1	101	390	3401	3791
Buraimi	62	17	27	119	3	3	—	—	38	269	1239	1508

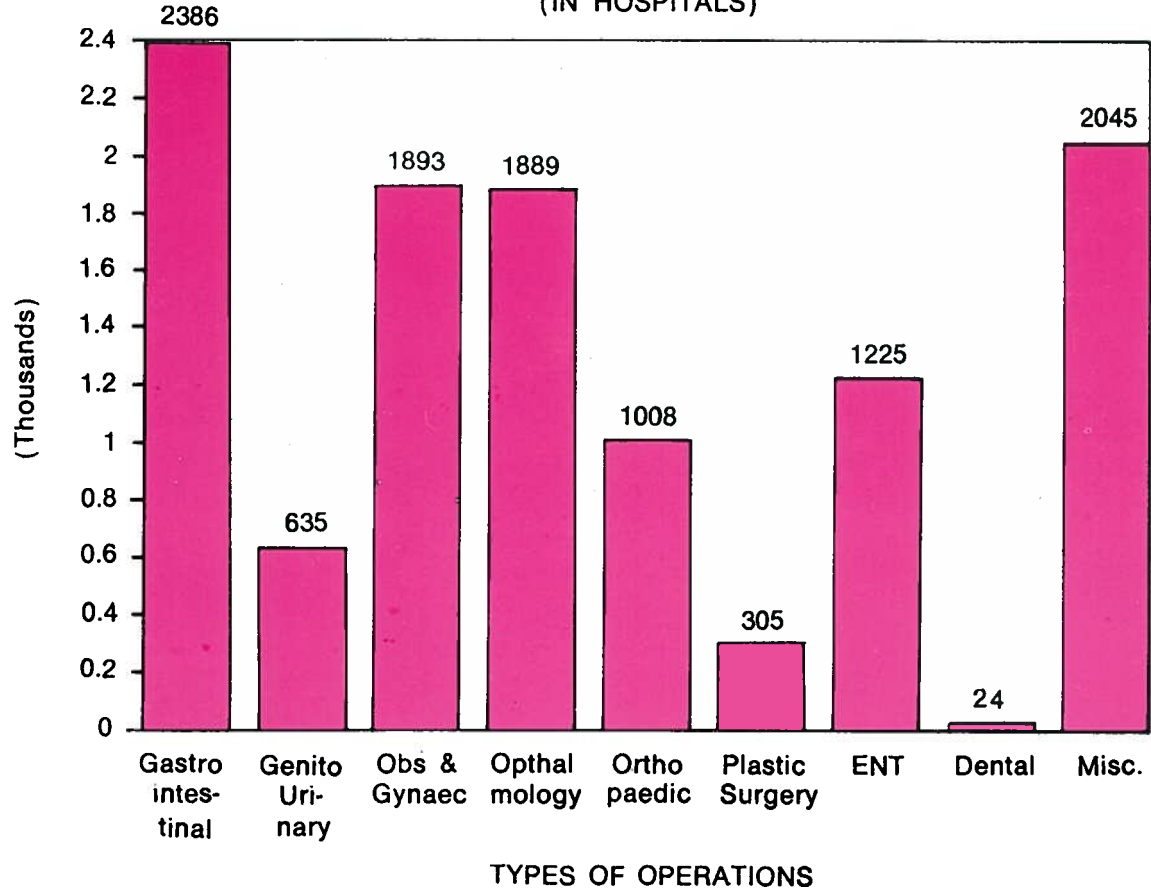


Hospitals	TYPE OF MAJOR OPERATIONS										Minor Operations	Grand Total
	Gastro-intestinal	Genito-urinary	Obs. & Gynaec	Ophthalmology	Orthopaedics	Plastic surgery	ENT	Dental	Misc.	Total Major Operations		
Samad Al-Shan	—	—	—	—	—	—	—	—	—	—	392	392
Duqum	—	—	—	—	—	—	—	—	—	—	70	70
Tawi Attair	—	—	—	—	—	—	—	—	—	—	101	101
Bidiya	—	—	—	—	—	—	—	—	—	—	145	145
Adam	—	—	—	—	—	—	—	—	—	—	522	522
Jabal Akhdar	—	—	—	—	—	—	—	—	—	—	74	74
Rakhyut	—	—	—	—	—	—	—	—	—	—	7	7
Sudh	—	—	—	—	—	—	—	—	—	—	38	38
Wadi Jizzi	—	—	—	—	—	—	—	—	—	—	100	100
Wadi Mistal*	—	—	—	—	—	—	—	—	—	—	10	10
Wadi Hawasna*	—	—	—	—	—	—	—	—	—	—	3	3
Yankul	—	—	—	—	—	—	—	—	—	—	90	90
<b>Total (Hospitals)</b>	<b>2386</b>	<b>635</b>	<b>1893</b>	<b>1889</b>	<b>1008</b>	<b>305</b>	<b>1225</b>	<b>24</b>	<b>2045</b>	<b>11410</b>	<b>66459</b>	<b>77869</b>
<b>Total (Health Centres)</b>	—	—	—	—	—	—	—	—	—	—	<b>10963</b>	<b>10963</b>
<b>Grand Total</b>	<b>2386</b>	<b>635</b>	<b>1893</b>	<b>1889</b>	<b>1008</b>	<b>305</b>	<b>1225</b>	<b>24</b>	<b>2045</b>	<b>11410</b>	<b>77422</b>	<b>88832</b>

\* Started functioning in December, 1986.

# MAJOR OPERATIONS PERFORMED - 1986

(IN HOSPITALS)



**TABLE 2.14**

**Number & type of X-rays done in Hospitals — 1986**

Hospitals	Type of X-rays				Total
	Plain	IVP	Barium meal	Others	
Khoula	76836	1602	1162	604	80204
Al-Nahdha	32262	216	872	2195	35545
Ar-Rahma	13308	56	16	37	13417
Muscat	1158	—	—	—	1158
Ibn-Sina	2257	—	—	—	2257
Rustaq	11353	84	69	13	11519
Sohar	14118	153	319	3615	18205
Sumail	6779	102	109	549	7539
Nizwa	9158	212	76	101	9547
Ibra	5111	92	58	84	5345
Sur	6442	105	116	22	6685
Tanam	12251	92	73	23	12439
Buraimi	6898	57	100	34	7089
Qaboos	32212	360	945	455	33972
Bukha	385	—	—	—	385
Baya	847	—	—	—	847
Khasab	2965	26	45	18	3054
Saham	4219	—	—	36	4255
Bahla	898	—	—	3740	4638
B.B. Bu Ali	4107	—	—	—	4107
B.B. Bu Hassan	3240	—	—	—	3240
Sinaw	2498	—	—	50	2548
Quriyat	3120	—	—	—	3120
Masirah	3149	8	—	—	3157
Wadi Tayeen	942	—	17	26	985
Adam	1314	12	10	101	1437
<b>Total</b>	<b>257827</b>	<b>3177</b>	<b>3987</b>	<b>11703</b>	<b>276694</b>

TABLE 2.15

## Laboratory Investigations Carried out in Hospitals — 1986

Hospitals	Types & number of Laboratory tests										Total
	Haema- tology	Bio- Chemistry	Bacterio- logy	Serology		Stool	Semen Analysis	Body Fluids	Blood- groupings	Others	
Khoula	82139	61376	283	—	20639	—	1368	510	93781	7482	267578
Al-Nahdha	161755	364069	71876	12921	12141	10130	—	—	1184	—	634076
Ar-Rahma	47345	45585	7879	1211	34912	11091	25	185	5369	7517	161119
Assaada	16689	485	232	1919	16554	376	—	—	3212	—	39467
Muscat	3745	510	71	226	2708	1418	9	—	16	65	8768
Ibn-Sina	8550	722	20	29	6080	674	4	—	166	40	16285
Rustaq	33009	9759	884	2534	18158	7924	106	101	12167	62	84704
Sohar	63041	12120	6273	6171	24407	7663	176	120	21858	545	142374
Sumail	29976	6392	827	709	9713	6029	29	55	3239	1126	58095
Nizwa	38923	10760	2990	1016	19400	7671	197	123	5444	900	87424
Ibra	57494	3335	804	2260	30619	4102	65	50	8823	2300	109852
Sur	32986	5040	4438	1596	35004	12671	109	41	7761	146	99792



Hospitals	Types & number of Laboratory tests										Total
	Haema- tology	Bio- Chemistry	Bacterio- logy	Serology	Urine	Stool	Semen Analysis	Body Fluids	Blood- groupings	Others	
Tanam	44026	8731	934	3823	20638	9431	65	40	12583	559	100830
Buraimi	28045	5493	1469	2131	41008	5858	87	44	3546	50	87731
Qaboos	74761	53771	9636	9098	37406	11067	298	130	12507	7349	216023
Bukha	3240	262	92	31	1586	639	1	—	209	—	6060
Baya	5280	702	202	32	4954	503	13	1	172	47	11906
Khasab	13138	1300	279	513	11357	1722	12	—	1260	105	29686
Saham	11570	541	51	2578	10847	3486	21	—	2872	1582	33548
Bahla	15807	2778	891	1512	15155	5045	20	15	3307	20	44550
B.B. Bu Ali	18937	722	312	648	6646	3738	23	58	2304	498	33886
B.B. Bu Hassan	20567	1300	424	1099	21543	2716	18	11	3113	99	50890
Sinaw	14589	1915	768	617	10999	3257	26	—	575	184	32930
Quriyat	11294	718	288	1065	13900	3280	13	—	1470	131	32159
Masirah	11520	358	309	356	3678	1719	11	3	423	310	18687
Wadi Tayeen	15175	122	117	84	6255	1651	2	6	756	30	24198
W.B. Ghaffir	3848	62	80	465	1139	1010	5	2	554	136	7301
Wadi Sarami	1012	14	—	47	445	143	—	—	46	70	1777

Hospitals	Types & number of Laboratory tests										Total
	Haema- tology	Bio- Chemistry	Bacterio- logy	Serology	Urine	Stool	Semen Analysis	Body Fluids	Blood- groupings	Others	
Haima	56	—	—	11	158	2	—	—	—	—	227
Izki	7666	91	59	21	7837	1714	5	—	971	4	18368
W.B. Khalid	4561	—	18	—	759	250	—	—	155	42	5785
Samad Al-Shaan	3502	—	42	109	1968	750	—	—	611	—	6982
Duqum	2974	50	120	89	964	386	1	—	155	—	4739
Tawi Attair	485	—	—	—	313	201	—	—	5	7	1011
Bidiya	4062	202	38	459	3360	1112	1	—	492	176	9902
Adam	12009	757	489	337	10183	2299	10	5	1008	—	27097
Jabal Akhdar	—	—	—	—	170	—	—	—	—	—	170
Rakhyut	361	—	—	—	293	6	—	—	—	—	660
Sudh	221	—	—	—	329	46	2	—	10	11	619
Madinat Al-Haq	186	—	—	—	189	95	—	—	—	—	470
Wadi Jizzi	1835	34	4	21	1293	222	2	—	44	—	3455
Wadi Hawasna*	26	—	—	17	33	2	—	—	17	2	97
Wadi Hemli*	103	—	—	—	18	50	—	—	5	—	176
<b>Total</b>	<b>906508</b>	<b>600076</b>	<b>113199</b>	<b>55755</b>	<b>465758</b>	<b>132149</b>	<b>2724</b>	<b>1500</b>	<b>212190</b>	<b>31595</b>	<b>2521454</b>

\* Started functioning in December, 1986.

TABLE. 2.16

## Dental and other Activities in Hospitals — 1986

Hospitals	Type of dental treatments				Other activities	
	Dental extractions	Dental fillings	Other dental treatments	Total dental treatments	Medical Checkups	Eye testings
Al-Nahdha	15136	2240	13340	30716	8696	24274
Ar-Rahma	—	—	—	—	3271	—
Muscat	1281	774	2815	4870	90	—
Rustaq	5685	581	3746	10012	651	2324
Sohar	8671	624	4960	14255	1879	8366
Sumail	6913	2394	990	10297	878	661
Nizwa	7570	834	2919	11323	539	6660
Ibra	4228	834	3285	8347	2152	513
Sur	4163	2042	27	6232	1794	4016
Tanam	3914	1114	5445	10473	3408	4175
Buraimi	2212	1826	5526	9564	654	607
Qaboos	6495	5709	8167	20371	852	12191
Bukha	42	—	57	99	183	—
Baya	210	—	134	344	79	79
Khasab	1167	119	911	2197	210	786
Saham	4072	402	3012	7486	1615	—
Bahla	—	—	—	—	928	—
B.B. Bu Ali	85	—	718	803	1128	798
B.B. Bu Hassan	132	13	1325	1470	974	865
Sinaw	2055	247	2849	5151	759	129
Quriyat	1667	432	1573	3672	443	—
Masirah	—	—	—	—	50	75
Wadi Tayeen	12	—	3465	3477	187	139

Hospitals	Type of dental treatments				Other activities	
	Dental extractions	Dental fillings	Other dental treatments	Total dental treatments	Medical Checkups	Eye testings
W.B. Ghaffir	—	—	1448	1448	—	—
Wadi Sarami	—	—	—	—	65	—
Haima	41	5	12	58	—	197
Izki	—	—	—	—	81	—
W.B. Khalid	—	—	—	—	112	—
Samad Al-Shaan	—	—	—	—	668	—
Adam	—	—	508	508	445	290
Sudh	—	—	—	—	14	—
Wadi Mistal*	—	—	43	43	—	—
<b>Total</b>	<b>75751</b>	<b>20190</b>	<b>67275</b>	<b>163216</b>	<b>32805</b>	<b>67145</b>

\* Started functioning in December, 1986

## 2.1 TREATMENT ABROAD

The Government is committed to provide free medical services to all its citizens. Those patients who cannot be treated locally are, therefore, sent abroad for treatment by Ministry of Health on Government expenses. Each such case is examined and decided by the Treatment Abroad Committee set up specially for this purpose.

2. During 1986, 428 patients were sent abroad for treatment which included 253 males & 175 females including 136 infants and children. Out of 428 sent abroad, 208 or 48.6% went to U.K., 104 or 24.3% to India, 61 or 14.3% to Jordan, 41 or 9.6% to Kuwait and the rest 14 or 3.3% to other countries which included Egypt, West Germany, U.S.A., Bahrain, France & Singapore. 486 attendants were also allowed with these patients.

3. Of those sent abroad, cardiac cases accounted for 152 (33.5%) or more than one third of the total cases followed by malignancy with 61 or 14.3%. Neurology, Renal, Blood and Eye diseases & Orthopaedic cases were other main causes for seeking treatment abroad.

**TABLE 2.1.1**

**Number of Patients Treated Abroad by Diseases and Countries — 1986**

Diseases	U.K.	India	Jordan	Kuwait	Egypt	Other Countries	Total	% of Cases
Cardiac cases	97	1	50	2	2	—	152	35.5
Malignancy	16	27	—	18	—	—	61	14.3
Neurology	17	15	1	3	1	2	39	9.1
Eye cases	19	8	—	—	—	—	27	6.3
Gastro-intestinal tract	6	4	4	—	—	—	14	3.3
Renal, nephrology & urology	14	20	1	1	—	1	37	8.6
Orthopaedics	6	9	1	—	1	3	20	4.7
Blood diseases	12	2	1	16	—	—	31	7.2
Liver diseases	—	2	—	—	—	—	2	0.5
ENT diseases	3	—	—	—	—	—	3	0.7
Endocrinology	2	—	—	—	—	—	2	0.5
Chest infections & tuberculosis	1	2	—	—	—	—	3	0.7
Gynaecology	2	3	—	—	—	—	5	1.2
Skin diseases	—	1	—	1	1	—	3	0.7
Oral surgery	2	—	—	—	—	—	2	0.5
Mental cases	—	1	1	—	—	—	2	0.5
Plastic Surgery	5	—	—	—	—	—	5	1.2
Other infections	6	9	2	—	—	3	20	4.7
<b>Total</b>	<b>208</b>	<b>104</b>	<b>61</b>	<b>41</b>	<b>5</b>	<b>9</b>	<b>428</b>	<b>100.2</b>

### **3. PREVENTIVE SERVICES**

The Directorate of Preventive Medicine is responsible for delivering preventive & promotive services, which include ante-natal and post-natal care, school health services, environmental health, health education, quarantine measures, vector control etc. The National Health Programme Office which is a part of the Directorate of Preventive Medicine manages Expanded Programme of Immunization, Tuberculosis Control Programme and Prevention of Blindness Programme. Malaria Control Programme and National Control of Diarrhoeal Diseases Programme are also managed by the Directorate of Preventive Medicine.

2. At the end of 1986 there were 6 Public Health Compounds, 52 Public Health Units/Primary Health Care Units, 8 Quarantine Units, 4 MCH Centres, 11 Malaria Control Centres, delivering preventive health services throughout the country.

The following Seminars and Workshops were conducted during 1986 :

- (i) Seminar on Prevention of Blindness on 18th February.
- (ii) Workshop on Expanded Programme of Immunization from 24th June to 2nd July.

**TABLE 3.1**

**Regional Distribution of Preventive Medicine Facilities — 31.12.1986**

Regions	Public Health Compounds	Public Health Units	Quarantine Units			MCH Centres	Primary Health Care Units	Malaria Control Centres
			Air-Ports	Ports	Land borders			
Capital Area	—	2	1	2	—	2	1	—
Al-Batinah	1	11	—	—	—	—	1	3
Interior	2	5	—	—	—	—	—	2
Eastern	1	17	—	—	—	1	—	4
Al-Dhahira	1	5	—	—	3	—	—	1
Southern	1	8	1	1	—	—	—	—
Northern	—	2	—	—	—	1	—	1
<b>Total</b>	<b>6</b>	<b>50</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>2</b>	<b>11</b>



**TABLE 3.2**

**MCH Activities**

Activities	MCH Muttrah & Darseit	Public Health Compounds & Units	Total
<b><u>Pregnancies Supervised at health facilities</u></b> (First visit and re-visits)	5362	123843	129205
<b><u>Home Deliveries</u></b>	53	2642	2695
<b><u>Home visits</u></b> (For supervision of pregnancy, post-natal care & infant care)	1247	6332	7579
<b><u>Tetanus Immunization during pregnancy</u></b>			
1st dose	Not	8896	
2nd dose	available	7249	
Booster		2078	
<b><u>Immunization of children</u></b>			
DPT/P	11446	79301	90747
Measles	2947	25115	28062
BCG	394	24533	24927

**TABLE 3.3**

**Number of Births, Deaths and Health Certificates Issued — 1986**

Health Facilities	Birth Certificates	Age Estimation Certificates	Death Certificates	Health Certificates for food handlers	International Vaccination Certificates	Other Health Certificates
- Hospitals of Capital Area	10008	—	566	—	—	—
- Communicable Diseases Section	—	3499	239	10168	22692	14284
- Quarantine Units	—	—	—	—	—	518
- Public Health Compounds & Public Health Units	36,860	28160	76	13678	35271	1190
- MCH Centres	442	—	—	—	—	—
<b>Total</b>	<b>47310</b>	<b>31659</b>	<b>881</b>	<b>23846</b>	<b>57963</b>	<b>15992</b>

### 3.1 EXPANDED PROGRAMME OF IMMUNIZATION (EPI)

The main features of Ministry of Health EPI policy are : -

- (i) To offer immunization on all its curative and preventive units;
- (ii) All children under 2 years of age and all females of child bearing age are to be screened and immunized;
- (iii) Public health institutions are to concentrate defaulter retrieval and visiting distant/inaccessible communities;
- (iv) Cases of six childhood diseases are to be reported to National Health Programme office for monitoring & supervision of preventive measures to control outbreak if any.

2. During 1986, the number of immunization doses given to children were :-

<u>Doses of</u>	<u>Children under 1 year of age</u>	<u>1-under 2 Years of age</u>	<u>2-under 6 years of age</u>
<b>BCG</b>	50,682	2,251	5,595
<b><u>DPT/OPV</u></b>			
Dose 1	50,389	4,766	8,644
Dose 2	47,153	8,008	12,653
Dose 3	40,388	11,377	16,976
Booster	—	20,976	24,965
Measles	38,632	11,655	12,440

3. The number of doses of Tetanus Toxoid given to females of child bearing age during 1986 were : -

	<u>Dose-1</u>	<u>Dose-2</u>	<u>Booster</u>
Pregnant women	24,895	20,488	4,226
Other women	23,360	15,962	1,601
<b>Total ;</b>	<b>48,255</b>	<b>36,450</b>	<b>5,827</b>

4. The EPI immunization coverage of the target population of 51,000 i.e. children under one year of age has shown marked improvement during the year under review. This coverage was 99% for BCG & DPT/OPV dose 1, 92% for DPT/OPV dose 2, 79% for DPT/OPV dose 3 and 76% for Measles. This has resulted in marked reduction in the reported cases of Measles, Polio, Pertussis & Tetanus.

### 3.2 TUBERCULOSIS CONTROL PROGRAMME

The Tuberculosis Control Programme is implemented by National Health Programme Office of the Department of Preventive Medicine. The Programme has the responsibility of supervising the diagnosis and treatment of Tuberculosis in the Ministry of Health Institutions. Statistical summary for 1986 and its comparison with 1985 is as under : -

	<u>1986</u>	<u>1985</u>
Sputum positive for AFB	222	258
Extra pulmonary cases	91	83
Sputum negative cases	387	520
<hr/>		
Total New Cases :	700	861
<hr/>		
Old Cases restarted treatment	171	190
Cases cured	446	483
Cases died	46	41
Cases lost (defaulters)	424	444
Cases on treatment on 31.12.86	690	784
 <b><u>Diagnostic tests</u></b>		
Sputum examinations	13,829	13,285
Chest X'rays	96,682	109,876
Mantoux tests	4,304	4,016

2. The data above show that there was a decrease in the number of new cases reported in 1986 as compared to 1985. The Programme also continued to make improvements in Tuberculosis Registration System. The defaulter recovery rate showed improvement in 1986 due to strenuous supervision of Public Health Compounds/Units responsible for defaulter retrieval activities and to an improved defaulter retrieval reporting system.

### **3.3 PREVENTION OF BLINDNESS PROGRAMME (PBP)**

Trachoma, the blinding eye disease is one of the main public health problem in Oman. Trachoma is endemic amongst the rural population of Northern Oman which accounts for 70% of the total population of the country and hence PBP target. Capital Area & Southern Region however are very little affected by the disease. The estimated proportion of the target population suffering from Trachoma & its sequelae is :-

Trachoma mild	22%
Trachoma moderate/severe	5%
Trachoma thick lid	18%
Trichiasis/Entropion	4%

2. 3% of the target population is one eye blind and another 3% both eyes blind. Since the victims of disease seldom seek medical care, the Prevention of Blindness Programme must, therefore, reach them into communities and schools to find and treat them. PBP has, therefore, two ways to deal with the problem – Community based screening programme and school screening programme.

#### **(i) Community Screening Programme**

It is being carried out by 7 PBP teams based in Nizwa, Sumail, Al-Hamra, Rustaq, Sur, Masnah & Sohar which cover about 7-10% of target population. During 1986, these teams screened 36,857 persons in 165 villages. Persons suffering with eye diseases were treated with necessary drugs and serious cases were referred to local ophthalmologist. During 1986 PBP ophthalmologists carried out 593 lid surgery for Trichiasis/Entropion.

#### **(ii) School Screening Programme**

30 PBP trained School Health Visitors carry out this programme. During school year 1986-87, they screened 55,957 children in 347 schools having 139,199 students. 53.5% of these had no eye disease but 27% were Trachoma mild cases, 7% Trachoma moderate/severe and 3% Trachoma thick lid cases. Consequently the suffering children were treated with appropriate drugs while serious cases were seen by local ophthalmologist. Children with defective vision were refracted by PBP Refractionists. These Refractionists carried out 4,287 refractions in 93 schools having 35,109 students. 1,771 students were found with defective vision 1,289 of which were prescribed glasses.

### **3.4 MALARIA CONTROL PROGRAMME**

Malaria Control Services in the Sultanate are coordinated by the Malaria Control Section based in Muscat. In keeping with the Government's policy of need-based expansions, additional new units and health facilities have been added to the general health services in 1986.

2. The constitution of the Inter-ministerial Malaria Control Committee with 9 ministries in November 86 identified the various problems facing the anti-malaria activities.
3. Unprecedented rains in 1986 created innumerable vector-breeding sites along many stream beds and on slopes of mountains rendering control services difficult. Consequently there was an upsurge of malaria activity in some places.
4. In the year under review 11 Malaria Control Units were operational located in Masnah, Shinas, Rustaq, Baya, Yankul, Wadi Bani Rauwaha, Adam, Mudhaibi, Ibra, Bidiya and Bilad Bani Bu Hassan. They look after anti-larval measures, supplementary space spraying, drug administration, parasitological and entomological monitoring. In addition to the MCU there were 40 Malaria Teams attached to the Public Health Compounds and Public Health Units. These teams were mainly involved in carrying out antilarval measures under the guidance of the Malaria Control Section.
5. The total personnel working in the Malaria Control Programme all over the country was 405 of which 123 are technical staff and 282 support staff.

#### **Geographical Reconnaissance :**

6. During the year under review it covered 504 villages with a total of 35643 breeding places of which 9521 wells, 21050 basins and 5072 others with a total surface area of 798607 square metres.

#### **DDT - House Spraying**

7. These activities covered a total of 134 villages protecting a total of 39118 population as compared with 109665 population covered in 1985.

8. Larviciding activities protected about 550,000 people inhabiting various places within the catchment areas of the various units. It covered about 867,000 square metres weekly of breeding places. Larviciding operations were carried out in 52 Governorates and and Sub-Governorates.

9. A unit dose of chloroquine and primaquine was administered to all inhabitants concomitantly with indoor DDT house spraying. The total population protected by this method was 40,196 in 134 villages. The rate of coverage was 82.8% in average.

### **Entomological Activities**

10. Entomological surveys were carried out in 42 places covering 350 villages. The primary objectives of these surveys, were to obtain, upto-date information on distribution of anophelines, possible role of different vectors, assessment of control measures and general reaction to different groups of insecticides in relation to the changing climatic and social factors, in the 4 eco-epidemiological zones in the Sultanate.

11. During 1986, a total of 289,061 smears were examined, of which 17,973 were representing the Passive case detection that was carried out by the ma'aria units and the Central Malaria Laboratory; 136,366 smears as Passive case detection carried out by the other health facilities; 133,515 smears from surveys and 1207 smears from the epidemiological contacts and the follow-up cases. The overall positive confirmed cases amounted to 16,627 with slide positivity rate of 5.75%.

12. Assessment routine surveys among the pre-school (2-5 years) and the school children (6-9 years) were undertaken twice during the year (done once in September/October and in March/April of the following year at the peak of malaria incidence). A total of 133,515 slides were produced from both age groups during 1986, resulting in the detection of 2,338 positive cases (SPR = 1.8%) of which 2,038 *P. falciparum*, 296 *P. vivax* and 4 *p. malariae*. Thus the parasite formula for the year was 87.2% *p. falciparum*, 12.7% *p. vivax* and 0.17% *p. malariae*.

13. Passive Case detection may be regarded as reflecting the overall situation, and on a regional basis they represent a valuable contribution assessment of the malaria trends. A total of 136,366 blood smears were collected and examined during 1986 from patients attending the general

health facilities with laboratories. 11138 were positive with SPR of 8.2%, of those, 8166 were *p. falciparum*, 2937 *p. vivax* only one *p. malariae* and 34 mixed infections. The parasite formula was thus 73.3% *p. falciparum* and 26.4% *p. vivax*.

14. A comparison can be made to show the evaluation of the malaria trend over the year. The data collected from the General Health Facilities are represented in the following table : -

Year	Slides examined	No. of positives	SPR%	Species				PF%
				PF	PV	PM	MIX	
1983	142161	30542	21.5	28566	1938	—	38	93.5
1984	212196	20916	9.9	18232	2676	1	7	87.2
1985	183636	12124	6.6	9063	3046	1	14	74.8
1986	136366	11138	8.2	8166	2937	1	34	73.3

15. 1175 blood smears were collected from the epidemiological contacts during 1986. This activity took place in six regions i.e. Capital Area, Batina, Sharqiya, Dhahira, Sur & Ja'alan and Southern regions. Only 64 positives were detected with SPR 5.4% of which 52 were *p. falciparum* and 12 were *p. vivax*.



### 3.5 OTHER PUBLIC HEALTH ACTIVITIES

(i) School Health Services

Such services being provided by public health compounds & public health units include medical checkup of the students, treatment of common diseases & vaccination against communicable diseases. During the year under review 678 visits were made to schools and 53,839 students were treated for various diseases.

(ii) Environmental Health Services

These services are carried out by Environmental Health Section in the Capital Area & public health compounds and public health units in the interior. During 1986 Environmental Health Section visited 2,759 places while public health compounds and public health units carried out 8,112 environmental health campaigns. The activities under these services are inspection of markets, slaughter houses, water reservoirs etc. in order to ensure safe water supplies and proper sanitary conditions in eating houses.

(iii) Bacteriological & Chemical Laboratories

These laboratories analyse food and water samples. During the year under review 2,184 food samples and 6,241 water samples were analysed. Moreover 761 water tanks were visited and disinfected.

(iv) Quarantine Activities

These activities are carried out at 8 health check-posts at points of entry to the country which include 3 ports, 2 airports and 3 border check posts. The Port health units checked 1,728 vessels with 42,041 crews during 1986. The airport health units checked 8,074 planes with 95,461 crew members and 465,552 passengers. 1,227 persons were vaccinated against cholera and 19 against yellow fever. A total of 12,083,936 foodstuff packets were also checked by health units at points of entry.

#### **4. EDUCATION & TRAINING**

The Directorate of Education & Training is responsible for medical education and training both locally & abroad. This includes :

- (i) Local education and training of the nurses & other para-medical staff at the Institute of Health Sciences;
- (ii) Post-graduate training of doctors & nurses abroad and
- (iii) Training of para-medical & other staff abroad.

2. During 1986, 45 students qualified from the Institute of Health Sciences detailed as under :

- 9 Staff Nurses
- 28 Assistant Nurses
- 8 Medical Laboratory Technicians

Two New Courses in Physiotherapy and Radiography were introduced during the year under review. The total enrolment at the Institute during 1986 was – 55 Staff Nurses, 65 Assistant Nurses, 46 Medical Laboratory Technicians, 8 Physiotherapy and 10 Radiography Technicians.

3. The Institute of Health Sciences trained 73 medical & para-medical personnel and conducted 27 courses for other staff. 21 medical & para-medical and 9 other staff members were sent abroad for further training.

4. The Directorate of Education & Training conducted a National Workshop on assessing the country needs for Health Teaching & Learning Materials from 2nd to 11th August, 1986.

**TABLE 4.1****Out put of Nurses and other Para-medical Staff from Institute of Health Sciences 1983-1986**

Years	Number of Students qualified								
	General Nursing			Assistant Nursing			Medical Laboratory Technician		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1983	5	21	26	—	—	—	—	—	—
1984	6	18	24	7	21	28	—	—	—
1985	9	18	27	10	17	27	—	—	—
1986	3	6	9	6	22	28	3	5	8

**TABLE 4.2****Enrolment at Institute of Health Sciences — 1986**

Courses	<u>Number of Students enrolled</u>		
	Male	Female	Total
<b><u>General Nursing</u></b>			
1st year	5	3	8
2nd year	15	2	17
3rd year	5	6	11
Final term	9	10	19
<b><u>Assistant Nursing</u></b>			
1st year	11	17	28
Final year	7	30	37
<b><u>Medical Lab. Technician</u></b>			
1st year	2	11	13
2nd year	6	6	12
3rd year	7	6	13
Final term	2	6	8
<b><u>Physiotherapy</u></b>			
1st year	5	3	8
<b><u>Radiography</u></b>			
1st year	8	2	10
<b>Total</b>	<b>82</b>	<b>102</b>	<b>184</b>

## **5. MEDICAL & HEALTH PERSONNEL**

At the end of 1986, the total staff employed under the Ministry of Health stood at 8,930 as compared to 8,501 at the end of 1985 showing an increase of over 5.0% during the year under review. Out of 8,930 personnel 5,600 or 62.7% were medical & para-medical and the remaining 3,330 were administrative and other staff.

2. The percentage of Omanis to the total staff was 54.9. However for medical & para-medical staff the same was 40.9. The percentage of Omanis for various categories of medical & para-medical was, physicians 8.9, dentists 29.6, pharmacists 13.0, nursing staff 14.4 and other para-medical staff 68.2.

**TABLE 5.1****Medical & Health Personnel — 1982 - 1986**

Categories	N U M B E R I N				
	1982	1983	1984	1985	1986
Administrators/Advisors	6	6	7	7	8
Consultants	10	11	16	24	24
Senior Specialists/ Specialists	76	87	90	95	108
Assistant Specialists	50	54	57	67	86
Medical Officers	243	307	402	445	448
Dentists	14	22	23	23	27
Pharmacists	15	16	18	22	23
Nurses	1164	1386	1753	1947	2057
Other Para-Medical Staff	1979	2261	2490	2722	2819
<b>Total</b>	<b>3557</b>	<b>4150</b>	<b>4856</b>	<b>5352</b>	<b>5600</b>

# MEDICAL & HEALTH PERSONNEL EMPLOYED

UNDER M.O.H. — 1982 — 1986

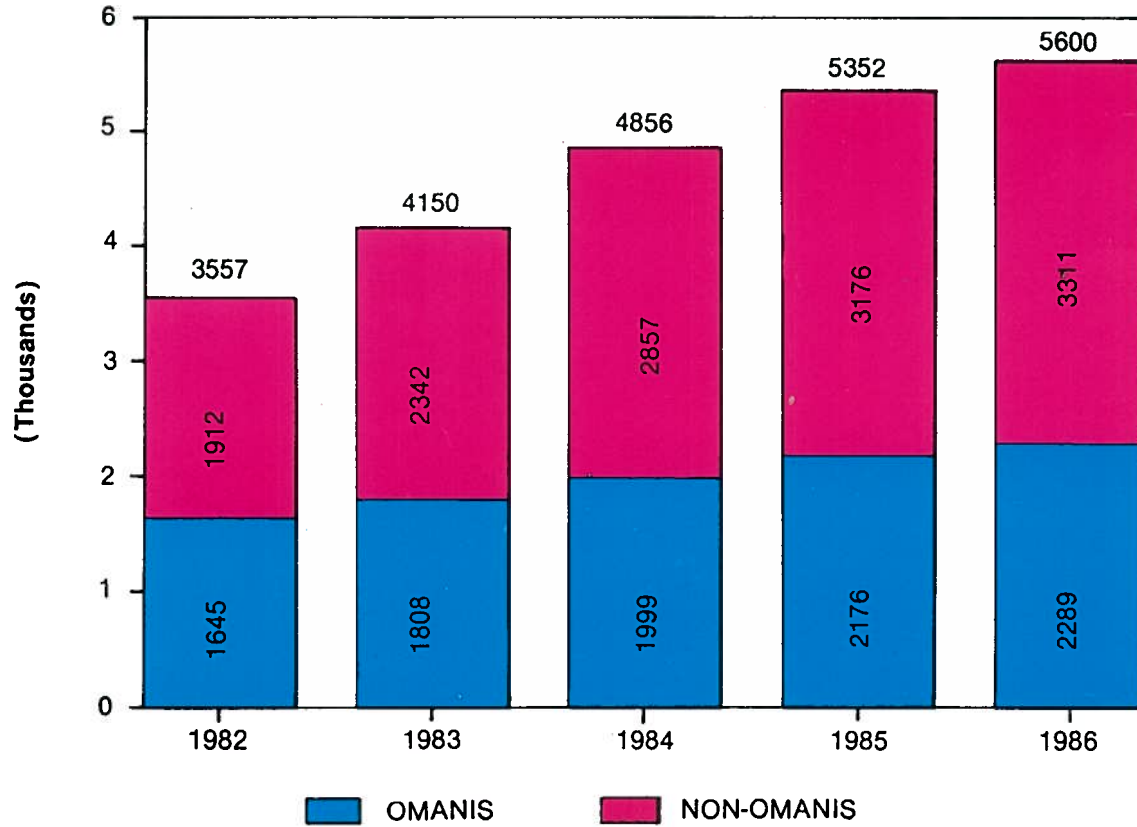


TABLE 5.2

Medical and Para-medical Staff Employed under Ministry of Health — 31.12.1986

Categories	Omanis			Non-Omanis			Total			Percentage of Omanis
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
<b><u>A. Doctors</u></b>	45	15	60	431	183	614	476	198	674	8.9
(i) Administrators	7	—	7	—	—	—	7	—	7	100.0
(ii) Advisor	1	—	1	—	—	—	1	—	1	100.0
(iii) Consultants	3	—	3	17	4	21	20	4	24	12.5
(iv) Sr. Specialists/ Specialists	6	3	9	67	32	99	73	35	108	8.3
(v) Asstt. Specialists	3	2	5	61	20	81	64	22	86	5.8
(vi) Medical Officers	25	10	35	286	127	413	311	137	448	7.8
<b><u>B. Dentists</u></b>	2	6	8	15	4	19	17	10	27	29.6
<b><u>C. Pharmacists</u></b>	2	1	3	13	7	20	15	8	23	13.0



Categories	Omanis			Non-Omanis			Total			Percentage of Omanis
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
<b><u>D. Nursing Staff</u></b>	125	171	296	109	1652	1761	234	1823	2057	14.4
<b><u>E. Other Para-Medical Staff</u></b>	1284	638	1922	601	296	897	1885	934	2819	68.2
(i) Chemists & Asstt. Chemists	—	1	1	2	1	3	2	2	4	25.0
(ii) Assistant Pharmacists	4	—	4	35	7	42	39	7	46	8.7
(iii) Dispensers	9	—	9	48	6	54	57	6	63	14.3
(iv) School Health visitors	—	—	—	—	47	47	—	47	47	0.0
(v) Midwives	—	1	1	—	96	96	—	97	97	1.0
(vi) Health Assistants	15	—	15	80	1	81	95	1	96	15.6
(vii) Medical Assistants	5	—	5	24	—	24	29	—	29	17.2
(viii) Sanitary Inspectors/ Supervisors	46	—	46	106	3	109	152	3	155	29.7

Categories	Omanis			Non-Omanis			Total			Percentage of Omanis
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
(ix) Sanitary Assistants	260	12	272	4	—	4	264	12	276	98.6
(x) Microbiologists/ Laboratory Technicians	18	8	26	119	69	188	137	77	214	12.1
(xi) X-ray Technicians	1	—	1	28	4	32	29	4	33	3.0
(xii) Radiographers	10	1	11	34	—	34	44	1	45	24.4
(xiii) Dental Technicians	3	—	3	8	1	9	11	1	12	25.0
(xiv) Physiotherapists/ Occupational Therapists	1	1	2	8	12	20	9	13	22	9.1
(xv) Medical Orderlies	880	610	1490	69	31	100	949	641	1590	93.7
(xvi) Others	32	4	36	36	18	54	68	22	90	40.0
<b>Total</b>	<b>1458</b>	<b>831</b>	<b>2289</b>	<b>1169</b>	<b>2142</b>	<b>3311</b>	<b>2627</b>	<b>2973</b>	<b>5600</b>	<b>40.9</b>
<b>Percentage of total Staff</b>	<b>26.0</b>	<b>14.8</b>	<b>40.9</b>	<b>20.9</b>	<b>38.3</b>	<b>59.1</b>	<b>46.9</b>	<b>53.1</b>	<b>100</b>	<b>—</b>

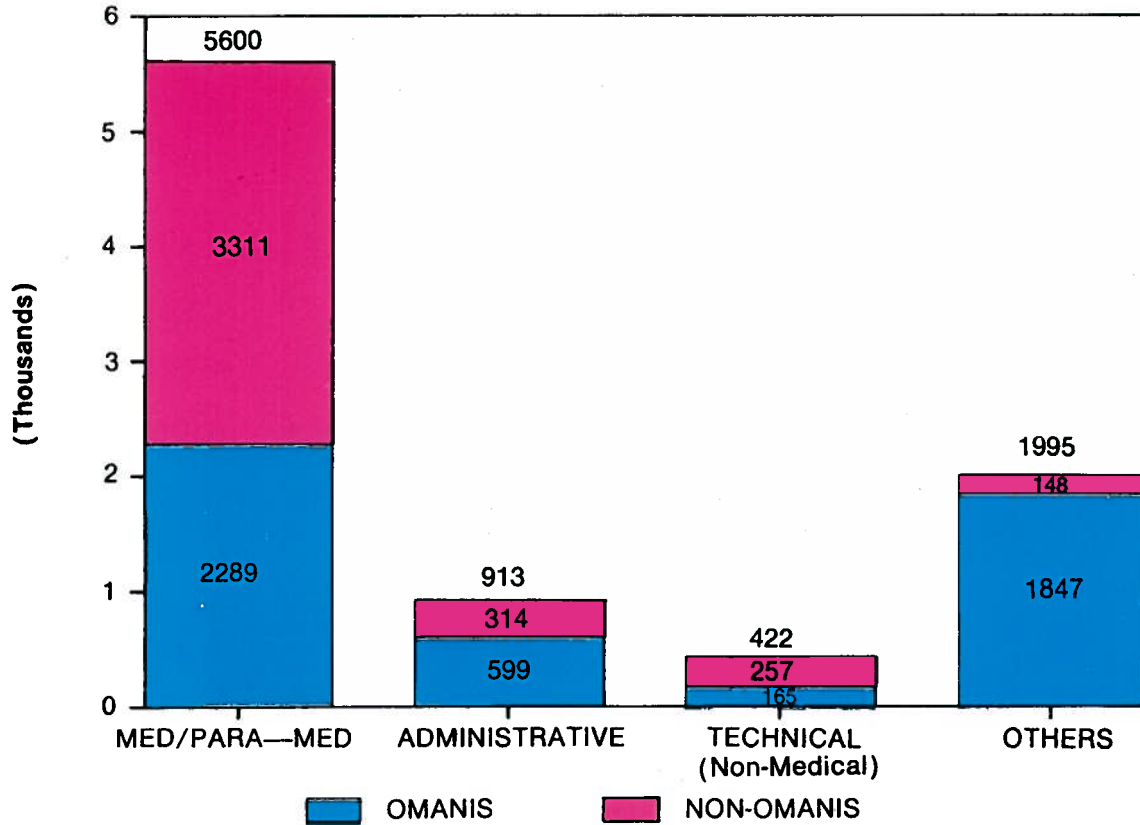
**TABLE 5.3**

**Medical/Para-medical and other staff Employed under Ministry of Health— 31.12.1986**

Categories	Omanis			Non-Omanis			Total			Percentage of Omanis
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Medical & Para-Medicals	1458	831	2298	1169	2142	3311	2627	2973	5600	40.9
Administrative Staff	520	79	599	238	76	314	758	155	913	65.6
Professional/Technical Staff (Other than Medical/Para-Medical)	165	—	165	257	—	257	422	—	422	39.1
Farrashes & Others	1592	255	1847	139	9	148	1731	264	1995	92.6
<b>Total</b>	<b>3735</b>	<b>1165</b>	<b>4900</b>	<b>1803</b>	<b>2227</b>	<b>4030</b>	<b>5538</b>	<b>3392</b>	<b>8930</b>	<b>54.9</b>
Percentage of Total Staff	41.3	13.1	54.9	20.2	24.9	45.1	62	38	100	—

# MEDICAL/PARA-MEDICAL & OTHER STAFF

EMPLOYED UNDER M.O.H. — 31.12.1986



**TABLE 5.4**

**Total Medical/Health Personnel — 31.12.1986**

Categories	Number employed under							Percentage of employees under Ministry of Health
	Ministry of Health	Forces Medical Services	Royal Oman Police	Petroleum Development Oman	Private Clinics	Private Pharmacies	Total	
Doctors	674	92	15	8	307	—	1096	61.5
Dentists	27	13	1	—	39	—	80	33.8
Pharmacists	23	20	—	1	—	180	224	10.3
Nursing Personnel	2057	149	36	35	256	—	2533	81.2
Other para-medical staff	2819	723	57	40	136	71	3846	73.3

**TABLE 5.5****Ratio of Health Services/Population in the Sultanate**

	1983	1984	1985	1986
Estimated population (In Millions)	1.5	1.5	2.0	2.0
Hospital Beds/10,000 population	16.75	19.73	16.05	16.74
Population/Bed	604	507	623	597
Doctors/10,000 population	5.23	6.33	5.17	5.48
Population/Doctor	1913	1581	1936	1825
Nurses/10,000 population	10.94	14.03	12.1	12.67
Beds/Nurse	1.51	1.41	1.33	1.32
Dentists/10,000 population	0.3	0.4	0.3	0.4
Pharmacists/10,000 population	0.8	1.0	1.1	1.1

## **6. HEALTH CARE PROVIDED BY OTHER DEPARTMENTS/ ORGANIZATIONS**

Though Ministry of Health is the main agency responsible for delivery of Curative, Preventive & Promotive services but some other departments and organizations are also engaged providing health care to their employees and their dependents. Private Companies and individuals also have their clinics. The other departments which provide both preventive and curative services to their employees & dependents include Ministry of Defence, Royal Oman Police and Petroleum Development Oman. These departments have 3 hospitals and 41 clinics with 507 beds employing 115 physicians, 14 dentists, 220 nursing staff and 841 other para-medics, treated 466,173 patients in OPD and conducted 235 major and 2,208 minor operations during 1986.

2. The number of private clinics by companies and individuals was 328 at the end of 1986 which included 273 general clinics, 18 specialized and 37 dental. The number of private pharmacies was 130 scattered around the country. The total of medical and para-medical staff in these units was 918 which included 14 specialists, 293 general duty physicians, 39 dentists, 180 pharmacists, 256 nursing staff and 136 other para-medics. During 1986, the private clinics treated 733,811 patients referring 8,175 to the hospitals and carried out 104,431 laboratory tests, 2,380 minor operations and 3,294 immunizations.

**TABLE 6.1**

**Health Facilities under Other Departments/Organizations — 31.12.1986**

Facilities	Forces Medical Services	Royal Oman Police	Petroleum Development Oman	Total
<b><u>Hospitals</u></b>				
Number	2	1	—	3
Beds	178	52	—	230
<b><u>Dispensaries</u></b>				
Number	29	2	10	14
Beds	220	23	34	277
<b><u>Bed reserved for</u></b>				
Surgery	58	10	—	68
Medicine	60	14	—	74
Gyn & Obs	—	12	5	17
Paediatrics	14	10	2	26
Isolation	31	—	—	31
ICU	6	—	—	6
Others	229	29	27	285
<b>Total beds</b>	<b>398</b>	<b>75</b>	<b>34</b>	<b>507</b>



TABLE 6.2

**Medical and Para-medical Personnel Employed Under other Departments/ Organizations — 31.12.1986**

Categories	Forces Medical Services			Royal Oman Police			Petroleum Development Oman			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Specialists/ Administrators	22	3	25	9	2	11	—	—	—	31	5	36
Medical Officers	62	5	67	3	1	4	8	—	8	73	6	79
Dentists	13	—	13	1	—	1	—	—	—	14	—	14
Staff-Nurses/Asstt. Nurses/Public Health Nurses	9	140	149	12	24	36	27	8	35	48	172	220
Mid-Wives	—	25	25	—	22	22	—	8	8	—	55	55
Health visitors	—	4	4	—	—	—	—	—	—	—	4	4
Health Assistants	—	—	—	—	—	—	7	—	7	7	—	7
Sanitary Inspectors	4	—	4	—	—	—	4	—	4	8	—	8
Sanitary Assitants	12	—	12	—	—	—	—	—	—	12	—	12
Laboratory Technicians/ Asstt. Lab. Technicians	27	1	28	6	2	8	3	1	4	36	4	40

Categories	Forces Medical Services			Royal Oman Police			Petroleum Development Oman			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Radiographers	7	1	8	—	3	3	—	1	1	7	5	12
X-ray Technicians/ Asstt. X-ray Technicians	8	—	8	2	—	2	—	—	—	10	—	10
Dental Technicians/ Asstt. Dental Technicians	36	1	37	1	—	1	—	—	—	37	1	38
Physiotherapists	9	5	14	—	2	2	—	1	1	9	8	17
Pharmacists	20	—	20	—	—	—	1	—	1	21	—	21
Asstt. Pharmacists	1	—	1	5	—	5	1	—	1	7	—	7
Medical Orderlies	481	3	484	—	14	14	10	—	10	491	17	508
Others	45	53	98	—	—	—	4	—	4	49	53	102
<b>Grand Total</b>	<b>756</b>	<b>241</b>	<b>997</b>	<b>39</b>	<b>70</b>	<b>109</b>	<b>65</b>	<b>19</b>	<b>84</b>	<b>860</b>	<b>330</b>	<b>1190</b>

**TABLE 6.3****Hospital Statistics for Other Departments/Organisations — 1986**

Activities	Forces Medical Services	Royal Oman Police	Petroleum Development Oman	Total
Admissions	7,718	741	469	8,928
Daily average of admissions	21	2	1	24
Discharges	7,639	735	461	8,835
Deaths	104	1	11	116
Patients treated in OPD	358,965	52,396	54,812	466,173
Daily average of patients treated in OPD	983	144	150	1,277
Major Operations done	121	114	—	235
Minor Operations done	1,651	541	16	2,208

**TABLE 6.4**

**Number of clinics and Medical Personnel in Private Sector by Regions — 31.12.1986**

Regions	Number of Clinics				Number of Medical Personnel available							
	General Clinics	Specialised Clinics	Dental Clinics	Total	Number of Private Pharmacies	Specialists	Medical Officers	Dentists	Pharmacists	Nursing Personnel	Other Paramedicals	Total
Capital Area	68	12	16	96	57	12	101	23	118	80	92	426
Al-Batinah	92	1	8	101	28	1	85	6	24	57	9	182
Interior	22	—	4	26	8	—	18	3	7	13	5	46
Eastern	34	—	2	36	12	—	30	1	11	14	2	58
Al-Dhahira	15	4	5	24	10	1	16	4	8	11	5	45
Southern	10	1	2	13	14	—	13	2	11	10	9	45
Northern	—	—	—	—	1	—	—	—	1	—	—	1
<b>Total</b>	<b>241</b>	<b>18</b>	<b>37</b>	<b>296</b>	<b>130</b>	<b>14</b>	<b>263</b>	<b>39</b>	<b>180</b>	<b>185</b>	<b>122</b>	<b>803</b>
<b>Private Companies</b>	<b>32</b>	<b>—</b>	<b>—</b>	<b>32</b>	<b>—</b>	<b>—</b>	<b>30</b>	<b>—</b>	<b>—</b>	<b>71</b>	<b>14</b>	<b>115</b>
<b>Grand Total</b>	<b>273</b>	<b>18</b>	<b>37</b>	<b>328</b>	<b>130</b>	<b>14</b>	<b>293</b>	<b>39</b>	<b>180</b>	<b>256</b>	<b>136</b>	<b>918</b>

**TABLE 6.5****Activities of Private clinics — 1986**

Activity	Numbers
Patients seen	733,811
Average number of patients per clinic per day	7
Laboratory tests done	104,431
Minor Operations carried out	2,380
Immunizations done	3,294
Patients referred to hospitals	8,175

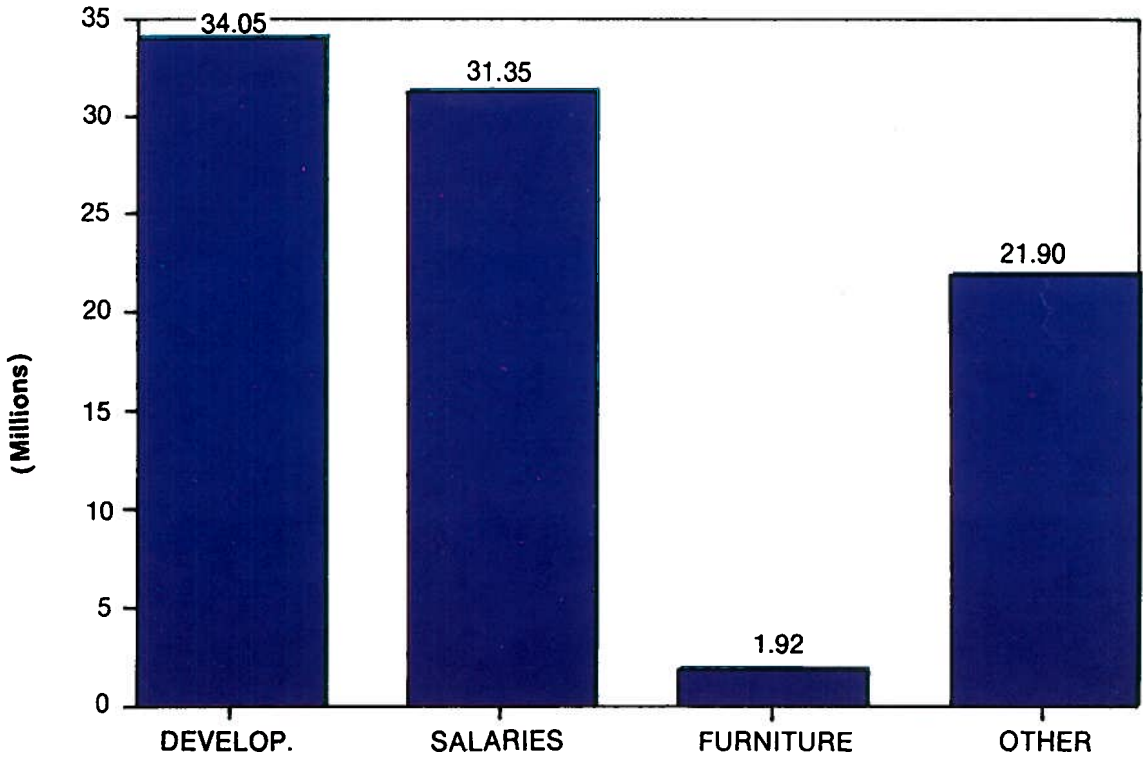
## 7. FINANCE

According to Royal Decree, the 1986 budget for civil purpose was R.O. 932 million. Out of this amount, the share of the Ministry of Health was R.O. 89.22 million (9.6% of total budget) which included 55.17 million or 61.8% for recurring expenditure and 34.05 million or 38.2% for development expenditure.

2. The recurring expenditure of 55.17 million included 31.35 million or 56.8% for salaries, 1.92 million or 3.5% for purchase of furniture and 21.90 million or 39.7% for other expenditure. The recurring expenditure other than salaries was distributed as under : -

(i) Directorate General of Pharmacy & Medical Supplies	...	...	6,030,500	
(ii) Directorate of General Services	...	...	2,687,301	
(iii) Directorate of Preventive Medicine	...	...	262,700	
(iv) Directorate of Curative Services	...	...	7,019,931	
(v) Directorate of General Stores & Accommodation	...	...	1,218,440	
(vi) National Health Programme Office	...	...	165,180	
(vii) Royal Hospital	...	...	4,314,516	
(viii) Other Directorates	...	...	2,119,432	
			<hr/>	
		<b>T o t a l :</b>	...	<b>23,818,000</b>
				<hr/>

# BUDGET - MINISTRY OF HEALTH - 1986



## Location of Curative and Preventive Units by Regions — 31.12.1986

Annex-B

Regions	Hospitals	Health Centres	Maternity Centres	Public Health Compounds	Public Health Units	Malaria Control Centres	Primary Health Care Units	MCH Centres
<u>Capital Area</u>	Khoula Al-Nahdha Ar-Rahma Assaada Muscat Ibn-Sina	Seeb Al-Khodh Seh Dhabi	—		Seeb Seh Dhabi		Yeti	Muttrah Darseit
<u>Al-Batinah</u>	Rustaq Sohar Saham W.B. Ghaffir Wadi Sarami Wadi Mistal Wadi Hawasna Wadi Hemli	Suwaïq Birka Abu Baqra Shinas Khabura Afi Hoqein Wadi Shafan Awabi Nakhai Liwa Wadi Sahtan Masnah	Heebi	Saham	Rustaq Sohar W.B. Ghaffir Wadi Sarami Wadi Mistal Wadi Hawasna Wadi Hemli Hoqein Wadi Shafan Liwa Wadi Sahtan	Rustaq Shinas Masnah	Al-Mashaiq	
<u>Interior</u>	Sumail Nizwa Bahla Halma Izki Adam Jabal Akhdar	Fanja Al-Hamra Manah Al-Ghafat Barkat Al-Mouz Wadi Mehran W.B. Rauwaha, Al-Mamoor	—	Sumail Nizwa	Bahla Izki Adam Al-Hamra Wadi Mehran	Adam W.B. Rauwaha		Ibra
<u>Eastern</u>	Ibra Sur B.B. Bu Ali B.B. Bu Hassan Sinaw Quriyat Masirah Wadi Tayeen W.B. Khalid Samad Al-Shaan Duqum Bidiya	Al-Kamil Al-Wafi Aiga Al-Dareez Tiwi Mudhaibi Mudherib Al-Ruwais Al-Haj Al-Dhahir Qumaila Ras Al-Had Al-Ashkara Al-Suwaih Dagmar Mazara Siya Halghaf Al-Ghaina	—	Sur	B.B. Bu Ali B.B. Bu Hassan Quriyat Masirah Wadi Tayeen W.B. Khalid Samad Al-Shaan Duqum Bidiya Al-Kamil Tiwi Mudherib Qumaila Al-Ashkara Mazara Siya Al-Ghaina	Ibra B.B. Bu Hassan Bidiya Mudhaibi		



Al-Dhahira	Tanam Buraimi Yankul Wadi Jizzi	Dhank Ibri Hajeermat Mamur Muqniyat Sunaina Al-Fayadh	Mahdha	Buraimi	Tanam Wadi Jizzi Dhank Sunaina Al-Fayadh	Yankul		
Southern	Qaboos Tawi Attair Rakhyut Sudh Madinat Al-Haq	Mirbat Taqa Thumrait Dhalqut Hasik Kuria Muria Haighaf Ashuwaimiyah Sheelim Mudhai Port Raysut Soghara Liqbi Jibjat Khadrafi Qeiron Heiriti Ghadow Shahib Assaib Sharbithat Al-Kahil Umbusheq Teytum Makinat Shahan Hadbeen		Salalah	Tawi Attair Rakhyut Sudh Madinat Al-Haq Dhalqut Jibjat Qeiron Heiriti Ghadow			
Northern	Bukha Baya Khasab	Liwa Kumzar	Madha		Khasab Kumzar	Baya		Bukha
Total	45	76	3	6	50	11	2	4

**KINGDOM OF SAUDI ARABIA**

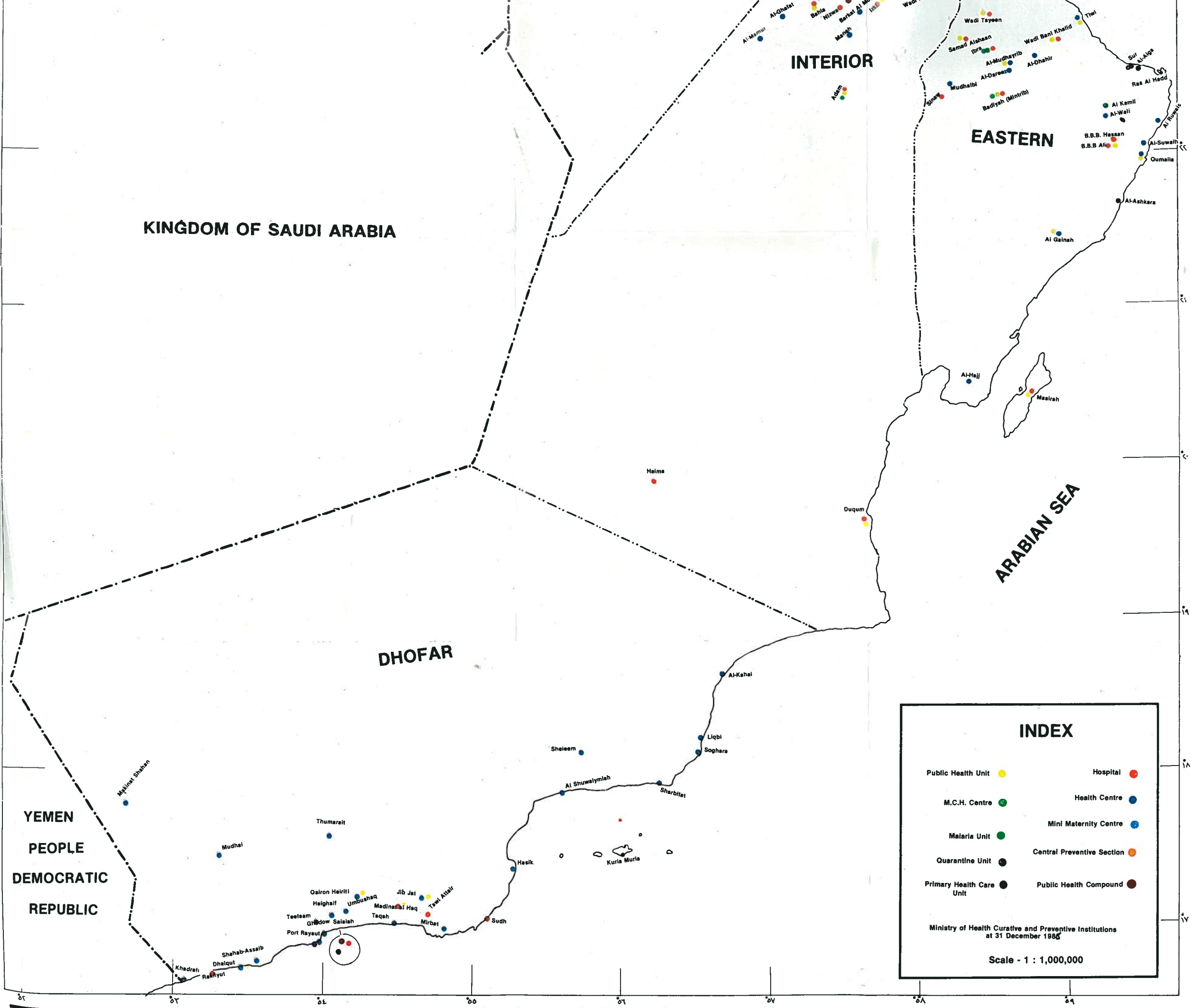
**INTERIOR**

**EASTERN**

**DHOFAR**

**ARABIAN SEA**

**YEMEN  
PEOPLE  
DEMOCRATIC  
REPUBLIC**



**INDEX**

Public Health Unit	<span style="color: yellow;">●</span>	Hospital	<span style="color: red;">●</span>
M.C.H. Centre	<span style="color: green;">●</span>	Health Centre	<span style="color: blue;">●</span>
Malaria Unit	<span style="color: green;">●</span>	Mini Maternity Centre	<span style="color: blue;">●</span>
Quarantine Unit	<span style="color: black;">●</span>	Central Preventive Section	<span style="color: orange;">●</span>
Primary Health Care Unit	<span style="color: black;">●</span>	Public Health Compound	<span style="color: brown;">●</span>

Ministry of Health Curative and Preventive Institutions  
at 31 December 1985

Scale - 1 : 1,000,000

