

Chapter 3 Existing Conditions by Province/City

3.1. Health Situation of Davao del Sur

3.1.1. Health and sanitation condition

(1) Demographic data

According to the 1995 census, the total population of Davao del Sur was 677,069. Population and its growth rate from 1990 to 1995 by municipality is shown in Table 9. The most populous municipality is Digos and the smallest is Sarangani. The highest growth rate is found in Kiblawan (2.76%) and the lowest in Sta. Maria (0.92%) and Bansalan (0.93%).

Table 9 Population by Municipality Davao del Sur, 1990-95

Municipality	No. of Barangays	Population		Growth Rate
		1990	1995	
Bansalan	24	46,691	48,894	0.93
Digos	26	96,806	106,565	1.94
Don Marcelino	15	27,100	29,968	2.03
Hagonoy	22	39,005	41,752	1.37
Jose Abad Santos	26	44,504	47,833	1.45
Kiblawan	30	31,753	36,375	2.76
Magsaysay	22	38,531	41,979	1.73
Malalag	15	27,709	30,733	2.09
Malita	30	82,786	83,457	0.16
Matanao	33	41,262	43,455	1.04
Padada	17	21,051	22,384	1.24
Sta. Cruz	18	55,951	59,139	1.11
Sta. Maria	22	40,036	41,919	0.92
Sarangani	12	15,003	16,648	2.10
Sulop	25	24,513	25,968	1.16
Davao del Sur	337	632,701	677,069	1.36

Source: National Statistics Office, Census of Population 1990 and 1995

(2) Crude Birth Rate (CBR) and Crude Death Rate (CDR) by municipality

Table 10 and Table 11 show CBR and CDR from 1993 to 1996. There are several facts identified from these statistics. First, the CBR jumped from 1995 to 1996 in two municipalities: Jose Abad Santos and Padada (Table 2). Municipalities such as Sta. Maria and Bansalan with relatively higher CBR showed lower growth rates. This could be due to out-migration, high death rate and other factors.

Secondly, the CDR in the province increased significantly from 2.04% in 1995 to 2.9% in 1996 as shown in Table 11 and Figure 2. In particular, Hagonoy increased from 0.46% to 3.6%, and Sta. Cruz from 0.83% in 1995 to 3.19% in 1996. The CDR is quite high in Bansalan from 1993 to 1996, while Padada is significantly improving during this period.

Table 10 Crude Birth Rate by Municipality Davao del Sur, 1994-96

Municipality	1993	1994	1995	1996
Bansalan	21.92	21.14	22.07	20.61
Digos	20.34	6.14	14.47	20.66
Don Marcelino	23.36	24.03	22.99	22.66
Hagonoy	17.97	14.88	15.09	19.52
Jose Abad Santos	18.24	16.49	16.81	28.58
Kiblawan	19.24	20.78	17.68	19.05
Magsaysay	18.32	16.94	15.63	15.41
Malalag	25.27	20.19	18.09	20.43
Malita	19.67	15.03	16.65	21.52
Matanao	21.16	19.45	20.94	16.24
Padada	18.27	13.73	12.11	28.94
Sta. Cruz	20.77	22.31	22.93	(NR)
Sta. Maria	20.72	19.21	20.66	22.15
Sarangani	17.44	10.61	8.53	(NR)
Sulop	20.66	18.7	19.73	21.43
Davao del Sur	20.23	19.00	17.84	18.53

Source: Department of Health

Table 11 Crude Death Rate by Municipality per 1,000 population, 1993-1996

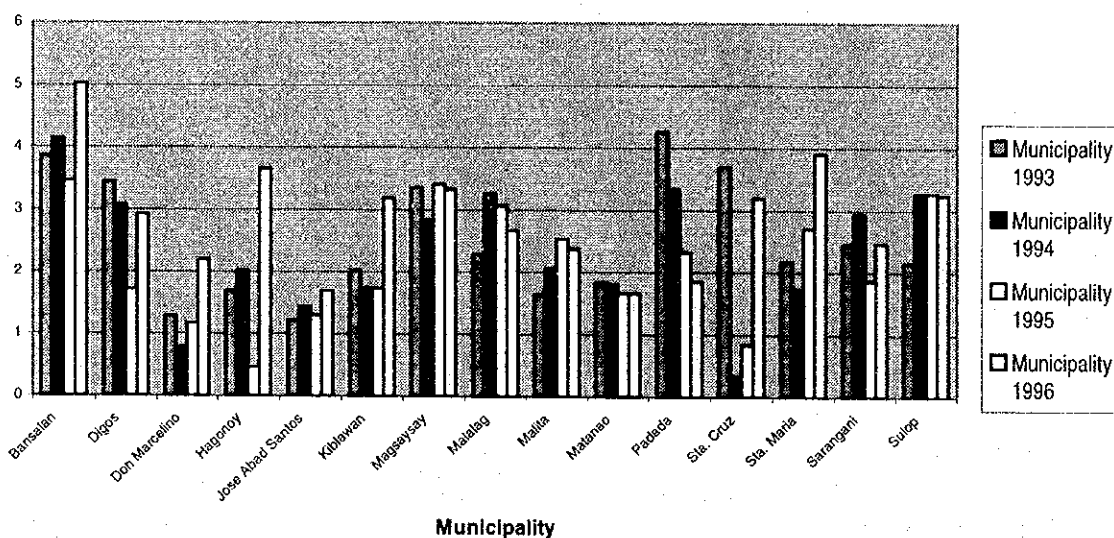
Municipality	1993	1994	1995	1996
Bansalan	3.86	4.14	3.46	5.02
Digos	3.44	3.08	1.71	2.92
Don Marcelino	1.29	0.78	1.17	2.19
Hagonoy	1.69	2.01	0.46	3.66
Jose Abad Santos	1.21	1.44	1.3	1.69
Kiblawan	2.02	1.74	1.73	3.18
Magsaysay	3.36	2.83	3.41	3.32
Malalag	2.28	3.25	3.06	2.67
Malita	1.64	2.05	2.53	2.37
Matanao	1.83	1.8	1.66	1.66
Padada	4.26	3.33	2.32	1.85
Sta. Cruz	3.69	0.32	0.83	3.19
Sta. Maria	2.17	1.73	2.7	3.9
Sarangani	2.45	2.93	1.86	2.46
Sulop	2.15	3.27	3.27	3.24
Davao del Sur	2.54	2.35	2.04	2.93

Source: PHO, Davao del Sur

Don Marcelino and Jose Abad Santos (JAS) have the lowest CDR in the province. This may be explained in two ways. One is that people are simply healthier in those areas and the other explanation could be unrecorded deaths outside hospitals since these municipalities have very limited hospital facilities. Don Marcelino has only 10 beds in the whole municipality and JAS has also only 25 beds. Likewise,

Matanao has a lower CDR with only 39 hospital beds in both its government and private hospitals. Matanao is geographically very close to Digos and Hagonoy having 430 and 132 beds, respectively. Both have higher CDRs. Matanao's lower CDR might also be due to better health situation than the municipalities of J.A.S and Don Marcelino. An interesting observation is that Bansalan and Matanao, with their high and low CDRs, respectively, are located geographically next each other.

Figure 2 Crude Death Rate by Municipality per 1,000 Population 1993-1996



(3) Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR) by municipality

The IMR by municipality is shown in Table 12. These figures are taken from Provincial Health Office (PHO) statistics and are much lower than figures from National Statistics Office (NSO) shown in Table 1. According to the PHO statistics in Table 4, IMR has been slightly decreasing. Sarangani has the highest rate of 51.7 per 1,000 live births in 1994, followed by Digos (44.5) and Jose Abad Santos (21.8). Digos has decreased dramatically to 5.71 per 1,000 live births in 1996. Places with increased IMR from 1994 to 1996 are Don Marcelino, Kiblawan, Magsaysay, Malalag, and Sta. Maria.

Figures are not available to determine MMR except some figures for leading causes of maternal mortality. The number one cause of maternal mortality is postpartum hemorrhage (9). Other causes are septicemia (2), retained placenta (1), and hypertension (1). It is believed that areas isolated by insufficient infrastructure could have higher incidence of maternity deaths but this is not reflected in statistics.

(4) Disease pattern

The number one leading cause of mortality in the province is heart diseases, followed by pneumonia, accidents, and PTB in 1996. This result shows that the disease pattern in the province is in the middle of epidemiological transition and non-communicable or degenerative diseases are taking over the place of

communicable diseases. However, those communicable diseases such as pneumonia and PTB are also slightly increasing probably due to weakening of disease control programs.

The leading causes of mortality by municipality in 1993 are shown in the table and maps. Pneumonia related death is high in Digos, followed by Bansalan and Sta. Cruz. Septicemia related deaths is higher in Digos, Malalag and Bansalan. PTB related deaths are concentrated in Sarangani, Kiblawan, and Hagonoy, Digos. Vascular diseases is high in Bansalan, Malalag, and Padada. Kidney diseases are high in Bansalan, Magsaysay, and Sta. Maria.

Table 12 Infant Mortality Rate by Municipality per 1,000 Live Births, 1994-96

Municipality	1994	1995	1996
Bansalan	13.44	12.97	6.88
Digos	44.58	8.43	5.71
Don Marcelino	6.80	5.69	10.10
Hagonoy	1.55		1.21
Jose Abad Santos	21.80	11.19	13.70
Kiblawan	2.79	6.22	9.83
Magsaysay	15.56	16.77	18.24
Malalag	3.29	3.60	9.36
Malita	11.37	8.63	7.11
Matanao	3.30	1.10	1.06
Padada	15.97	22.14	2.72
Sta. Cruz	0.76		6.80
Sta. Maria	8.17	2.31	9.61
Sarangani	51.72	35.21	15.70
Sulop	4.26	7.79	3.55
Davao del Sur	9.81	7.20	8.97

Source: PHO, Davao del Sur

The disease pattern by municipality reveals the high incidence of diseases concentrated in the northern part of the province. The concentration of health facilities in those areas might be attributed to the efficient reporting of cases of sickness. Pneumonia cases are concentrated in Sta. Cruz, Bansalan, and Digos, while TB cases are concentrated in Digos, Hagonoy and Kiblawan. Sarangani has high incidence of both TB and pneumonia.

Leading causes of diseases in the province as a whole are influenza, acute respiratory infection, diarrhea, pneumonia, and bronchitis. The number of cases of influenza and pneumonia increased from 14,933 cases and 5,069 cases in 1994 to 17,457 cases and 5,622 cases in 1996, respectively.

Leading causes of infant mortality are pneumonia, unknown, vascular disease, meningitis and accident, and prematurity. High rates of diarrhea are found in Sarangani (0.23%), Digos (0.16%) and Sta. Cruz (0.16%). Broncho-pneumonia is high in Sta. Cruz (0.4%), Digos (0.18%), Padada (0.14%) and Sarangani (0.14%). Septicemia is high in Bansalan (0.04%), Digos (0.02%), Magsaysay (0.02%), and

Matanao (0.02%). One case each of meningitis was found in Hagonoy and Sta. Cruz in 1993.

(5) Nutrition

A survey of the nutrition status of pre-schoolers from 1993 to 1996 shows that the ratio of total malnourished pre-schoolers to total number of pre-schoolers declined from 40.5% in 1993 to 35% in 1996. However, the rate of third degree malnutrition did not change during the same period.

Nutritional status of elementary school children is shown in Table 13. Severe underweights are high in Sarangani (7.4%), Sta. Maria (2.01%), Digos Oriental (1.23%), and Malalag (0.89%). Matanao I, Sta. Cruz South and North, Bansalan West have higher number of total underweight, while severe cases are very low.

Table 13 Nutrition Status of Elementary School Children, 1996-1997

	Total Weighed	Severe	%	Total Underweight	%
Bansalan West	4248	0	0.00%	1458	34.32%
Digos Occ	6617	19	0.29%	1760	26.60%
Digos Or	8949	110	1.23%	1708	19.09%
Don Marcelino	4456	17	0.38%	470	10.55%
Kiblawan	6071	37	0.61%	1276	21.02%
M'say North	3484	0	0.00%	971	27.87%
M'say So	4665	20	0.43%	1175	25.19%
Malalag	5283	47	0.89%	1570	29.72%
Malita North	9121	59	0.65%	1709	18.74%
Matanao I	3617	0	0.00%	1300	35.94%
Mt. Apo	2927	23	0.79%	673	22.99%
Sarangani	5294	392	7.40%	346	6.54%
Sta. Cruz So	6158	29	0.47%	2148	34.88%
Sta. Cruz Nr	5853	18	0.31%	1822	31.13%
Sta. Maria	8213	165	2.01%	2426	29.54%

Source: DECS

(6) Water and sanitation

Table 14 shows domestic water supply situation by municipality. There are four municipalities without Level III water supply system, namely, Don Marcelino, Jose Abad Santos, Sarangani, and Sulop. Also, these places have the lowest water supply service ratio of 50% or lower.

Sanitation situation in the province is improving. The ratio of households with sanitary toilets to the total number of households increased from 39.7% in 1990 to 66.8% in 1996. However, the ratio of households without toilets has not significantly improved (Table 15). Those municipalities having higher ratios of households without toilets are Don Marcelino (53.1%), Malalag (47.5%), Sarangani (47.2%), Sta Cruz (43.0%), Jose Abad Santos (39.0%), and Malita (38.3%).

The problem is poor monitoring of sanitation due to the very limited number of sanitary inspectors hired. In 1996, the provincial health office hired 33 sanitary inspectors. Digos had the most number (5), followed by Hagonoy (3) and Sta. Cruz (3). The municipalities of JAS, Don Marcelino, and Padada had only one sanitary

inspector each. To solve this problem, Matanao organized a pool of volunteer sanitary inspectors in every barangay called Barangay Sanitary Inspectors Association (BSIA). BSIA aims to ensure the proper maintenance of water and environment sanitation in their communities.

Table 14 Water Supply Facilities, 1995

Municipality	1995	1995	Share of Water Supply System			Water Supply Service Ratio (%)
	Total	Total	Water Supply System (%)			
	Population	Households	Level I	Level II	Level III	
Bansalan	48,894	9,711	38.7	38.3	23.0	82.9
Digos	106,565	18,209	48.8	19.8	31.3	72.8
Don Marcelino	29,968	5,494	82.5	17.5	0.0	51.2
Hagonoy	41,752	7,974	93.1	3.8	3.1	77.8
Jose Abad Santos	47,833	8,720	73.9	26.1	0.0	47.9
Kiblawan	36,375	6,267	81.9	9.7	8.4	69.4
Magsaysay	41,979	6,755	58.2	19.5	22.3	59.2
Malalag	30,733	5,638	87.2	4.7	8.2	62.8
Malita	83,457	16,863	79.8	9.6	10.6	62.3
Matanao	43,455	7,449	47.3	36.4	16.3	74.9
Padada	22,384	4,296	80.0	6.3	13.8	66.8
Sta. Cruz	59,139	10,926	60.7	18.6	20.7	64.4
Sta. Maria	41,919	7,228	74.7	7.9	17.4	75.6
Sarangani	16,648	2,874	48.7	51.3	0.0	47.1
Sulop	25,968	5,048	96.9	3.1	0.0	52.0
Davao del Sur	677,069	123,452	66.8	17.9	15.4	66.3

Source: PHO, Davao del Sur

Table 15 Ratio of Households without Toilets by Municipality (1994 and 1996)

	No. of Households		Unsatisfactory Toilets			
	1994	1996	1994	%	1996	%
Digos	18613	22094	4778	25.67%	3878	17.55%
Sta. Cruz	10806	11954	5450	50.43%	5141	43.01%
Bansalan	8999	10127	3595	39.95%	3581	35.36%
Hagonoy	7384	8541	1890	25.60%	1302	15.24%
Malalag	5343	6224	3326	62.25%	2958	47.53%
Sta. Maria	7725	8201	3144	40.70%	2714	33.09%
Malita	15970	16636	7031	44.03%	6366	38.27%
Don Marcelino	5229	5850	3200	61.20%	3108	53.13%
Kiblawan	6126	7313	1395	22.77%	1085	14.84%
Padada	4060	4608	1287	31.70%	961	20.86%
Sulop	4726	5364	1952	41.30%	1516	28.26%
Matanao	7960	8559	1334	16.76%	1256	14.67%
Magsaysay	7434	8412	2158	29.03%	2052	24.39%
Jose Abad Santos	8587	9502	3624	42.20%	3704	38.98%
Sarangani	2892	3203	1512	52.28%	1511	47.17%

Source: PHO, Davao del Sur

3.1.2. Health system and facilities

(1) Health facilities and equipment

Davao del Sur has seven governmental hospitals and 63 private hospitals and clinics. The number of existing health facilities by type by municipality are shown in Table 16. The Davao del Sur Provincial Hospital is considered as a tertiary hospital with

100 beds. The number of private hospitals/clinics increased from 36 in 1993 to 65 in 1996. According to the 1994 figure, the total hospital beds in Davao del Sur is 1,345. Using the standard ratio of one hospital bed to 500 population, the province's ratio of 1:503 is already standard.

Table 16 Number of Existing Facilities by Type by Municipality; Private and Public, 1996

Municipality	Number of Barangays	No. of Public Hospital	No. of Beds	No. of Private Clinic/Hosp	No. of HC	No. of Barangay Health Stations
Bansalan	24	0	0	6	1	14
Digos	26	1	100	26	2	19
Don Marcelino	15	1	10	0	1	10
Hagonoy	22	0	0	3	1	10
Jose Abad Santos	26	1	25	0	1	15
Kiblawan	30	1	25	1	1	10
Magsaysay	22	0	0	2	1	11
Malalag	15	0	0	5	1	7
Malita	30	1	15	3	1	20
Matanao	33	1	15	1	1	11
Padada	17	0	0	5	1	4
Sta. Cruz	18	0	0	6	1	13
Sta. Maria	22	0	0	3	1	10
Sarangani	12	1	10	0	1	5
Sulop	25	0	0	4	1	7
Davao del Sur	337	7	200	65	16	166

Source: PHO, Davao del Sur

Each municipality has at least one Main Health Center (MACS); however, the number of Barangay Health Stations (BHSs) is not enough. Out of 337 barangays in the province, only half of barangays have BHSs.

In terms of the quality of services at each level of health services, many constraints exist which make it difficult for health facilities to perform at their maximum capacity. Those constraints identified are: all municipalities have insufficient supply of drugs in the rural health center and BHSs; basic medical equipment such as blood pressure apparatus and weighing scales in the health centers are not sufficient in all municipalities; and most of BHSs have a problem of total lack of minimum basic equipment and instruments. Isolated areas like Sarangani islands should have a well equipped and functional hospital, but the hospital in these areas has insufficient equipment and facility to perform even minor surgery and does not have even minimum basic facilities such as water in the hospital. Other constraints such as unsafe water and unsanitary toilets are common in all health centers.

A total of 65 private hospitals and clinics are found in Davao del Sur. Digos has 26 mostly located in the Poblacion and offer health service mainly to the people covered by MEDICARE. On the other hand, there are three places without any private health facilities, namely, Don Marcelino, JAS, and Sarangani. In those places where the public health facilities are the only health service provider, it is most important to have enough quantity and good quality of services.

(2) Health personnel

Table 17 shows the ratio of government health personnel to the population. Apparently, Davao del Sur has a better ratio of health personnel in each category except dentists. However, there is a geographical difference among municipalities. Those municipalities having a smaller number of health personnel in proportion to the population are Hagonoy, Magsaysay, and Santa Cruz. Digos has the best ratio as expected. Next in rank is Malita with government health personnel of 34.

Table 17 Number of Government Health Personnel and Ratio to the Population by Municipality, 1996

Municipality	Population	Physicians		Nurses		Midwives		Dentists		Med. Tech.	
		No.	Ratio	No.	Ratio	No.	Ratio	No.	Ratio	No.	Ratio
Bansalan	49,349	1	1:49349	3	1:16449	15	1:3290	1	1:49349	1	1:49349
Digos	108,632	27	1:4023	35	1:3104	23	1:4723	3	1:36211	3	1:36210
Don Marcelino	30,576	3	1:10192	6	1:5096	10	1:3058	1	1:30576	1	1:30576
Hagonoy	42,324	1	1:42324	2	1:21162	11	1:3848	1	1:42324	0	0
Jose Abad Santos	48,527	4	1:12132	5	1:9705	16	1:3033	2	1:24263	1	1:48527
Kiblawan	37,379	5	1:7476	8	1:4672	11	1:3398	2	1:18689	1	1:37379
Magsaysay	42,705	1	1:42705	2	1:21352	12	1:3882	1	1:42705	0	0
Malalag	31,375	1	1:31375	2	1:15688	8	1:3922	1	1:31375	1	1:31375
Malita	83,591	4	1:20898	8	1:10449	21	1:3980	1	1:83591	2	1:41795
Matanao	43,907	3	1:14636	2	1:21953	12	1:3659	1	1:43907	1	1:43907
Padada	22,661	1	1:22661	2	1:11330	5	1:4532	1	1:22661	1	1:22661
Sta. Cruz	59,795	1	1:59795	2	1:29897	3	1:4600	1	1:59795	1	1:59595
Sta. Maria	43,305	1	1:42305	3	1:14102	11	1:3846	1	1:42305	0	0
Sulop	16,998	3	1:15666	6	1:2833	4	1:4250	1	1:16998	1	1:16998
Sarangani	26,269	1	1:26269	2	1:13134	8	1:3284	1	1:26269	0	0
Davao del Sur	687,393	57	1:12040	88	1:7799	170	1:4043	19	1:36120	14	1:49099

Source: PHO, Davao del Sur

The province lacks dentists and its ratio of 1:36,120 is far from the standard ratio of 1:20,000. Likewise, the province is short of medical technologists. Hagonoy, Magsaysay, Santa Maria, and Sulop do not have any medical technologist.

3.1.3. Disease control programs

(1) Expanded Program on Immunization (EPI)

The EPI program is one of continuous government efforts to prevent diseases. Immunization coverage of the diseases are high except tetanus toxoid for mothers (47.4% in 1995). National Immunization Day has been implemented in the province. The first National Immunization Day was launched in 1993 supported by all sectors of society. According to an EPI report in 1995, those municipalities which had relatively better access to health services had relatively lower coverage: Magsaysay, Padada, Hagonoy, Santa Cruz, Sulop and Digos; and those places having difficulties to access health facilities have higher EPI coverage: JAS, Don Marcelino, Malita, Sta. Maria and Sarangani.

(2) TB control program

The TB program is also one of those national vertical programs. It consists of active case finding and treating sputum positive patients under Short Course

Chemotherapy drug regimen (SCC). However, the problem seen in the field is that there is not enough drugs for SCC. As a result, TB, especially pulmonary TB, is still number five leading cause of deaths in the province.

(3) Maternal and child health care program

Maternal and Child Health Care Program consists of three activities: pre-natal consultation, deliveries and post natal care. In 1993, out of 13,549 live births, 88% of deliveries took place at home. About 8% of deliveries were attended by untrained traditional birth attendant (hilot) in the area. Maternal deaths are not considered so significant in the province as a whole, but concern should be given to those physically isolated areas like southern part of JAS and Sarangani islands having difficulty in access to health services in cases of emergency.

In addition, a breast-feeding program is undertaken by the Government under the Mother Baby Friendly Hospital Initiative. Three out of seven governmental hospitals in the province are Mother Baby Friendly hospitals, namely: the Provincial Hospital, Gregorio Matas District Hospital in Kiblawan and Malita Municipal Hospital

(4) Other programs

In recent years, the provincial government has been concerned with the emerging problem of non-communicable diseases such as heart disease, cancer, and hypertension. In 1992, the Cancer Control Program was launched. It was aimed at doing early detection and prevention through breast examination and pap smear tests. However, the problem seen was the lack of sufficient medical laboratory facilities in the field. The pap smear samples took too long to analyze since the samples had to be sent all the way to the Provincial Hospital medical laboratory. The program also conducts anti-smoking campaign and hepatitis B vaccination.

The National Vascular Disease Program was launched in 1995. Also in that same year, the Physical Fitness Program was added. In addition, the Rheumatic Fever/Rheumatic Heart Disease Program was also implemented in Ramon Magsaysay Elementary School.

3.2. Health Situation of Davao City

3.2.1. Health and sanitation conditions

(1) Population and urban-rural distribution

The total population of 1,06,840 persons according to the 1995 census of population, is the second largest in DIDP Area. The population growth rate was 3.2% during 1992-95. The rapid population growth is due mainly to in-migration of people looking mainly for work in the city.

The most populous district is Buhangin (16.1%), followed by Poblacion (14.4 percent), and Talomo North (13.2%). Two largest districts, namely Paquibato and Marilog districts, have only 3.2% and 3.8% of the total population, respectively. Urban areas have almost 80% of the total population. This situation has resulted to a growing squatter problem followed by all kinds of poverty-related health problems including malnutrition among children. Increasing number of population in urban areas is exerting tremendous pressure on governmental services and facilities.

Table 18 Population by District and Percentage to the Total Population

	1997	% to the total Pop'n.
District A	43,231	4.03
District B	41,247	3.85
District C	38,778	3.61
District D	31,016	2.89
Agdao	93,720	8.74
Baguio	22,061	2.06
Buhangin	172,628	16.09
Bunawan	86,533	8.07
Calinan	62,613	5.84
Marilog	40,267	3.75
Paquibato	33,851	3.16
Talomo Nr	141,766	13.22
So Talomo	106,751	9.95
Toril	100,479	9.37
Tugbok	57,781	5.39
Total	1,072,722	100

Source: City Health Office, Davao City

(2) Crude Birth Rate (CBR), Crude Death Rate (CDR), Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR)

In the last 10 years, CBR, CDR, IMR and MMR in the City as a whole have been declining. The CBR dropped from 34.9 per 1,000 population in 1986 to 28.7 per 1,000 population in 1996. The CDR has been gradually declining from 5.6 per 1,000 population in 1987 to 4.7 per 1,000 population in 1996. IMR also has declined from 15.4 per 1000 live births to 11.5 per 1,000 live birth, and MMR dropped from 0.8 per 1,000 live birth to 0.27 per 1,000 live births during the same period. Rates by district are not available.

(3) Disease pattern

Ten leading causes of mortality of all ages in the City in 1997 were: 1) hypertensive vascular disease, 2) coronary artery disease, 3) cancer, 4) pneumonia, 5) tuberculosis, 6) congestive heart disease, and 7) others. From 1991 to 1995, cancer was the fifth leading cause while pneumonia and TB were third and fourth, respectively. This changing pattern shows that the epidemiological transition is happening rapidly in the City and non-communicable degenerative diseases are becoming more dominant than communicable diseases.

The leading causes of morbidity of all ages are: 1) acute respiratory infection, 2) diarrhea, 3) bronchitis, 4) influenza, 5) TB respiratory, 6) pneumonia, and 7) others. However, there is large geographical difference among districts. For example, from January to June this year, Agdao had 3,848 cases of influenza, while the second highest district was Marilog with 435 cases. Incidence of communicable diseases was more serious in the hinterlands of the City where medical care was still inadequate. Diarrhea topped the list with the number of cases recorded in 1991 in those districts of Malilog, Paquibato, Tugbok, Baguio and Calinan. Dengue fever and cholera incidence were also high in those places.

The leading causes of maternal mortality are: 1) incomplete abortion, post-partum hemorrhage, and hypertension in pregnancy (0.07 per 1,000 live births each), 2) Intrapartum sepsis, and 3) partial placenta increta.

The leading causes of infant mortality in 1996 were: 1) stillbirths, 2) pneumonia, 3) prematurity, 4) congenital anomaly, and 5) Sepsis Neonatorum, and others.

(4) Nutrition

The Davao City Health Office has been seriously concerned about the nutrition status of preschoolers and lactating mothers. This government effort is called Supplementary Feeding Program which provides fresh milk daily to identified preschoolers and school children in Davao City. Nutripaks are given to barangays and areas which could not be serviced by the fresh milk feeding program. Also, an NGO-based nutrition program has been implemented since 1975 particularly for Christian communities in urban slum areas such as Agdao, Fatima, Sasa and Barrio Obero.

Based on the Operation Timbang (OPT) survey in 1992, there were 19.8% of preschoolers who were moderately and severely malnourished. In 1995, the same degree of malnourished preschoolers decreased to 8.8%. This is quite a significant improvement in this short period of time and the contribution of such nutrition program could be a major part of the reason.

(5) Water and sanitation

Davao City is covered by the Davao City Water District (DCWD) commercial system only in the urbanized area. The remaining area is still obtaining water from various sources such as streams, groundwater with jetmatic pump, artesian well, and springs.

The situation of toilet facility in the City is better than in other DIDP provinces (Table 4), however, urban squatter areas have insufficient toilet facility causing public health problems. The City Health Office is now implementing a project to put public toilets in those urban slum areas. The users are charged minimum amount to maintain those public owned toilets. In rural areas, however, water and sanitation related diseases such as diarrhea and cholera are rampant due to insufficient sanitation facilities.

Disposal of garbage from city households is another problem in the City. The Department of Public Services (DOS) collects and disposes garbage 24 hours daily, but environmental sanitation in dumping areas is now a major concern.

3.2.2. Health system and facilities

(1) Health facilities and equipment

The City has five tertiary hospitals: one government (DMC) and four private, which are all located in Poblacion. There are also 13 secondary hospitals and over 130 primary hospitals/clinics in the City, however, the only government owned hospital in this level is Paquibato Municipal Hospital with 10 beds. The rest are privately owned and are mostly concentrated in the Poblacion. For the primary level health care, the City has 16 Main Health Centers (MHCS) and 84 Barangay Health Stations (BHSs) in 180 barangays.

The problems related to health facilities in the City can be summarized mainly into three areas. One major problem is that, because of inadequate number of secondary and primary hospitals in the rural areas, particularly government owned hospitals, adequate curative health care is not given to the poor living in the interior areas. As a consequence, many patients who are too poor to use private health facilities flock to the Davao Medical Centre (DMC) rendering the Center inefficient.

The adequacy of primary health care services delivery is another problem. The number of MHCs (16) is absolutely small. According to the standard MHC to population ratio, 33 more MHCs were needed in 1995 (Table 4) to serve primary level services to the populace. The same problem characterizes the adequacy of BHSs. Out of 180 barangays in the City, only 84 barangays have BHSs. The ratio of BHS to population in 1994 was 1:14,020 which is far from the standard ratio of 1:5,000. Based on 1994 data, the City needs 121 more BHSs as a whole.

Along with inadequate health facilities in the City, the problem of inadequate equipment and instruments at primary level health facilities is making health personnel at this level inefficient and incompetent.

The third problem about PHC service is in the urban area. The size of urban health centers located in the most populated areas of the City proper are not catching up with the rapidly increasing population. As a consequence, the quality of service and the comfort of patients are hampered by congestion.

(2) Health manpower

The City Health Office has 24 physicians, 54 nurses, 103 midwives, 16 medical technologists, 14 dentists and 15 sanitary inspectors. Of the 103 midwives, 40 are under the Philippine Health Development Project (PHDP) or contractual under DOH. Those assigned in the field are 54 nurses, 103 midwives, 14 dentist, 16 medical technologist and a total of 116 barangay health workers.

The ideal ratio of health workers to population has not been attained to date as shown in Table 19. The midwife-population ratio of 1:14,288 in 1994 is way below the adopted ratio of 1:5,000. This indicates that health delivery at the PHC level is very weak in the City. Along with the fast growing population of the City, the health manpower needs should be addressed as a serious concern to improve the delivery of health services to the populace.

Table 19 Number of City's Medical Manpower (Plantilla and PHDP personnel) and Ratio to Population, 1994

Category	Number	Ratio to Population	Ideal Ratio	Additional Needed
Physician	24	1:40,482	1:20,000	26
Nurse	38	1:25,568	1:10,000	62
Midwife	38	1:14,288	1:5,000	162
RSI	19	1:51,135	1:20,000	31
Dentist	7	1:138,796	1:20,000	43
Med. Tech.	10	1:97,157	1:20,000	40

Source: City Health Office, Davao City

3.2.3. Disease control programs

(1) Expanded Program on Immunization (EPI)

The EPI is a part of the Comprehensive Maternal and Child Health Program of the City. EPI components are vaccine distribution, vaccination rounds, public health education, and social mobilization.

Immunization is given to children under one year as prevention against seven diseases and to pregnant mothers against tetanus. The immunization coverage has been increasing over the years. The percentage of fully immunized children in 1990 was 43% which increased to 93% in 1997. The percentage of fully immunized mothers with TT2 was 43% in 1990 which increased to 67% in 1997.

Although OPV3 coverage showed 90% in 1997, there are five cases of acute flaccid paralysis (AFP) were reported, but none of them were confirmed polio cases.

(2) Tuberculosis (TB) control

TB is the 4th leading cause of mortality of all ages in 1996 and the 5th in 1997. As a communicable disease, however, TB is still the number one problem since non-communicable diseases are now in the top three of the leading causes. TB still remains one of the most serious and challenging health problems in the City. The TB control program in Davao City is a vertical program which is also integrated into the community health structure.

The TB program has a very low coverage in case-finding through sputum microscopy. In 1997, the program accomplishment as a percentage of target for TB symptomatic with sputum examination was only 70% with 39.1% identified as sputum positive and a positivity rate of 5%.

Early detection and treatment of infectious TB cases are the principal methods of the National TB Control Program (NTP). Ensuring, therefore, higher coverage and quality sputum examination becomes an important activity in TB control. The challenge to the City TB control program is to strengthen case findings, train microscopists on sputum emanation, and strengthen drug management.

3.3. Health Situation of Davao del Norte

Republic Act Nos. 8471 and 8472 created two component cities in Davao del Norte Province. These two cities are Tagum City and Island Garden City of Samal the latter being composed of three districts: Babak (I), Samal (II), and Kaputian (III). Aside from these two cities, the Province is composed of eight other municipalities including the newly created Braulio E. Dujali as enacted by R.A. No. 8473.

3.3.1. Eight municipalities

(1) Vital statistics

The total population of Davao del Norte is 460,043 (excluding the two newly created cities) based on the Provincial Health Office report for 1997. The most populated municipality is Panabo (including the newly created municipality of Braulio E. Dujali) followed by Sto. Tomas.

The crude birth rate (CBR) in the province was 15.97 per 1,000 population in 1997. This is slightly higher than the 1996 CBR of 14.78. Carmen and Talaingod had the highest (19.36) and the lowest (12.67) CBR, respectively. The crude death rate

(CDR) of 1.8 per 1,000 population is lower than the 1996 figure of 1.91 in the whole province. Panabo and Asuncion had the highest (2.77) and the lowest (1.19) CDR, respectively.

The infant mortality rate (IMR) was 9.75 per 1,000 live births in 1997, higher than the 5.98 per 1,000 live births in 1996. The IMR range is from 4.16 in Asuncion to 25.07 in Panabo in 1997. Talaingod had the second highest IMR at 15.31. From 1995 to 1997 there was only one incidence of maternal death per year in the whole province. Two cases were reported in Panabo and one in New Corella.

(2) Common causes of morbidity and mortality

The leading causes of morbidity are bronchitis, diarrhea, pneumonia, influenza and malaria for the past five years. For the mortalities, accidents, pulmonary tuberculosis, cardio-vascular diseases, pneumonia and malignant neoplasms are the main causes in the past five years. Maternal deaths are mainly due to post-partum hemorrhage and heart disease. Pneumonia followed by hyaline membrane disease are the leading causes of infant deaths in 1996.

(3) Hospitals

Davao del Norte has 23 private hospitals and only one government hospital in Kapitalong. Of the private hospitals, 11 are in Panabo and four in Sto. Tomas. All the private hospitals are primary hospitals except for three hospitals in Panabo which are secondary. Talaingod is the only municipality without a hospital.

Kapalong District Hospital (KDH)

The only district hospital in Davao del Norte in Kapitalong has 25 beds housed in a one storey old building. It has an occupancy rate of more than 100 percent in 1997. Close to half (43%) of the patients were admitted in the medicine ward and 32% in the surgery ward. Most surgical admissions (80%) were minor operations. Among all the district hospitals in the old Davao Province, KDH had almost a half (49%) of all the medico-legal cases in 1997.

(4) Rural Health Units

In the health consultation workshops in February 1998, the participants mentioned several problems related to the health centers. There is no rural health unit building in Talaingod and some rural health units and barangay health stations do not have water supply. Basic medical equipment are also inadequate. Drugs are not sufficient in the rural health units. Likewise, medical outreaches that can supplement services for the indigenous communities are lacking.

Implementation of environmental health programs is poor. Level III water supply system are available for only 20% of the total households in 1997. It is non-existent in Talaingod and moreover 84% of the water source in this municipality is doubtful. For the whole province, sanitary toilets are found in 69% of the households. Only a little more than half (56.6%) of all the households have complete basic sanitation facilities. In Talaingod only 70 (3.4%) out of the 2,056 households have complete basic sanitation facilities.

(5) Health situation of the Municipality of Talaingod

Talaingod is a sixth class municipality 45 km northwest of Tagum City. It has three barangays with a predominantly indigenous people population. Some health indices

in 1997 indicated that Talaingod's were relatively poor compared with all the other municipalities of Davao del Norte. More than one third of newborns (70 infants) weighed less than 2,500 gm. Only 43.6% of pregnant women had complete tetanus toxoid immunization. Fully immunized child accomplishment is also low at 63%. According to the municipal health officer, common illnesses are tuberculosis, pneumonia, acute bronchitis, acute gastroenteritis, malnutrition, skin diseases, anemia, accidents, malaria and cardio-vascular diseases.

Out of the 10 staff of the RHU, only five are regular employees. The municipal government provides salary only to the MHO, one nurse, one midwife, one medical clerk, and drivers of motorcycle and ambulance. The malaria coordinator and one midwife are supported by the National Government while the sanitary inspector is getting his salary from the PHO.

Among the municipalities in Davao del Norte, Talaingod had the highest percentage of severely and moderately underweight 0 to 83 months old children. Unfortunately, not one of the 228 moderate and severely malnourished children identified was rehabilitated. Less than 105 of the pregnant and post partum mothers were given iron supplements. No woman was given iodized oil capsule.

The presence of a malaria coordinator from the DOH contributed to better accomplishment of the malaria control program in the area. Treatment was provided to 88.3% of the cases. All of the targeted streams were cleared and seeded with mosquito larvicidal-eating fish.

No cases of non-communicable diseases such as malignant neoplasms, rheumatic fever/heart disease were reported in the municipality in 1997.

3.3.2. Island Garden City of Samal

(1) Vital statistics

The total population of 79,881 in 1997 was almost evenly distributed among the three districts of the City. Babak has the largest population while Samal is the least populated. On an average, the IMR is decreasing in the whole city for the past three years. Low birth weights are predominant in Kaputian (40.6%) compared to 5.6% in Samal.

(2) Common causes of morbidity and mortality

The leading causes of morbidity are influenza, pneumonia, bronchitis, diarrhea, measles and hepatitis in the three districts in 1997. Of all measles cases, 72% came from Samal. Babak had 121 cases of hepatitis. Malaria is endemic only in Kaputian district.

The common causes of mortality in 1997 are cardio-vascular diseases, pneumonia, cancer, pulmonary tuberculosis and accidents.

(3) Samal District Hospital (SDH)

The SDH is the only hospital in the city with 25 beds housed in a two-storey old building and one floor annex. It has an occupancy rate of 84.6% in 1996. The SDH has been accredited as a mother and baby-friendly hospital since 1994.

Of all the discharges in 1996, 38% were from the medicine ward followed by pediatrics and gynecology departments. The medicine and pediatrics departments

also had the bulk of the out-patients. The SDH also caters to the needs of IPs who usually appear with diarrhea and typhoid fever.

The staff of the hospital perceives the following problems: very slow procurement of drugs and supplies, non-completion of the construction of other phases of the hospital building, unavailability of anti-TB drugs for several months and non-functional X-ray machine due to lack of developing solution and non-functioning autoclave machine. One big difference in the operation of the SDH before and after the devolution is in the way the funds generated from the sales of drugs are used; at present, all the revenue is brought back to the provincial government unlike before when the SDH could keep the fund and replenish the drugs.

(4) Health of children

Of all the infants delivered in Kaputian in 1997, 41% had birth weights of less than 2500 gm. The same area had the highest proportion of severely and moderately underweight children. Only one severely underweight child was rehabilitated, while 79 moderately underweight children were rehabilitated.

Samal had the lowest proportion of children who were fully immunized. This probably explains the high incidence of measles cases in the area.

(5) Environmental health

This city is being promoted as one of the major tourist attractions of the DIDP Area. In 1997, the city had 25% (379) of the total food establishments in the whole of Davao Province. In Kaputian alone there are 336 food establishments. However, only 93% of these have sanitary permits. Moreover, Kaputian has the least proportion (25%) of households with satisfactory garbage disposal among the three districts. No water analysis was done in the three districts in 1997.

3.3.3. Tagum City

(1) Vital statistics

Tagum City is composed of 23 barangays with a total projected population of 169,316 in 1998 (City Health Office I, Tagum City). The infant mortality rate doubled from 11.5 in 1995 to 24.69 in 1997 per 1,000 live births. There was no maternal death reported in the city for the past three years.

(2) Common causes of mortality and morbidity

Common causes of mortality in 1997 based on the municipal (city) health center were pneumonia, accidents, pulmonary tuberculosis, cancer and septicemia. Morbidity was caused mainly by bronchitis, pneumonia, PTB, dengue and heart diseases.

Apokon is the fifth most populated barangay in 1995 among the 22 barangays of Tagum. There are 29 gold processing plants and 280 ball mills operating in the area. Eleven of the plants were constructed adjacent to the Apokon Elementary School since 1986. The pupils, faculty and residents in the vicinity usually complain of too much noise and air pollution caused by these plants. The obnoxious and suffocating fumes allegedly cause headaches and gastro-intestinal pains to children.

An NGO based in Tagum claims that the elementary children are observed to be easily fatigued and generally pale. In 1996, a medical team from the University of

the Philippines – Philippine General Hospital Poison Control Center examined 114 children. They found out that 24 (21%) and 20 children have very high levels of mercury and cyanide in their blood, respectively. Nobody knows how many more children may have been poisoned by mercury and cyanide.

Obviously the gold refining or processing plants do not have safe storage, usage, handling and disposal system of mercury and cyanide. Many of the plants are located beside the Hijo river. The mine wastes directly pose great dangers to children. The tailing pond is their playing field. More than a half of the school children examined reside within 500 m of a gold processing or a refinery plant.

(3) Public health services for children

Only 4% of the newborns had a birth weight of less than 2500 gm. As for immunization programs, only 45.5% of pregnant women were fully immunized and only 73% of one year old children were fully immunized in 1997. Of 96 children identified as severely underweight, only 38% were rehabilitated. For the moderately underweight, only 15.6% were rehabilitated.

(4) Hospitals

There are seven hospitals in this city. The only public hospital is the Davao Regional Hospital which is a 200 bed tertiary care health institution. Among the six private hospitals, three are primary, two secondary and one is a tertiary hospital.

Almost one-third of the in-patients in the Davao Regional Hospital (DRH) are from Tagum City. The most common cause of mortality is pneumonia, followed by sepsis, pulmonary tuberculosis, cardio-vascular hemorrhage and sepsis neonatorum. For the discharges and consultations, peri-uterine full term deliveries and pre-natal check-up are the topmost causes, respectively. Despite that the DRH is a tertiary hospital, almost 40% of its discharges are normal deliveries. The hospital can be decongested by strengthening the obstetrical facilities in secondary or primary health institutions.

3.4. Health Situation of Davao Oriental

3.4.1. Health and sanitation conditions

(1) Vital statistics

The figures from DOH-RFO No. XI show that the population increased from 1991 to 1995, but in 1996 it went down by 1.2% from 425,201 to 419,809. Out-migration is perhaps the reason for the decrease in population for the last two years. The crude birth rate (CBR) and the crude death rate (CDR) did not change much in the past five years.

The infant mortality rate (IMR) had rapidly improved from 1991 to 1995, particularly between 1993 and 1995 when the IMR significantly dropped by 68%. The Provincial Health Office (PHO) records of the 11 municipalities show a wide discrepancy in the IMR from 1 to 60 per 1,000 live births. This is a manifestation of the big gap in the provision of health services in the province. The main cause of infant deaths is pneumonia for the last five years. The health services in the municipalities of Boston and Cateel have to be improved in order to decrease significantly the IMR. The high IMR of Mati can be attributed to the unavailability of midwives in some of its remote barangays.

(2) Common causes of morbidity and mortality

The leading causes of morbidity in the past five years have been respiratory infectious diseases and diarrhea. For the same period, deaths were mainly due to pneumonia, cardiovascular diseases and tuberculosis. In 1996, all forms of accidents went up to fourth position of leading causes of mortality from the sixth in 1991 to 1995. All the 290 deaths in 1996 in the municipalities of Manay, Tarragona, Banaybanay and San Isidro were not attended by a medical personnel. Only Baganga and Gov. Generoso had 100 percent medical attendance for all their deaths in 1996.

3.4.2. Health system and facilities

(1) Public hospitals

All of these government hospitals have a combined bed capacity of 200. All the hospitals are supervised by the Provincial Health Office (PHO), except for the newest primary hospital that was opened in January 1997 in Baganga which is being managed by the municipal health office (MHO).

Table 21 shows that more than a half of the total hospital discharges and out-patient consultations in 1996 were from the Provincial Hospital. Among the district hospitals, the Lupon District Hospital (LDH) had the most number of discharges and consultations. While the Gov. Generoso Municipal Hospital (GGMH) is only a primary hospital, its number of discharges and consultations exceeded that of other district hospitals.

Radiological services are available in the Provincial, Manay and Lupon District Hospitals (LDH). Electrocardiography and ultrasonography services are provided in the Provincial Hospital. Only the routine laboratory procedures of CBC, urinalysis and fecalysis are conducted in all district and municipal hospitals. The Cateel District Hospital had the least number of laboratory procedures conducted as shown in Table 21.

In all of the hospitals, acute gastroenteritis was the leading cause of hospital discharges in 1996 as shown in Table 20. Among the district hospitals, the LDH has the best maintained obstetrical facilities and thus peri-uterine full term (PUFT) deliveries is one of its topmost causes of final discharges.

a. Provincial Hospital

The three storey newly built Davao Oriental Provincial Hospital adjacent to the old is administratively integrated with the Provincial Health Office. The facilities are adequate to serve as a referral hospital for Davao Oriental except for the dental department. In 1996, the majority of the patients sought primary consultations. Only 20% of the patients were referrals from rural health centers, other hospitals and health facilities.

The X-ray machine, intensive care unit equipment, incubator, patient's beds, generator and ambulance were donated by JICA in 1991. However, supplementary training is needed to operate other sophisticated equipment. The Philippine Charity Sweepstakes Office (PCSO) donated two hemodialysis units in 1997.

The hospital is mainly serving charity patients; only 14% of the patients were admitted in the Medicare ward and there were no private patients in 1996. Of all

the admissions, 37% and 31% were non-surgical adult and pediatric patients, respectively. The obstetrics and gynecology department shares 19% of the patients. The remaining 13% of the patients were admitted in the surgery ward.

The problems perceived by the hospital leaders are: insufficient manpower particularly nurses; inadequate training for operation and maintenance of hospital equipment; most patients go directly to the hospital even for primary care; and the fluctuation in the electric current is affecting the operations of the equipment.

Table 20 Five Causes of Hospital Discharges in Davao Oriental in 1996

Causes	Provincial		Lupon Dist.		Manay Dist.		Cateel Dist.		Gov. Generoso Mun.	
	#	%	#	%	#	%	#	%	#	%
1. Acute Gastroenteritis	856	13	287	16	149	19	277	25	231	10
2. Pneumonia	711	11	141	4	0	0	145	13	244	10
3. Urinary Tract Infections	264	4	71	4	0	0	84	8	107	5
4. Injuries	359	5	0	0	86	11	65	6	53	2
5. Others										
a. C.V. Diseases	0	0	0	0	47	6	0	0	0	0
b. PUFT Deliveries	0	0	299	16	0	0	0	0	0	0
c. GI Disorders	0	0	0	0	55	7	0	0	0	0
d. Measles	0	0	0	0	0	0	153	14	0	0
e. Parasitism	0	0	0	0	0	0	0	0	56	2
f. Malaria	0	0	0	0	54	7	0	0	0	0

Source: 1996 Hospital Annual Reports

Table 21 Number of Hospital Discharges, Out-Patient Consultations and Laboratory Examinations in Davao Oriental in 1996

Hospital	No. of Hospital Discharges		Out-Patient Consultations		Laboratory Examinations	
	#	%	#	%	#	%
1. Provincial	6,605	56.6	23,577	61.9	64,888	81.8
2. LDH	1,820	15.6	6,721	17.6	5,894	7.5
3. MDH	804	6.9	2,943	7.7	1,748	2.2
4. CDH	1,113	9.5	2,020	5.4	1,607	2.0
5. GGMH	1,325	11.4	2,833	7.4	5,172	6.5
TOTAL	11,667	100	38,094	100	79,309	100

Source: 1996 Hospital Annual Reports

b. Lupon District Hospital (LDH)

The LDH with a one-storey building is the only hospital in Davao Oriental that has screened windows and doors. The equipment and instruments are properly maintained -- there is even an anesthesia machine. Two years ago, the LDH was accredited as a Mother and Baby Friendly Hospital. The LDH received from PCSO and UNICEF/AUSAID one ambulance, family planning table and two air conditioners, as donations.

A significant number of patients of the LDH in 1996 were non-charity patients: 39% were admitted in the pay ward; 6% were admitted in the Medicare ward and about 75% of the patients pay for their drugs. The LDH's policy regarding indigents is strictly being implemented. Community involvement is solicited during the

weekly cleaning of surroundings, and health classes for in- and out-patients are held twice a week.

Of all patients, 42% of the patients were admitted in the medical ward in 1996, 29% in obstetrics and gynecology wards, and 24% in the pediatric ward. In Lupon district, malaria cases were seen mainly in three barangays: Maragatas, Lagdingan in Lupon and Maputi in San Isidro. Six rabies cases were seen at LDH during the past year.

The three leading causes of deaths in the hospital are acute gastroenteritis with severe dehydration (22%), followed by cerebro-vascular accidents secondary to hypertension (16%) and pneumonia (14%).

The problems perceived by the hospital staff are: difficulty in maintaining the cleanliness in the hospital; difficulty in purchasing drugs; no anesthesiologist; insufficient reagents for other neurological laboratory procedures; and lack of continuing education opportunities for the staff.

c. Manay District Hospital (MDH)

This is a 10-bed district hospital that is located in Bato, Manay. The only functional equipment in the hospital are the autoclave, microscope and X-ray machine, which became functional five years after its purchase.

In 1996, 47% and 27% of the patients were admitted in the medicine and pediatric ward, respectively. Only 6% were admitted in the obstetric ward. For the past year, the MDH has been conducting bilateral tubal ligation every quarter. The most common out-patient consultations were vehicular accidents followed by respiratory infections. The three leading causes of death at MDH are cerebro-vascular accident secondary to hypertension (24%), severe bronchopneumonia (19%), and diseases of the heart (14%).

For 1996, the MDH had a deficit of ₱164,109 for their operational budget. The total income for the year was ₱106,448 which was generated from the payment of the patients for drugs, laboratory procedures and room for those who were admitted in the pay ward.

The problems at MDH are: the autoclave, X-ray machine and the microscope are non-functional; the hospital is understaffed; and procurement of supplies is slow.

d. Cateel District Hospital (CDH)

CDH is a 15-bed district hospital in the northeastern side of Davao Oriental. In 1996, it had the lowest occupancy rate (49.6%) among government hospitals in the province.

In 1996, 48% and 47% of all patients admitted were in the medicine and pediatrics wards, respectively. Only 3% of the patients were admitted in the gynecology department. Majority of the patients (92%) were paying patients and the rest were admitted in the service ward.

In 1996, 17 cases of paragonomiasis were seen at CDH. This disease was first suspected early that year when some of the tuberculosis patient did not improve after completing the treatment course. Further studies conducted in Davao City confirmed the diagnosis of paragonomiasis which has similar signs and symptoms

to that of tuberculosis. This disease is common in about six-to-seven upstream barangays in Cateel.

The hospital does not have a pharmacist and there is no X-ray machine.

e. Governor Generoso Municipal Hospital (GGMH)

This is a 10-bed primary hospital with a 108% occupancy rate in 1996. It has a well maintained and orderly laboratory facility. However, the X-ray machine is not working and the medical records are not properly kept because of lack of filing cabinets.

Pediatric cases predominated in the out-patient consultations and admissions in 1996. This was followed by internal medicine cases, deliveries in the in-patient department and surgical cases in the out-patient department. More than a half of the patients were paying patients (60%), 30% were service patients and the rest were admitted in the medicare ward.

In spite of the total income of ₱107,806 in 1996, the GGMH had a deficit of ₱680,067 in their operational budget. Their average cost of subsistence per patient per day is ₱17.94.

f. Baganga PHC Clinic

The cholera outbreak in Baganga last April to June 1996 paved the way for the establishment of this 15-bed primary hospital that was initiated by the municipal government and started in January 2, 1997. A calamity fund coming from the Central Government is used for operational expenses. Public funds through the congresswoman of the district provided the building. The municipal government provides the personnel responsible for the operations of the hospital.

The hospital has two nurses, four midwives, two attendants, one driver and five utility staff. The medical doctor is the municipal health officer of Baganga. The hospital has the following equipment: suction machine, 10 wooden and five steel beds, two blood pressure apparatus, nebulizer, delivery table, crib and weighing scale.

In August of 1997 the hospital started to monitor diarrhea cases in the area, and the results show that the month of October had the most number of cases (95) followed by September (45). Out of the 18 barangays in Baganga, Barangay Lucod has the most number of diarrheal cases since August followed by Kinablangan.

The main problem of the hospital is how to sustain its operations after the ₱2 million calamity fund will have been depleted. At present this fund is used for the salaries of most of the staff, drugs, supplies and purchase of equipment.

(2) Rural Health Units (RHU)

As of 1996, all the municipalities, except Boston, had a rural health physician. Likewise, all the 18 municipalities had dentists, public health nurses, midwives, sanitary inspectors and barangay health workers. However, only seven health centers had medical technologists. Out of the 183 barangays in Davao Oriental, only 152 barangays have a barangay health station.

The JICA Study Team visited the rural health centers in Tarragona, Baganga and Boston and a few barangay health stations in Mati. The result of the findings are in the subsequent discussions.

a. RHU of Tarragona

Tarragona is the next town from Mati in the eastern side. It has 10 barangays that are interconnected with logging roads. The two farthest barangays are Limot and Tubaon which are 42 km and 20 km away from the Poblacion, respectively. Two of the barangays have predominantly Muslim residents and one-half of the barangays are depressed areas, according to the rural health physician.

There are 20,316 people in the ten barangays in Tarragona, with Tubaon having the most number (3,780) followed by the poblacion with (2,814). The CBR and IMR were 47 and 2 per 1,000 live births in 1995. The CDR was 20/1,000 population. The common causes for morbidity were respiratory infections, malaria and diarrhea. Of all the deliveries, 67% were attended by the midwives and trained traditional birth attendants.

In the whole municipality, 21% of the households do not have any toilet and 6% do not have sanitary toilets. Among the different barangays, there are five areas – Dadong, Maganda, Limot, Tubaon and Ompao where more than a quarter of the households do not have a toilet. Water supply is a problem in four barangays: Poblacion, Jovellar, Lipot and Ompao. Barangay Tubaon was a beneficiary of the PCHD Spring Development Project.

The RHU has two vehicles, one ambulance and one pick-up. Their budget for 1996 was ₱1.2 million and of this, ₱250,000 was allocated for drugs. The municipal government is giving ₱50 per month to each of the 76 barangay health workers.

The perceived problems of the RHU are: the benefits of the staff are not provided and there are no drugs for the past six months.

b. RHU of Baganga

The 18 barangays in Baganga have 89% fully immunized children (FIC). Some barangays have 56%, 66% and 67% FICs because the midwife was not able to continue her work due to retirement or some illnesses. The RHU staff are assisted by 212 barangay health workers in delivering health services.

Inadequate salaries of the staff, and insufficient drug supply are among MHO's main problems.

c. RHU of Boston

There are eight barangays in the area with an actual population of 8,000 in 1997. There is neither a private medical doctor nor commercial drugstore in the area. There is only a drugstore cooperative in the poblacion.

The RHU has sufficient and permanent dentist, nurses, midwives, medical technologist and sanitary inspector except a medical doctor. Based on PHO data, Boston has the highest IMR in the province. There is also no nutritionist in this municipality just like Cateel. Thus, the nutritional indices are poor. Many children are severely underweight and supplementary feeding recipients are few.

The major problems of the RHU are: insufficient supplies in the EPI, nutrition and essential drug programs. Also laboratory facilities are lacking in this municipality.

(3) Barangay Health Stations (BHS) in Mati

Among the five barangays visited, only barangay Dahican did not mention medical drugs as their problem. It has the highest barangay budget among all barangays. Lack of potable water is the next most common identified problem.

Allocation of the budget for drugs differs in every barangay, from 1.1% in barangay Bubon to 5.6% in Dahican. Only barangay Tamisan is giving financial support to their barangay health workers.

Table 22 Comparison of Health Problems and Resources in Five Barangays of Mati, Davao Oriental

Barangay	Pop'n.	Brgy. Budget (P)	Budget for Drugs (P)	Health Problems	Unmet MBN	# of BHWs	Activities of BHWs
Lawigan	2,000	391,000	5,000	cold, fever, 13 puroks along the coast	water supply	16	duties in the BHS
Dahican	5,000	543,000	30,000	fever, diarrhea, cold	water supply	20	
Tamisan	3,000	367,000	10,000	drugs, water	employment; drugs	11 P 75/mo.	
Bubon *Don E.	4,800	445,000	5,000	system drugs,	N.A.	20	HH survey
Lopez Sr.	2,653	261,628	12,000	malaria	N.A.	17	EPI

* A waters' consumers association is established in this barangay in 1993 with 162 members at present

3.5. Health Situation of Compostela Valley

Republic Act No.8470 creating the Province of Compostela Valley out of Davao Province was approved in March 1998. The predominantly upland 11 municipalities of former Davao Province compose the new province of Compostela Valley. The health situation in this new province is different from the other provinces of the DIDP Area, because of its topography, accessibility of health facilities and the absence of a hospital that can provide adequate tertiary health care to the residents.

3.5.1. Health and sanitation conditions

(1) Vital statistics

In 1997, the total population of the municipalities in Compostela Valley was 543,240 based on the Provincial Health Office report. This is 2.2% higher than the population of the same municipalities in 1996. The two municipalities with the most number of people are Monkayo and Pantukan. Mawab has the smallest population of 30,599.

The crude birth rate (CBR) in the province was 20.74 per 1,000 population in 1997. Mawab and Maragusan had the highest (26.60) and lowest (15.68) CBR, respectively. The crude death rate (CDR) was 1.43 per 1,000 population in the whole province. Compostela and Monkayo has the highest (3.67) and lowest (0.23) CDR, respectively.

For the past three years since 1995, the infant mortality rate (IMR) had been increasing in these 11 municipalities, from 4.92 per 1,000 live births in 1995 to 9.64

per 1,000 live births in 1997. The three municipalities with the highest IMR for the past three years are Maragusan, Compostela and Nabunturan.

(2) Common causes of morbidity and mortality

The leading causes of morbidity in Davao Province including the 11 municipalities of Compostela Valley Province are bronchitis, diarrhea, influenza, pneumonia and schistosomiasis for the past five years. In Montevista, the top leading causes of morbidity for the past five years are: upper respiratory infection, malaria, gastroenteritis bronchitis and pneumonia. In Nabunturan, it was observed by the municipal health officer that there is prevalence of gastro-intestinal and skin disorders in commercial banana plantation communities.

Pneumonia, vascular diseases, accidents, pulmonary tuberculosis and malignant neoplasms are the main causes of mortality based on the five year averages (1992 – 1996). However, in 1997 accidents became the number one cause of mortality taking over the infectious and vascular diseases. Infant mortality, on the other hand, is mainly due to pneumonia followed by hyaline membrane disease. The leading causes of mortality are practically the same in all the other municipalities of the former Davao Province.

For the maternal deaths, seven out of 10 from 1995 to 1997 came from the municipalities of Nabunturan with three deaths and Laak, Pantukan, Monkayo and New Bataan with one each. These deaths were due mainly to post-partum hemorrhages.

In Montevista the leading causes of mortality for the past five years are accidents, pneumonia, all forms of tuberculosis, vascular diseases and septicemia in descending order.

(3) Health of children

The increasing IMR in the Province for the past three needs to be addressed immediately. Maco is the only municipality with relatively good health indices for children in 1997. The municipalities of Compostela and Laak have the poorest health indices for children.

Maragusan and Compostela have high IMR and high proportion of births not attended by trained personnel. Of the total live births in the province, 10% had a birth weight of less than 2,500 gm. Mabini and Monkayo have the highest percentages of low birth weight infants, 29.5% and 27.4%, respectively.

For nutrition indices, Laak has high proportions of moderately and severely underweight children. However, no food supplement was provided to its 820 moderately and 60 severely underweight children. In Pantukan, although they have the highest (11.61%) proportion of moderately and severely underweight among the 0 - 8 months old children actually weighed, the local government was able to rehabilitate all needy children. Other municipalities that were not able to provide food supplement for their severely and moderately underweight children were Compostela, Montevista and Mawab.

Fully immunized children (FIC) index was lowest in New Bataan followed by Laak in 1997. For the administration of two doses of tetanus toxoid, Compostela and Montevista had the lowest percentage of pregnant mothers who completed tetanus toxoid immunization.

Table 23 Infant Mortality Rate per 1,000 Live Births in the Province of Compostela Valley 1995-1997

MUNICIPALITY	1995 RATE	1996 RATE	1997 RATE
1. MAWAB	1.26	1.38	4.91
2. COMPOSTELA	9.13	11.22	15.48
3. MONKAYO	0	1.67	6.67
4. MONTEVISTA	9.49	2.79	8.15
5. NABUNTURAN	0.92	10.24	17.54
6. NEW BATAAN	2.21	9.03	10.73
7. MARAGUSAN	15.02	9.16	14.06
8. LAAK	3.65	5.9	3.56
9. MABINI	3.11	1.87	11.13
10. MACO	7.07	1.77	7.69
11. PANTUKAN	2.29	0.85	6.15
TOTAL	4.92	5.08	9.64

Source: PHO, Davao Province

Table 24 Comparison of Different Indicators to Determine the Health of the Children in the Municipalities of Compostela Province, 1997

Municipality	Score*	IMR	BW less than 2500g	Births w/o trained personnel	Mod. Underweight	Sev. Underweight	Food supplement for sev. underweight	Food supplement for mod. underweight	Low FIC	Low TT
Compostela	13	xx	few	xx	few	few	xxx	xxx	mod. high	xxx
Laak	11	low	few	few	xx	x	xxx	xxx	xx	high
Maragusan	9	x	few	xxx	x	few	xxx	ok	high	x
Montevista	8	low	few	none	few	few	xxx	xxx	high	xx
Pantukan	7	low	x	few	xxx	xxx	ok	ok	high	high
Mabini	6	mod. high	xxx	none	few	very few	xxx	ok	high	high
Mawab	6	low	few	few	few	very few	xxx	xxx	high	high
Monkayo	4	low	xx	few	few	xx	ok	ok	high	high
Nabunturan	4	xxx	no so few	few	very few	very few	ok	ok	x	high
New Bataan	4	mod. high	few	xxx	few	not so few	ok	ok	xxx	high
Maco	0	low	few	very few	few	few	ok	ok	high	high

xxx – poorest situation

* Total number of Xs a municipality has; the more the number x the poorer the health situation.

Source: JICA Study Team Based on the data from PHO, Davao Province

3.5.2. Health system and facilities

(1) Hospitals

In Compostela Valley, there are only 20 hospitals; 16 are private and only four are government hospitals. There is no tertiary hospital in the province. There are two secondary district hospitals in Montevista and Pantukan and two primary municipal hospitals in Maragusan and Laak. Government hospitals are not sufficient to provide quality curative care to the people.

Among the government hospitals, the Montevista District Hospital (MDH) has the highest occupancy rate. Of the total government hospital admissions, 55% were in MDH in 1997. The Pantukan District Hospital (PDH) has the most number of transferred patients (84%) in the same year. Medical and pediatric patients constitute 78% of the total hospital admissions. Surgical admissions was only 5% due to inadequate equipment and insufficient anesthesiologists. The municipal hospitals do not have X-ray equipment.

For the laboratory examinations, majority of the complete blood count and urinalysis were conducted in the PDH. Malaria smear was performed mainly in the Laak Municipal Hospital (LMH) and the MDH. For fecalysis and sputum examination, most of the procedures were done in the Maragusan Municipal Hospital (MMH).

All of the private hospitals are primary. Compostela and Nabunturan have five and three hospitals, respectively. The other five municipalities have one or two hospitals each.

a. Montevista District Hospital (MDH)

The MDH started in 1982 along the national highway of Montevista. The 25 beds of the MDH seem to be insufficient as manifested by an occupancy rate of 105 percent in 1996. The patients being served are coming from four other nearby municipalities of Monkayo, New Bataan, Compostela and Nabunturan. In 1996, they had 19 medical staff: four doctors, one dentist, five nurses, six midwives, one pharmacist, and two medical technologists.

The outpatient and emergency building has been condemned for several years because of its termite-infested wooden columns. Its temporary obstetrical ward and delivery room is not conducive for mothers because they are congested and ill-designed. The MDH was suspended as a Medicare-accredited hospital because of its obsolete laboratory equipment.

The hospital obtained its new X-ray machine last February 1997, and 10 to 15 patients are served per day and the charge is ₱100 for chest X-ray. The MDH has two autoclaves but the bigger one has never been functional since the start of the operations of the hospital. Of its patients, 37% were admitted in the payward. Medical and pediatrics cases had the highest admissions and out-patient consultations in 1996.

The perceived problems of the MDH staff are: safety of the outpatient and emergency room's building, inadequacy of supplies, e.g. intravenous fluids, non-functional equipment and insufficient staff.

b. Pantukan District Hospital (PDH)

The PDH is in a one-storey building along the national highway. It is supposed to have 25 beds but only 20 beds are utilized. Its occupancy rate was 81%, which was second lowest among the government hospitals in the province in 1996.

Its laboratory facility is in a small room but it is working efficiently. The hospital has the basic equipment but they are quite old and preventive maintenance is nil. Of the patients, 64% were admitted in the payward and only 30% were charity patients. Pediatrics and medical patients shared the bulk of the patients both in the admissions and outpatient department.

The perceived problems of the hospital are the incomplete construction of the hospital, and the inadequate number of staff particularly nurses.

(2) Rural Health Units

All 11 municipalities have a health center each. The two most populated areas, Monkayo and Pantukan, have the highest health center to population ratio.

Considering the inadequacy of government hospitals in the province some health centers can be expanded to include lying-in clinic facilities.

Facilities and equipment in the rural health units are not sufficient particularly for laboratory, minor surgery room and dental clinics. Most local government units can not allocate budget for the medical equipment because the majority of their health budget goes to salary of the staff.

Inadequate supply of drugs is another common concern, even for tuberculosis supplied by the National Government. This problem inhibits some health personnel to go to remote communities to do medical consultation because people expect them to give free drugs every time they visit. Other supplies not sufficiently provided are vaccines for tuberculosis and hepatitis B, according to the participants of the health consultation seminar in Nabunturan in February 1998.

Another major problem identified is the manpower at health centers. Most RHUs and barangay health stations are understaffed. Upgrading the skills and capabilities of the health staff is inadequate. Monitoring of activities in the field is also limited because of mobility constraints of the RHU staff.

3.5.3. Environmental health concerns

The gold mining deposits in Compostela Valley Province are located mainly in Mt. Diwata (Diwalwal) in Monkayo, Compostela and New Bataan. Diwalwal had the largest operations in the early 1980s. Dumping of tailings and discharge of used water together with the absence of appropriate housing and sanitary facilities led to unsanitary and unhealthy environment.

In a study that started in 1995, the Mines and Geosciences Bureau (MGB) of the Department of Environment and Natural Resources (DENR) and the British Geological Survey (BGS) found out that mercury (mostly inorganic) contamination of the river system is localized about 10 km from the Diwalwal mining and gold processing area. However, there is a persistence of relatively high mercury levels in the stream sediments which could be a long-term source of contamination. Mt. Diwalwal is drained by several creeks which flow into the Naboc river and the Mamunga river on to the lower portion.

Diwalwal is a community of at least 18,000 miners, their families and traders. Sanitation facilities are very limited and water in the river has turned gray signifying high turbidity. Preventive measures against mercury poisoning for the miners and their families are lacking in the area. Surveillance of mercury contamination/ poisoning at the community level has to be installed to prevent any massive destructive effect of this environmental health problem.

It has been observed that farmers and their dependents in commercial banana plantations experience gastrointestinal and skin problems. Preventive measures are not fully exercised by these companies to protect the health of their workers.

Chapter 4 Constraints and Potentials

4.1. Existing Health Related Common Constraints/Problems

Existing problems related to health conditions, services and facilities in the DIDP Area have been identified through visits to health facilities, interviews with health personnel, and analysis of secondary and primary data. During the first field work period, the JICA Study Team in cooperation with the DIDP staff visited 20 out of 48 municipalities as well as districts of Davao City, collected data from eight health offices, fifteen tertiary, district and municipal hospitals, one primary health care clinic, six rural health and three barangay health stations.

The following summarize the major problems/ constraints identified:

- (1) There is a big gap seen between the health plans and the actual implementation of programs. This is mainly due to insufficient resources of LGUs. It seems that the Government's health plan does not consider the differences in the financial capabilities of LGUs at different levels. There is no integrated plan at the different levels of LGUs to maximize their health resources.
- (2) The multi-sectoral approach in planning and implementing health programs is not widely utilized yet. Some health facilities and medical equipment are not appropriate to specific situations in the community: e.g. very thick mattresses for hospital beds, spare parts of equipment not locally available, etc.
- (3) GO and NGO collaboration is still quite weak, particularly in Davao City. Health NGOs in the DIDP Area have expertise that are recognized worldwide but their linkages with LGUs seem to be very weak. Successful models of health programs initiated by NGOs are not institutionalized nor adopted fully by LGUs.
- (4) Most hospitals and laboratories in the provinces and health centers in the DIDP Area do not have adequate and well-maintained facilities, equipment and instruments. The hospital in Sarangani does not even have water.
- (5) Basic essential drugs are not adequate in health centers and hospitals. Some health centers did not have a single drug in several months, particularly in poor municipalities. The five pillars of the National Drug Policy are not effectively implemented at different levels of government and by the private sector.
- (6) Existing health facilities are located in accessible populous areas. The referral system is not adequately designed geographically for hard-to-reach areas. Examples are for Jose Abad Santos and Sarangani towns, where there is no emergency boat that can be used to save people's lives.
- (7) Many municipalities without any public hospitals and the 15 districts in Davao City need lying-in clinics to strengthen the referral system as well as in hard-to-reach areas and economically depressed urban areas.
- (8) Safe water, environmental sanitation and environmental health hazards constitute a major concern in several communities of the DIDP Area.
- (9) Utilization of health data by LGUs for planning and implementation is rarely practiced. Presentation of results of health data collection is not easily understood by non-health LGUs. Validation of data collected is hardly performed.

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- (10) Dental health services are barely existing in the public sector in the DIDP Area. Dentists are insufficient in the Area. The dental health program in elementary schools and other oral preventive health programs need to be strengthened.
 - (11) Among the communicable diseases, tuberculosis and pneumonia remain high as the leading cause of mortality in every provinces/cities. The TB control program and the Control of ARI program need to be enhanced.

4.2. Existing Health Related Area-Specific Constraints/Problems

(1) Davao del Sur

- 1) The Sarangani municipal hospital needs improvement in basic facilities such as water, electric power, patient's beds, and rooms and upgrading of basic equipment in order to provide proper medical services to the people in the islands. Also, the networking system between the Sarangani municipal hospital and referral hospitals needs to be strengthened.
- 2) The Davao del Sur Provincial Hospital needs to upgrade its facilities and equipment. Managerial skills such as hospital administration/management, drug management, health information management need to be strengthened.

(2) Davao City

- 1) Davao City, with its rapidly growing population, needs to establish more Urban Health Centers and lying-in clinics. Existing Urban Health Centers need to expand their physical facilities to catch up with the demand created by a rapid increase of population.
- 2) Networking between the Davao Medical Center and other hospitals should be encouraged. The networking will be in the form of exchange of information, dispatch of personnel, implementation of outreach programs, providing consultancy to remote hospitals through satellite connected audio-visual equipment and other innovative means.
- 3) Environmental sanitation in urban squatter areas need to be improved. It is important to ensure safe water supply by putting septic toilets and educating people on proper waste and garbage disposal as well as the importance of environmental sanitation.

(3) Davao del Norte

In general, the 11 municipalities and two cities of the province seem to have a satisfactory implementation of health programs, but there are communities whose emerging concerns need to be addressed and appropriate measures instituted. Talaingod as a sixth class municipality needs a lot of logistic support for the construction of the health center and provision of supplies for its public health programs. Kaputian district in the Island Garden City of Samal has to be supported with health programs that will address the problems brought about by urbanization as it is fast-becoming a major tourist destination. The mercury and cyanide poisoning in Barangay Apokon in Tagum City are likewise urgent concerns.

(4) Compostela Valley

- 1) The health situation, particularly among children, is a serious problem. The municipalities of Compostela and Maragusan have high IMRs and high proportions of births not attended by trained personnel. Laak has a high proportions of moderately and severely underweight children.
- 2) The newly created province does not have a tertiary hospital. Along with the problem of insufficient number of public hospitals, the government hospitals do not sufficiently provide quality curative care services to the people.
- 3) The gold mining activities are concentrated mainly in Mt. Diwata(Diwalwal) in Monkayo, Compostela and New Bataan. A study found out that mercury (mostly inorganic) contamination of the river system is localized to about 10 km radius of the Diwalwal mining and gold processing area. There is a persistence of relatively high mercury levels in the stream sediments which could be a long term source of contamination.

(5) Davao Oriental

The difficulty in reaching the east coast municipalities in the province contributes to the inefficient and ineffective implementation of health programs. Although socioeconomic factors and political interventions influence the poor accomplishment of the programs, much can be done if the people are empowered to initiate programs on their own. Mobility problem of the health personnel within a municipality due to lack of logistic support can naturally hamper the delivery of health services to the people.

The municipalities in the southwestern part of the province can provide models for implementing programs that encourage active people's participation in health activities. However, there is limited interaction among the health personnel of different municipalities.

4.3. Prospects for DIDP Health Development

The following present main prospects for, or directions to pursue in health development in the DIDP Area:

- 1) The health delivery system has been decentralized. LGUs can initiate innovative health programs that will best solve the health problems in their respective areas.
- 2) The Hospital Maintenance Service for Mindanao (HMS-M) established in 1993 and its proximity to the hospitals covered by the program hopefully will facilitate the proper maintenance of equipment once the HMS-M is adequately equipped with skilled manpower.
- 3) The Herbal Processing Plant of the DOH-RFOXI is a potential source of herbal drugs in tablet form that are effective and cheaper drugs for cough, fever, stomach pain and hyperglycemia.
- 4) NGOs and people's organizations (POs) such as the Barangay Health Workers Federation, are supplementing as well as complementing the activities of the Government both in urban and rural areas. Some of their programs are worth replicating by other LGUs to improve the health care delivery system in their respective areas.

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- 5) There exist innovative networking programs. Health resources in the Area are very limited so that it is very important to share such health resources among health institutions for the improvement of the efficiency and effectiveness of services. The surgical networking in the Davao Regional Hospital is a good example of networking and health resource sharing.

Chapter 5 Strategies

Eight consultative workshops were conducted in the DIDP Area to determine the health problems and formulate a strategic plan using the D-A-V-A-O concepts for the health sector. Two workshops were conducted in each of the four areas considering the differences in the health situation and attitudes of the health personnel in rural and urban communities.

There were about 140 provincial/city health staff, municipal/district health officers, public health nurses, midwives and leaders of the barangay health workers associations who attended the workshops. The peculiarity of the problems in the health sector prompted the participants in the workshops to add two more viable concepts in the D-A-V-A-O framework. These two are Growth and Organization unity.

5.1. Growth

The existing health policies, programs and facilities in the DIDP Area are in place to allow the health sector to provide services to the people. However, there seems to be a need to strengthen some of the programs and facilities to enhance equity in the delivery of health services and to hasten the attainment of Health in the Hands of the People by 2020. In line with the implementation of the DIDP Master Plan, the health sector should be concerned about the possible negative effects of development to the people's health. The social sector is expected to implement programs that are people-oriented to ensure the Growth of society.

(1) Strengthening health care delivery institutions

The big discrepancy between the standard requirements and the available facilities, equipment and supplies in the different health facilities e.g. hospitals, rural health units and barangay health stations should be addressed. One way is to encourage local investors to manufacture hospital and health center furniture using indigenous materials such as bamboo for hospital beds. Medical equipment can be locally assembled and health equipment technicians can be trained to ensure the proper maintenance of equipment.

The provision of basic medical instruments for the barangay health and nutrition workers and the traditional birth attendants is also necessary to strengthen the delivery of health services to the grassroots level. Dental facilities, equipment, instruments and supplies have to be considered seriously because preventive oral health activities have been hampered for a long time. Laboratory clinics should also be upgraded and simple equipment such as microscope and centrifuge can be provided to improve the disease control programs for tuberculosis, malaria and shistosomiasis.

For coastal municipalities, particularly Jose Abad Santos and Sarangani in Davao del Sur, Samal Island municipalities in Davao Province and Boston, Cateel, Baganga and Caraga in Davao Oriental, a floating emergency clinic or ambulance is necessary to facilitate the referral of patients.

Additional barangay health stations can be constructed in Davao Oriental to enhance the delivery of preventive and curative care to people in hard to reach areas.

In Davao City, construction of lying-in clinics in every strategic district, e.g. Malabo, Mintal, Marilog and Baguio is necessary to strengthen the referral system in hard to reach areas. In Malabo, the hospital building constructed several years ago should be provided with equipment and personnel to start its operations. Some health centers in the Poblacion proper need to be expanded to accommodate the growing number of patients.

(2) Strengthening provision of essential drugs to communities

The implementation of the National Drug Policy program should be strengthened to reach the people in the barangays by forming a multi-sectoral coordinating body in the provincial and municipal levels that has the following functions:

- 1) To organize community drugstore organizations in under-served areas;
- 2) To monitor the prices and quality of drugs in the market and to make sure that there is proper selection of drugs to be analyzed;
- 3) To inform the people about the rational use of drugs;
- 4) To encourage the people to use herbal drugs endorsed by the Department of Health and to document experiences with other herbal drugs that can be tested by experts;
- 5) To establish a simplified drug purchase mechanism for the DIDP Area to make the purchasing and distribution of drugs more efficient, effective and equity oriented; there should be a weekly replenishment of drugs in the barangays especially for tuberculosis and other endemic diseases e.g. paragonimiasis in Cateel, Davao Oriental; and
- 6) For the provincial committee to monitor and control the prices of drugs in different municipalities.

A national non-government organization that has experience in making drugs available, affordable and accessible to the people can be the lead agency for this program.

(3) Upgrading the capabilities of health personnel and volunteers

Continuing education programs should be provided regularly to the health personnel and community health workers to further improve their medical skills to make them more effective administrators, trainers, community organizers, implementors of culture sensitive health programs and health educators. After the devolution, health personnel have more administrative and added executive functions as members of the Local Health Board.

In as much as transportation fare is expensive and the number of health personnel is limited, perhaps visiting professors or experts can conduct seminars for them. Post-graduate courses can be provided by correspondence or other alternative modes by professional groups or higher education institutions to help health professionals upgrade their knowledge without leaving their posts. Traditional birth attendants should be constantly trained on the aseptic and emergency procedures in assisting deliveries. Leaders of Barangay Health Workers should have management training so that they can become more effective workers.

Vehicles can be provided to the health personnel to increase mobility in order to provide services in hard-to-reach areas and to conduct regular monitoring of supervisors. Training on peer monitoring should be conducted to all health personnel and barangay health workers. Regular monitoring of peers and supervisors is needed to maintain quality health services.

(4) Improvement of the health information system

There should be a review in the system of collecting health data from the community up to the provincial level. Some of the information about target accomplishment in the vertical programs can be replaced with information about community participation in health programs. Community data health board can be institutionalized as one of the major support health programs by the local government units.

Computerization of data at the municipal level can be done to facilitate the reporting system. Communication facilities should also be upgraded to hasten information dissemination. Databank regarding the ill effects of chemicals used in banana plantations and mining industry needs to be organized.

(5) Focus on vulnerable population such as children

Improving the health delivery system for the children should be prioritized in areas where IMR is relatively high if not increasing like in 10 to 11 municipalities in Compostela Valley, Talaingod in Davao del Norte and Boston in Davao Oriental. An integrated health program focusing on children involving other sectors such as agriculture, education and the private sector is necessary to effectively implement the program.

5.2. Organization Unity

The devolution of health services resulted in separation of management of public health and hospital services. The provincial government is responsible for the operations of the hospitals while the municipal government is in charge of the health center. In some areas, this scheme has resulted to limited coordination between the two sectors. Unity among organizations in different levels is important since the health delivery system is much inter-related. Regular meetings of municipal health officers and the provincial health officer is necessary to closely monitor health programs and situations that are common among different areas.

Coordination with the community, non-government organizations (NGOs) and the private sector is necessary to supplement the limited health resources of the LGU. Involving the community in formulating the plan is important to make sure that health programs are responsive to the health needs of the people. The community is a rich source of human power to implement the programs. People in the community can be capable of providing for their health needs, such as drugs, if they can pool their resources together.

NGOs can provide technical and financial support in implementing health programs in the community. They can also go to other under-served areas to provide medical consultations and conduct health education.

Other government agencies implement other health-related activities such as water and environmental sanitation, health education in school and nutrition program for

pre-school children. Clarification of roles among different agencies will avoid overlapping of functions and programs.

5.3. Diversification

(1) Health programs implemented by a small cluster of families

While the barangay is the smallest political unit, most of the barangays particularly in rural areas are too big and some puroks are isolated. These geographic constraints lead to difficulty in implementing health programs because of inaccessibility of barangay health facilities and insufficiency of health personnel. Institutionalizing the clustering of families in every purok (sub-group in a barangay) will allow the people to identify health needs and find solutions to the problems. Strengthening the purok network will facilitate the planning and implementation of health programs that are adaptable to the situation of the community.

(2) Sourcing of funds for health programs

a. Strengthening health financing of the formal sector

One of the core problems in health is the limited finances. LGUs do not have sufficient funds to meet budget requirements of the health sector. The Magna Carta for Public Health Workers which was enacted before the devolution mandates more benefits for health personnel. As a result, a large portion of the budget for health goes to personal services. In some areas, the health budget has been rendered insufficient because of mismanagement, e.g. purchasing drugs from suppliers who give financial favors to local leaders.

A long-term strategy for this problem is to implement the National Health Insurance Program (NHIP) in a manner that is based on the degree of economic development of each area. For some areas, like Davao City and Tagum, where quality of health services is generally good both in the public and private sector, the NHIP can be introduced immediately. However, in some areas a "fee for service" scheme should be implemented first to make the people aware of the cost of health services. However, there is also a need to upgrade the health provider's technical capabilities and attitude, first and foremost.

b. Replicating innovative health financing programs

The innovative health financing schemes being implemented in some municipalities of Davao del Sur are worth replicating in the whole DIDP Area to augment the resources of the health sector and to ensure the sustainability of programs. The problem of unavailability of drugs in the community is addressed by the community drug insurance program or Botika Binhi which is implemented in ten barangays in Magsaysay, Matanao and Sulop since 1995. The Botika Binhi is a community-managed health financing program that makes quality drugs available and affordable in the barangays.

Since 1993, the fee for service scheme has been implemented in Malalag to allow the LGU to implement quality health services to the people. The collection of revenues both for curative and preventive health programs (e.g. consultations and immunization) were made possible through the enactment of a Local Revenue Code that was initiated by the municipal government.

Privatization of some health-related services such as operation of water system and proper waste disposal management will be helpful to reduce the burden to local government budget. This can be done by strengthening community-based water system organizations or the Barangay Water System Association (BWSA) which can be responsible for the maintenance of the water system and making sure that the water for the consumers is potable.

Proper waste disposal management is one of the common inadequacies of LGUs. Acquiring and maintaining a dumpsite is costly, unfavorable for the environment and for people's health. Formation, therefore, of community networks to recycle and reduce garbage is not only an innovative way of efficient waste management but also make waste disposal a concern and responsibility of all people.

c. Culture sensitive health care delivery system

The multi-ethnicity of the population warrants the implementation of health programs that consider the diverse healing practices and culture of the different groups. Health anthropological studies should be conducted to understand the health perception and concept of the different indigenous communities. The health culture of these peoples should be integrated in programs to make them effective.

Health institutions such as health centers and hospitals should hire staff from different IP groups so that they can assist the IP patients. Health education materials can be designed and written taking into consideration their cultures and dialects.

5.4. Agri-industrialization

(1) Community-based mass production of highly nutritious products

Good nutritional status of the community, particularly the children, is maintained by several factors such as sufficient production of food and supplementation of micro-nutrients. Intensification of vegetable home gardening program is one strategy that will make nutritious food available and affordable to families. Concomitant to this is the need to do massive information education campaign to encourage the people to eat more vegetables. Local production of processed food supplements will be helpful to make the program sustainable.

(2) Surveillance monitoring of occupational health hazards in agriculture

It has been observed by the municipal health officer in Nabunturan that skin infection and respiratory diseases are common among farmers and their dependents in commercial banana plantations. Health hazards of agro-chemicals (e.g. pesticides) should be determined through cohort and case control studies.

5.5. Value Development

(1) Value of health, value of commitment

One of the previous arguments advanced was the big gap seen between the health plans and the actual implementation of programs. The Government's health plan does not seem to consider the differences in capabilities of LGUs at different levels. Also, there is no integrated plan at the different levels of LGUs to maximize their health resources. This is partly a problem of organization unity but this is also an attitudinal problem characterized by avoidance of responsibility for initiating and coordinating different levels of work.

One of the most serious concerns identified in the workshops is the low priority given health and health services by LGUs. This results in inadequate support from LGUs in terms of budget, manpower, training, and benefits, such as hazard payment. Although health is a basic need of people, health services are costly and tangible, hence LGUs tend to treat health services as a luxury rather than a basic need.

Another area of concern identified in the workshops was the problem of people's perception and attitude towards health. Health perceptions of people in poor and/or isolated communities differ from those in urban areas. The Rapid Social Survey (RSS) done by the Association of Social Development Agencies in the Region mentioned that the IPs believe that the water they drink is potable and that diarrhea is caused by the food they eat. Also, it mentioned that the only time they go to health facilities to seek help is when sickness becomes very serious. Contrary to that, people in urban areas have an attitude of dependency to health services. This mentality increases demand for health services. The same kind of problem is seen among health personnel. The absence of self-reliance as well as commitment is not seen among some health personnel.

Strategies for changing individual's values are not easy to set up; however, early childhood education would be one of them. Some programs which are already being implemented by LGUs aim at changing ones values at an early age. The City Social Services and Development Office (CSSDA) has 39 programs and services which include child's early age development. Another strategy identified in Davao Oriental is to promote the idea of self-reliance and "Bayanihan System" which is the Filipino way of helping one another.

Another strategy identified during the workshops is to promote self-reliance among health personnel by organizing trainings on capability building and strengthening coordination mechanisms through team-building.

Regarding promotion of desirable values on health services among LGUs, the strategies identified are orienting LGUs on health programs by presenting health problems to them, by advocating the importance of health services, by conducting orientation to barangay officials and municipality/city officials on PHC approach, and by reporting BHWs performance to LGUs.

(2) Increasing public awareness about herbal medicine

The use of herbal medicine should be promoted among the health care providers in the DIDP Area. One strategy is to encourage LGUs to purchase herbal medicines in tablet form from the Davao Regional Herbal Processing Plant and make them accessible and available to the people. There is also a need to organize farmers of lagundi, sambong and tsaang gubat to provide a constant supply of raw materials for the Processing Plant to ensure their continuous production.

(3) Controlling ill-effects of chemical poisoning

The high level of mercury and cyanide in the blood of miners and schoolchildren in Davao Province and Compostela Valley necessitates prompt treatment and rehabilitation of these cases. However, surveillance monitoring is needed to control the spread of these problems.

While industrialization is improving the economic situation of the community, its ill-effects on the health of the people and the environment may far outweigh its

benefits. Health and socio-ecological researches should be conducted prior to the start of operations of any industrial program.

5.6. Amenity Creation

Half-way homes or rehabilitation centers are necessary for mentally-ill patients and substance abusers. These facilities will hasten the rehabilitation of the patients because they will be in a supportive environment with specialists who know best how to deal with them. At present, there is no facility in the DIDP Area for these marginalized group of people.

Health facilities should be sensitive to the needs of the elderly population and persons with disability. Flexibility in providing health services for working mothers and single parents should be considered (e.g. extended consultations after office hours and sometimes on weekends). Davao Province is planning to come up with a center for women in crisis to prioritize the health services for women as components of the maternal and child health program.

5.7. Outward Orientation

(1) Conducting regular medical outreaches

Service coverage is limited if health care providers will just stay stationary in a health facility. People living in remote areas sometimes cannot afford to go to far health centers due to time and opportunity lost. Mobile clinics and diagnostic laboratories are needed to provide basic health services to all the people.

(2) Training community health worker specialists

Training community health workers for every element of primary health care is important instead of relying mainly on a barangay health worker who knows everything but cannot effectively deliver health services. Organization of a Barangay Sanitary Inspectors Association (BSIA) in every barangay is important to ensure the proper maintenance of water and environment sanitation. The BSIA is a local initiative of the municipal health officer of Matanao, Davao del Sur and the provincial sanitary supervisor.

(3) Massive health information campaign

Developing health information materials that are sensitive to the health beliefs of the people are important to effectively increase the knowledge and change health practices for the good of the community. An audio-visual van will make health education more interesting.

Other sectors should also be involved in increasing health consciousness among schoolchildren and local officials. Retailers of agro-chemicals, mercury and cyanide should properly inform their clients how to properly handle the chemicals.

Learning from innovative health programs of other communities will be possible if there will be exchange programs among different communities with innovative health programs.

Chapter 6 Health Sector Programs and Projects

6.1. Health Sector Programs and Projects

In health, the programs and projects proposed have three-pronged intentions—survival of disadvantaged group and ensuring decent and humane lives. Moreover, they are intended to address the disadvantaged sector's minimum basic requirements for health and nutrition and other survival needs.

(1) Anchor projects

Identified as anchor projects in the health sub-sector are the following:

- 1) Health Financing Program, and
- 2) Health Care Delivery System Improvement Project

Health Care Delivery System Improvement Project

The competing demands on the limited resources of LGUs after the devolution has left LGUs unable to absorb the corresponding financial burden of maintaining basic health services. The project aims to provide training to health personnel, improve hospital buildings, facilities selectively, and network hospitals for more efficient delivery of services. Consultancy networking will be furthered through modern communication system. The project will result to efficient/cost-effective delivery of health care services.

Health Financing Program

The Health Financing Program (HFP) – recognizes the need to establish and/or strengthen the implementation of NHIP through the HFP. The program has three components: (1) the NHIP support project through some administrative mechanisms; (2) community-based health financing project such as the Botika Binhi (“seeding”); and (3) hospital-based health financing project through a fee-for-service financing scheme the proceeds of which will go back to the hospital budget. The program hopes to pave the way for the implementation of the NHIP, an established community-based health care financing and sustained delivery of quality health services.

(2) Other programs and projects

Compostela Valley Provincial Hospital Construction Project

The Compostela Valley Provincial Hospital Construction Project aims to provide efficient and effective tertiary health care services to the residents of the new province of Compostela Valley. It will convert the present 25-bed Montevista District Hospital to a 100-bed one.

Emergency Medical Care System Establishment Project

In general, rural areas in the DIDP Area have difficult access to medical services. The project aims to establish a system of emergency medical care services, one per province, in difficult, hard-to-reach communities, such as coastal barangays and remote upland rural communities. Features are a floating hospital where appropriate, a medical van, helicopter and communication facilities. The project will benefit the rural poor.

Primary Health Care Improvement Project

The project aims to strengthen the delivery of primary health care by upgrading facilities and providing minimum basic equipment. BHWs will likewise be provided with minimum basic equipment, lying-in clinics established, and urban health centers expanded.

Communicable Diseases Control Enhancement Project

The project aims to revitalize the much weakened TB Control Program. Eventually, other communicable diseases will be included.

Traditional Medicine Expansion Project

The project will promote the use of herbal medicine, encourage its production as a livelihood source for health workers and farmers and expand the manufacture of herbal medicine at the Regional Herbal Research and Processing Plant of DOH XI.

Integrated Health Resources Management Program

The program will establish a mechanism that would maximize scarce health resources and health information exchange among health servers.

Environmental Health Research Center Project

The project will establish a regional research and training institution, preferably a medical school, to carry out analytical work, epidemiological surveillance and training.

1. TERTIARY HOSPITALS

1.1. Clinical Service

1.1.1. Department of Medicine

- Stethoscope
- Sphygmomanometer
- Examining Light
- Neurological Hammer
- Oxygen Unit (Complete Set)
- Clinical Weighing Scale with Measuring Rod
- Suction Apparatus
- RCG Machine
- Proctoscope
- Beds with Guard Rails
 - 1) 90 cm width
 - 2) 70cm height

1.1.2. Department of Surgery

- Stethoscope
- Sphygmomanometer
- Examining Light
- Oxygen Unit (Complete Set)
- Surgical Instrument Set
- Instrument Table
- Treatment Table
- Tracheostomy Set
- Thoracostomy Set
- Paracentesis Set
- Beds with Guard Rails
 - 1) 90 cm width
 - 2) 70cm height

1.1.3. Department of Obstetrics & Gynecology

- Stethoscope
- Sphygmomanometer
- Examining Table with Stirrups
- Oxygen Unit (Complete Set)
- Obstetrical Instrument Set
- Examining Light (Gooseneck type)
- Kelly Pad
- Beds with Guard Rails
 - 1) 90 cm width
 - 2) 70cm height

1.1.4. Department of Pediatrics

- Stethoscope
- Sphygmomanometer
- Pediatric Weighing Scale
- Examining Light
- Examining Table
- Cut-Down Set
- Oxygen Unit (Complete Set)
- Lumbar Set
- Nebulizer
- EENT Diagnostic Set
- Pedia Beds with Guard Rails

1.1.5. Operating Room

- Major Operating Table
- Oxygen Unit (Complete Set)
- Sphygmomanometer with Stand
- Stethoscope
- Suction Apparatus
- Instrument Table
- Laparotomy Set
- C/S Set
- Autoclave
- Major Surgical Set
- Minor Surgical Set
- Operating Room Light
- Epidural Set
- Spinal Set
- Minor Operating Table
- Anesthesia Machine
- Anesthesia Table
- Laryngoscope with different sizes of blades
- Endotracheal tube, different sizes

1.1.6. Delivery Room

- Delivery Set
- D & C Set
- Delivery Room Light
- Obstetrical Table with Stirrups
- Suction Apparatus
- Sphygmomanometer
- Stethoscope
- Oxygen Unit (Complete Set)
- Instrument Table

1.1.7. Suspect Nursery

- Stethoscope
- Infant Scale
- Incubator

-
- Sterilizer
 - Suction Apparatus
 - Photo Therapy Light/Bili Light
 - Examining Light
 - Oxygen Unit (Complete Set)
 - Bassinets

1.1.8. Special Care Service

- Recovery Room
 - 1) Sphygmomanometer
 - 2) Stethoscope
 - 3) Suction Apparatus
 - 4) Oxygen Unit (Complete Set)
 - 5) Beds with Guard Rails
 - 90 cm width
 - 70 cm width

- ICU
 - 1) Sphygmomanometer
 - 2) Stethoscope
 - 3) Suction Apparatus
 - 4) Cut-down Set
 - 5) Oxygen Set (Complete Set)
 - 6) ECG Machine
 - 7) Bedside Monitor
 - 8) Endotracheal Tube
 - 9) Defibrillator
 - 10) Beds with Guard Rails
 - 90 cm width
 - 70 cm width

1.1.9. EENT Service

- EENT Diagnostic Set
- Laryngeal Mirror/Head Mirror
- Pen Light
- Refraction Unit
- Chalazion Set
- EENT Chair

1.1.10. Emergency & Out-Patient Service

- Stethoscope
- Sphygmomanometer
- Suturing Set
- Suction Apparatus
- Instrument Set
- Ambu Bag
- Sterilizer
- Instrument Table
- ECG Machine
- Defibrillator

-
- EENT Diagnostic Set
 - Weighing Scale with Measuring Rod
 - Examining Light
 - Neurological Hammer
 - Lumbar Set
 - Examining Table
 - Vaginal Speculum
 - Oxygen Unit (Complete Set)
 - Stretcher
 - Wheelchair

1.1.11. Dietetic Service

- Refrigerator
- Food Cart/Trolley
- Water Heater
- Exhaust Fan
- Ozterizer/Blender

1.1.12. Other Requirements

- Stand-by Generator
- Fire Extinguisher
- Transport Vehicle for patient use (Ambulance)

2. SECONDARY CATEGORY

2.1. Equipment/Instruments

2.1.1. Clinical Service (Medical, Surgical, OB-Gyne, & Pediatric)

- Stethoscope
- Sphygmomanometer
- Examining Light/Drop Light
- Neurological Hammer
- Oxygen Unit (Complete Set)
- Clinical Weighing Scale w/ Measuring Rod
- Suction Apparatus
- ECG Machine
- Surgical Instruments Sterilizer
- Tracheostomy Set
- Paracentesis Set
- Cut-down Set
- Cribs
- Op Instrument Set
- Perineal Light
- Ambu-Bag
- Nebulizer
- Beds with Guard Rails

2.1.2. Operating Room

- OR Table
- OR Light
- Oxygen Unit (Complete Set)

-
- Sphygmomanometer with Stand
 - Stethoscope
 - Suction Apparatus
 - Instrument Table
 - Laparotomy Set
 - C/S Set
 - Autoclave
 - Major Surgical Set
 - Anesthesia Machine
 - Laryngoscope with blades
 - Spinal Set

2.1.3. Delivery Room

- Delivery Set
- D & C Set
- DR Light
- OB Table with Stirrup
- Suction Apparatus
- Sphygmomanometer
- Stethoscope
- Oxygen Unit (Complete Set)
- Instrument Table
- Kelly Pad

2.1.4. Nursery

- Stethoscope
- Infant Scale
- Bassinet
- Sterilizer
- Suction Apparatus
- Examining Light
- Oxygen Light (Complete Set)
- Bili Light
- Incubator
- Drop Light

2.1.5. Recovery Room

- Sphygmomanometer
- Stethoscope
- Suction Apparatus
- Oxygen Unit (Complete Set)
- Beds & Rails

2.1.6. ER/OPD Service

- Stethoscope
- Sphygmomanometer
- Oxygen Unit (Complete Set)
- Suturing Set
- Suction Apparatus
- Instrument Set

-
- Ambu Bag
 - Tracheostomy Set
 - Gooseneck Lamp/Examining Light
 - Examining Table
 - Sterilizer
 - Instrument Table
 - Vaginal Speculum
 - Neurological Hammer
 - Clinical Weighing Scale
 - EENT Diagnostic Set
 - Stretcher
 - Wheelchair

2.1.7. Dietetic Service

- Refrigerator/Freezer
- Exhaust Fan
- Water Heater
- Cooking Units
- Kitchen Utensils
- Patient Tray

2.1.8. Other Requirements

- Stand-by Generator
- Transport vehicle for patient use
- Fire extinguisher

3. PRIMARY CATEGORY

3.1. Equipment/Instruments – Hospitals both government and private shall have the following minimum requirements

3.1.1. Clinical Service

- Stethoscope
- Sphygmomanometer
- Examining Light/Drop Light
- Examining Table
- Instrument Sterilizer
- Oxygen Unit (Complete Set)
- Clinical Weighing Scale
- Suturing Set
- Suction Apparatus
- Ambu Bag
- Neurological Hammer
- EENT Diagnostic Set
- Instrument Table
- Wheelchair
- Stretcher

3.1.2. Delivery Room (if provided)

- Stethoscope
- Sphygmomanometer

-
- Drop Light/Gooseneck Light/Examining Light
 - Oxygen Unit
 - Delivery Set
 - Suction Apparatus
 - DR Table with Stirrups
 - Instrument Table
 - Kelly Pad

3.1.3. Other requirements

- Fire Extinguisher
- Emergency Light (Battery or Gas)
- Transport vehicle for patient use

DAVAO DEL SUR

Name	Category	Needs	Situation	Programme/Project, other notes
Provincial Hospital in Digos	Tertiary	⊙	* As a tertiary health care provider, the building, facilities are substandard. Especially in-patients ward is quite inadequate	* JICA grant aid in 1991 (provision of equipment phase 1)
Gregorio Matas District Hospital (Kiblawan)	Secondary	○	* As district hospital, it seems meeting the requirement.	
Matanao Medicare Community Hospital	Primary	⊙	* Incompletion of expansion phase of hospital building. * Water source is well. * Each hospital function/equipment should be improved to meet safe standard.	
Malita District Hospital	Primary	(○)	to be looked into	
Tomas Lachica Dist. Hosp. (J.A.S.)	Secondary	(⊙)	to be looked into	
Sarangani Municipal Hospital	Primary	⊙	* The hospital function is not existing, but is dispensing medicines. * No water. * No X-ray machine. * Few beds with no mattress. * Inadequate instrument and medical supplies.	* In the case of emergency, a patient has to take a boat to go to Gen. San. Provincial hospital with 4 to 6 hours boat ride
Don Marcelino Municipal Hospital	Primary	(○)	to be looked into	

DAVAO CITY

Name	Category	Needs	Situation	Programme/Project, other notes
Davao Medical Center	Tertiary	X	* DMC is flagship hospital in Mindanao, hence it's over crowded * Functional and getting plenty of support from national and international supporters	* OECF funded project (1998)
Paquibato District Hospital	Primary	⊙	to be looked into	* According to the doctor, there are many upland lps and their access to the hospital is very difficult

DAVAO DEL NORTE

Name	Category	Needs	Situation	Programme/Project, other notes
Regional Hospital (Tagum)	Tertiary	X	<ul style="list-style-type: none"> * Construction work for new wards has been going on. * Many equipment were upgraded and functioning well. * Better situation 	<ul style="list-style-type: none"> * JICA grant aid in 1993 (phase 2) * OECF funded project (1998) * Centre of surgical networking
Samal District Hospital	Secondary	⊙	<ul style="list-style-type: none"> * 2 storey <u>old</u> building and one floor annex * Non-completion of the construction of other phases of the hospital building * Non-functional X-ray and autoclave 	* Should be upgraded to the tertiary hospital in the next 10 years because of expected high demands caused by urbanization
Kapalong District Hospital	Secondary	⊙	<ul style="list-style-type: none"> * Incomplete renovation of the hospital building * Equipment/supplies are inadequate * Insufficient condition as a district hospital 	

COMPOSTELA VALLEY

Name	Category	Needs	Situation	Programme/Project, other notes
Montevista District Hospital	Secondary	⊙	<ul style="list-style-type: none"> * Along the national highway * 105% occupancy rate * Obsolete laboratory equipment * building's wooden columns are infested with termites * Inadequate supply and equipment 	* need to be upgraded to the provincial hospital as early as possible
Pantukan District Hospital	Secondary	○	<ul style="list-style-type: none"> * Incomplete construction of the second phase of hospital bldg * All equipment are old, especially autoclave and surgical instruments 	
Maragusan Municipal Hospital	Primary	(○)	to be looked into	
Laak Municipal Hospital	Primary	(⊙)	to be looked into	

DAVAO ORIENTAL

Name	Category	Needs	Situation	Programme/Project, other notes
Provincial Hospital (Mati)	Tertiary	X	* The building is new and is functional as a tertiary hospital except dental section * Dental section does not have adequate equipment	* provision of equipment by JICA (year?)
Lupon District Hospital	Secondary	X	* The building and facilities are not new, however it is functional and well maintained	
Manay Municipality Hospital	Primary	⊙	* As a main curative care provider in the area, the facilities and functions should be much more upgraded to be properly operational.	* Need to be upgraded to District Hospital by geographical reason
Cateel District Hospital	Secondary	⊙	* As a main curative care provider in the area, the facilities and functions should be much more upgraded to be properly operational.	
Gov. Generoso Municipal Hospital	Primary	○	* As a primary hospital, it is functioning impressively * However, breakdown of X-ray is limiting their performance	
Baganga PHC Clinic	Primary	⊙	* 15 beds, primary hospital since 1997 by disaster fund * Not enough fund to operate clinic * Not enough equipment/instrument	* Need to be upgraded to District Hospital by geographical reason