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FINAL REPORT COVERING THE CONDUCT OF A SITUATION STUDY ON THE PHILIPPINE MARKET FOR HOSPITALS/ MEDICAL EQUIPMENT AND SUPPLIES

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FINAL REPORT COVERING SITUATION STUDY ON THE PHILIPPINE MARKET FOR HOSPITAL/MEDICAL EQUIPMENT AND SUPPLIES

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EXECUTIVE SUMMARY

This report embodies the results of a situation study conducted by Joaquin Cunanan & Co. on the Philippine market for medical equipment and supplies. The study was undertaken for the Canadian Embassy consistent with its continuing efforts to promote trade between the Philippines and Canada and was performed with the two-fold objective of assessing the current market situation to determine its growth prospects within the foreseeable future term and identifying opportunities for market entry by prospective Canadian exporters.

The tasks involved an analysis of the current structure and profile of the market as well as its historical performance over the past five (5) years and the various government regulations and policies attendant to it. This served as the take-off stage for determining the existing size of the market for medical equipment and supplies.

Forecasts of demand magnitudes were developed on the basis of historical and anticipated behavior of the basic determinants of market demand, such as population and income growth rates. Finally, a set of key issues critical to market access are presented in summary version to aid prospective Canadian suppliers in formulating responsive strategies to penetrate the local market.

Market Profile

The market is heavily dependent on imported items for its medical equipment and supplies requirements, particularly on the equipment and instruments. Although the market continues to rely mainly on foreign sources for furniture and supplies, the presence of local production capability in this area has given the market self-sufficiency and even export capability in certain commodities such as wooden furniture, sterilized absorbent cotton, adhesive plasters for medical and surgical purposes, linens and textiles, false teeth and artificial dentures and bridges of any material.

Major country suppliers of medical equipment and instruments are the US, Japan and the EEC. These same countries are joined by South Korea and China (PROC) as the biggest exporters of medical supplies to the market.

Consequently, importers (agents and/ or distributors) play a dominant role in the distribution system. This group is complemented by local manufacturers who provide mainly simple, low-technology equipment instruments and supplies. Both groups are supported by local traders who perform "middlemen" roles.

Hospitals constitute the biggest group among end-users, accounting for about 90 % of the market's total consumption of medical equipment and supplies. Hospitals in the country are classified as either general or special. General hospitals provide the broadest range of medical care services, covering all organ groups. Special hospitals, on the other hand, specialize on a particular area or organ group such as the heart, kidney or lung.

Private hospitals are about twice as many as public hospitals but lag behind in terms of total bed capacity. Both acquire medical equipment and supplies through basically the same procedures except that the government directly intervenes in the distribution flow for public hospitals. Private hospitals conduct their own screening of and bidding among prospective suppliers while all equipment and supplies requirements of public hospitals are screened, monitored and controlled by the government through the Department of Health (DOH).

Tariff rates on imported medical equipment, instruments and supplies have been relatively stable from 1981 Equipment, instruments and appliances have imposed a duty of 10 % throughout the period while tariff rate on medical supplies remained at 20 %. tariff rates are more or less reflective of government's recognition of the current status of local capability to manufacture these items. The tariff imported medical equipment and instruments relatively low as there are few local producers Medical supplies are charged a higher protect. because local manufacturers have shown improving capability in supplying some of these items.

Demand Parameters

The demand for medical equipment and supplies essentially a derived demand. Increased demand for medical care services effectively hastens utilization rate of equipment and instruments as well as medical consumption rate of supplies consummables. Simultaneuously, rising medical care is likely to improve the financial status of hospitals and other health service units, other things being equal, and makes them more able and willing upgrade facilities as well as equipment instruments.

In essence, the need for medical care can well be considered as one of the basic needs of man. In the same line that a nation has minimum requirements for food, clothing and shelter in order to survive, a minimum level of medical care is required to address man's basic right for health. Population growth effectively raises this minimum requirement by actually increasing the number of persons that the entire health care system serves.

The impact of income changes on the demand for medical care varies at different income levels. Below the poverty line, an improvement in real income of an individual would typically have minimal effects on his demand for medical care because he still lacks the more basic requirements for food, clothing and shelter. Increases in real income beyond the poverty line would very likely cause proportionately higher increases in the demand for medical care.

Size of Market Estimates

The Philippine market now consumes about FOB US \$ 28 million worth of medical equipment and supplies annually. Medical supplies make up the bulk or 52 % of total consumption followed by equipment and instruments with 46 %. Furniture accounts for the smallest share of only 2 %.

The market is about 75 % dependent on foreign sources of medical equipment and supplies. Local manufacturers

provide only 25 % of total consumption. Equipment and instruments account for the biggest component (61 %) of the market's total requirements for imported items, although supplies make up a significant share of 32 %. Consumption of locally manufactured items consists mostly of supplies which account for over 97 %.

A potential demand-supply gap equivalent to over a million-dollar (US) worth of medical equipment and supplies exists in the market. This gap was computed based on a 4,000 bed deficit that the Philippine hospital care system incurred in 1987 vis-a-vis the hospital bed requirement of the population during that year. In essence, this demand-supply gap directly corresponds with the value of medical equipment and supplies that could have been consumed by the market last year had the capacity of the local health care system been adequate to serve the minimum medical care requirements of the population.

Size of Market Forecasts

While improvements in real income in recent years (1986 to 1987) may well be sustained in the short-term (1988 to 1990), prospects for the market to grow within this period depend much on population growth. Given the current income distribution structure in the country, this timeframe will not be long enough for the economy to haul the majority (around 69 %) of Filipino families beyond the poverty line.

The government, however, cannot be expected to respond fully to population growth pressures in the short-term because of its limited budget. As reflected in the government's budgets for 1988 and 1989, health service is not one of the more immediate concerns of the government.

In the medium-term (1991 to 1995), the market is projected to grow faster (3.0%) than the population growth rate. During this period, the demand-supply gap in the health service sector will become so glaring that the government has to respond by putting up additional public health service units or by expanding existing hospital capacity. At the same time, sustained

improvements in real income would in all likelihood slowly gain impact on the demand for medical care, providing basis for the private health service units to grow. The long-term (1996 to 2000) is seen as the period when the market is growing fastest at an estimated annual rate of 5 %.

Within these timeframes, the market will remain to be heavily dependent on imported items. Such dependence is expected to remain concentrated on equipment and instruments throughout the projection period. Local capabilities to manufacture medical supplies and furniture are likely to gain ground over time, especially on items where the capital and technological requirements are relatively low.

SECTION A - INTRODUCTION

1. Existing Structure of the Philippine Health Care Industry

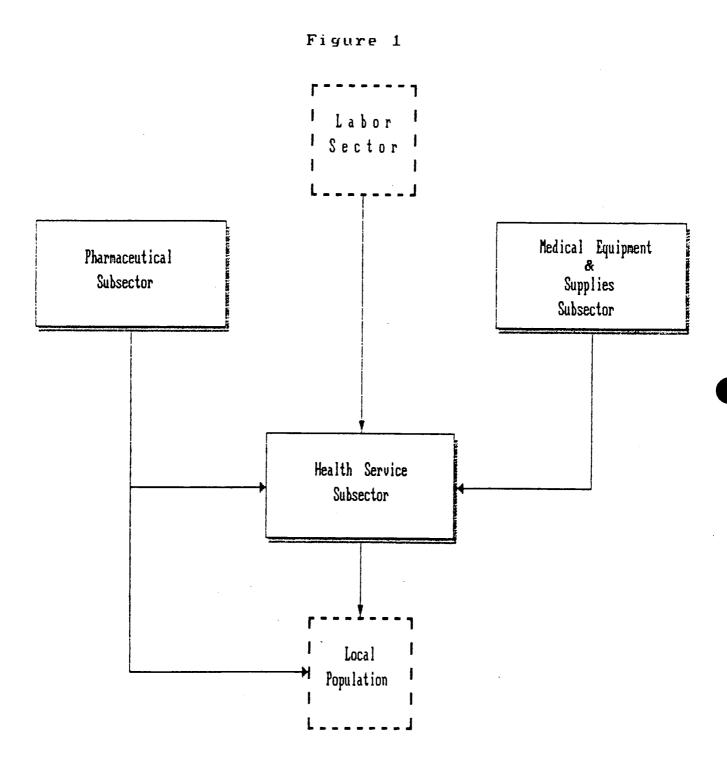
The Philippine market for hospital/ medical equipment and supplies represents just one integral segment of the entire local health care industry. By definition, this industry encompasses all sectors of the economy that "takes care" of the local population's health, whether it be physical, mental or otherwise. Among the other segments of this industry are the pharmaceutical and cosmetics sectors which are in themselves big industries.

Figure 1 in the page following depicts how the various sectors that make up the entire health care industry are linked to serve the local populace.

Said diagram breaks up the industry into four (4) basic sectors. In essence, the medical equipment and supplies segment serves the local populace indirectly by providing the health service sector the equipment, instruments and supplies necessary to carry out their operations. Complementing these are the drugs/medicine and other health care products and supplies coming from the pharmaceutical and cosmetics sectors. Inputs from the labor sector provide the medical and paramedical manpower who are indispensable in the day-to-day operations of the various health service units in the country.

While serving the local population indirectly through the health service industry, the pharmaceutical and cosmetics sectors are also directly linked with the end-users by providing them "over-the-counter" drugs, medicine and other health care products and supplies.

Hospitals constitute the largest segment of the health service industry. There are about 1,814 hospitals operating in the country today, of which only about one-third or 624 are government-owned or operated and the rest are private. Although outnumbered almost two-to-one, government hospitals account for almost 55 per cent of the total bed



THE PHILIPPINE HEALTH CARE INDUSTRY AT A GLANCE

capacity of around 97,000 in 1987, an indication that these hospitals are, on average, relatively bigger than their private counterparts.

Other health service units include dental clinics, industrial diagnostic centers, physical/medical examination clinics, rural health centers, barangay health stations, sanitaria, chest clinics, family planning clinics, lying-in clinics, social and mental hygiene clinics, EENT clinics, etc. Todate, the government operates around 15,000 such units distributed all over the country, with dental clinics as the most numerous. The population of similar health service units owned and operated by the private sector is estimated to be twice as big.

The medical equipment and supplies segment is made up of importers, agents, distributors, manufacturers and small traders. Although small traders dominate terms of total population, significant а οť medical equipment/supplies proportion requirements of the health service industry supplied by importers/distributors which comprise second smallest group in the sector in actual Manufacturers constitute the smallest numbers. number providing mainly simple medical furniture, instruments and appliances.

Medical personnel consists of physicians, nurses, midwives, dentists, pharmacists, sanitary inspectors and medical technologists. As expected, nurses make up the largest component, followed by midwives. Total population of physicians in the country today is estimated at 20,000, half of whom are under the employ of government health service units.

The government, through its various implementing agencies, monitors the flow of goods and services within the local health care industry to make sure that prescribed standards are complied with.

Total Philippine population is currently estimated at over 57 million and is expected to grow by 2.4 per cent annually from 1988 to 1992. Majority belong to the younger age groups; more than 50 per cent are

aged below 20 years and another 33 per cent belong to the 20 to 44 years age bracket. Of the thirteen regions in the country, the National Capital Region or Metro Manila and Region IV (Southern Tagalog provinces) are among the most populous.

2. Study Focus and Product Coverage

The schematic diagram depicted in Figure 1 distinguishes the medical equipment and supplies sector from the pharmaceutical sector. In medical parlance, however, the phrase "medical supplies" is meant to include surgical gloves, disposable needles and the like as well as drugs, medicine and other pharmaceutical supplies. This overlap may be traced to the fact that these goods are essentially complementary.

This study limits the Philippine medical equipment and supplies market to only two subsectors of the local health care industry, namely the health service subsector and the medical equipment and supplies subsector. The pharmaceutical and other health care products subsectors are, in effect, excluded from the study coverage.

Consequently, product scope consists only of items pertaining to these two subsectors, such as medical equipment, instruments, furnitures and supplies. In the conduct of the study, emphasis was given to items that go to the hospital care subsector, although the other segments of the health service industry were also covered. Items used in the conduct of R & D activities in the field of medical technology are excluded, although they easily qualify as medical equipment and supplies.

SECTION B MARKET PROFILE

1. Typical Composition or Product Mix

Hospital care is not only the most integral and vital form of health care, it is also the most expensive and visible element. People normally assess the status of the country's overall health care program based on the coverage, adequacy and quality of "health services" delivered by hospitals. The quality of hospital services is in turn measured in terms of its facilities, equipment, instruments, supplies and manpower.

Hospitals in the Philippines basically are classified as either general or special. General hospitals provide all medical services (or otherwise known as organ groups while special hospitals specialize only in one particular area or organ Examples of general hospitals group. are Philippine General Hospital (PGH), Makati Medical Center and Polymedic General Hospital, among others.

Special hospitals include the Philippine Heart Center, Lung Center of the Philippines, Kidney Center of the Philippines, National Orthopedic Hospital. Also classified as special hospitals are those providing exclusive services for certain population groups such as the Philippine Children's Medical Center and Jose Fabella Memorial Hospital.

The various products that flow into the Philippine market for medical equipment and supplies can at best be categorized according to the different aspects or areas of hospital care service as shown in Exhibit I.

A separate category pertaining to veterinary equipment and supplies was added to take account of equipment normally used in animal health care.

Included in the list are those equipment and supplies used by special hospitals, whose areas of specialization or organ groups are not normally found in a general hospital, such as orthopedic

equipment/ supplies and population growth control devices and supplies. In health service areas covered by both general and special hospitals, e.g., cardiology, pulmonary care, urology, the list also includes those equipment, instruments, devices and supplies used by special hospitals in addition to those used by general hospitals in the same area or field of hospital service.

A detailed list of medical equipment could easily run to thousands of items and no effort was made to enumerate all these. Finally, the list also takes into account those items, majority of which are supplies, that are not readily classifiable, e.g., general hospital devices, tools instruments and supplies such as linens, bedpans and the like.

2. Dominant Market Players

Overall, the various players or constituents of the market are as follows:

- o on the supply side, the medical equipment and supplies sector consists of the importers/agents/distributors, local manufacturers/distributors, and traders (wholesalers and retailers);
- o on the demand side, the health service units which constitute the end-users such as hospitals, industrial diagnostic centers, clinics and laboratories; other end-users are the various medical schools and one medical research institute in the country.

As earlier stated, importers/distributors play a principal role in the supply side by providing the bulk (estimated at around 80 %) of medical equipment and supply requirements. Among this group, importers/agents which maintain distributorship agreements with foreign principals are at an advantage over those with no tie-ups. The former usually has superior after-sales capabilities because of a stable supply of equipment maintenance

parts and consummables as well as continuous training of service technicians and engineers.

Also playing a significant role in the supply side are the local manufacturers. This group, however, is engaged mainly in the manufacture and distribution of relatively simple, low-technology equipment and hospital furnitures.

Both groups are complemented by local traders in the distribution process, who perform "middlemen" roles.

On the demand side, the hospitals constitute the dominant force among end-users. This group is currently the biggest client of medical equipment and supplies distributors. General hospitals such as medical centers and regional/provincial hospitals utilize the broadest range of medical instruments and appliances while special hospitals are potent markets for specialized and highly advanced equipment and devices of varying type.

3. Foreign Trade Statistics

National Statistics Office (NSO) government agency responsible for recording monitoring foreign trade transactions This agency uses the Philippine Commodity Classification (PSCC) Code in classifying export transactions and with countries. Although this code was formulated based on international trade standards prevailing in 1977 (the year a publication on foreign trade statistics first came out), its inherent incompatibilities with international trade classifications existing recently led to its revision. The improved version is now nearing completion and will be effected by the end of the year, out before the end of the current year.

In identifying commodity classifications in the PSCC Code) the various product categories listed in the Canadian brochure entitled "Health Care Products For World Markets" (published in 1986 to acquaint

foreign buyers with Canadian manufacturers of health care products) was used as guide.

The PSCC Code basically identifies two main divisions of medical equipment, instruments, appliances and their parts: electric apparatus for medical purposes and rediological apparatus, and; medical instruments and appliances not elsewhere specified (nes). Each main division is further subdivided into different product groups. Within each product group, the Code identifies specific items and then lumps the rest, or those which are not specified, into one item called "others" or nes.

Medical furniture appears as one of the subgroups within the main division of furniture and is broken down into specific items by make or composition, e.g., of wood or metal or plastic and/ or other materials, nes. Medical supplies are distributed over various divisions usually distinguished by composition or raw material used.

Exhibit II shows the various commodity classifications found pertinent to this study.

Overall, the PSCC Code does not provide as much details as desired (even relative to classifications contained in the Canadian brochure) such that a foreign manufacturer/exporter is left wanting for more specific breakdowns, especially of commodities grouped under "others" or "nes". As confined within the NSO, the various classifications listed in Exhibit II are, nevertheless, mutually exclusive and hence do not allow for counting.

a. Imports

The Philippine health care system absorbs an annual average of US\$ 17.4 million worth of imported medical equipment, instruments, appliances, furnitures and supplies computed from 1983 to 1987. Total imports in 1987 was valued at US\$ 21.0 million which already represents 6.7

% decline from the peak level of US\$ 27.7 million in 1983. An upward trend was observed from 1985 to 1987.

As shown in Table 1, medical equipment/appliances and instruments make up the bulk of total imports, averaging about US\$ 10.6 million yearly. This is followed by medical supplies with an annual average of US\$ 6.4 million and medical furniture with US\$ 140,000 annually. All three major groupings registered negative compound growth rates throughout the study period despite an increasing trend during the last three (3) years.

Of the 64 commodity classifications listed in Exhibit I, Item 872.02-09 recorded the highest value both in terms of actual and annual average values (Table 2). This is not at all surprising because this item is actually a subgroup which embraces all items not elsewhere specified within the largest product group of "medical, surgical, and veterinary instruments (including opthalmic instruments) and appliances (other than electromedical apparatus) and parts thereof".

Major country suppliers include the US, Japan and the European countries, notably UK and North Ireland and West Germany. These countries accounted for about 84 % of the country's imports of medical equipment and supplies in 1987 and about 75 % of total imports over the study period. These same countries provided the bulk of imported medical equipment/ instruments and appliances. For medical furniture and supplies, however, East Asian countries like Taiwan, China, Korea figured along with Japan as the biggest exporters to the Philippines.

The overall trend exhibited by the country's imports of medical equipment and supplies is suggestive of elasticity for such products relative to income. Economic instability triggered by political uncertainties during the

Table 1. Philippine Imports of Medical Equipment and Supplies By Main Product Groups in Value Terms CIF Value in Hillion US Dollars, 1983 to 1987

	Product Group	1983	1987	Annual Average	C G R (%)
1.	Medical, surgical and veterinary instruments (including opthalmic instruments) and appliances (other than electro-medical apparatus); parts thereof	10.3	8.8	7.1	-3.9
2.	Madding, gauze, bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packings for medical or surgical purposes	3.8	3.5	2.7	-2.0
3.	Electric apparatus for medical purposes and radiological apparatus; parts thereof	4.5	2.6	2.1	-12.8
4.	Other pharmaceutical goods	2.1	1.9	1.8	-2.5
5.	Laboratory, medical, surgical, dental and hygienic glassware, whether or not graduated or calibrated; ampoules	1.5	1.3	1.1	-3.5
6.	Hygienic, medical and surgical articles, of unhardened vulcanized rubber	1.8	0.8	0.8	-18.4
7.	Dental instruments and appliances	1.5	0.6	0.7	-2ú.5
8.	Mechano-therapy appliances, massage apparatus, artificial respiration ozone therapy, oxygen therapy, aerosol therapy or similar apparatus, breathing appliances (including gas masks and similar respirators)	0.7	0.4	0.4	-13.1
9.	Medical, dental, surgical, and veterinary furniture (e.g., operating tables, hospital beds with mechanical fittings); dentists and similar chairs with mechanical elevating, rotating or reclining movements; parts thereof	0.8	0.5	0.3	-11.1
10.	Clinical thermometers	0.2	0.3	0.2	10.7
11.	Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are worn or carried, or implanted in the body to compensate for a defector				
	disability 2/	g opthalmic lapparatus); ated or coated ings for 3.8 al apparatus; 4.5 2.1 ssware, 1.5 vulcanized 1.8 1.5 al respiration, ar apparatus, respirators) 0.7 g., operating ts and reclining 0.8 0.2 like; splints teeth and remorn or refector 0.4 0.1	0.1	0.1	-29.3
12.	OTHERS	0.1	0.2	-	18.9
	COMPOSITE		21.0	17.4	-6.7

This group contains the following items: sterile surgical catgut and similar suture materials; sterile laminaria and laminaria tents; sterile absorbable surgical hemostatics; opacifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to patients; blood grouping reagents; dental cement and other dental fillings; first-aid boxes and kits.

This lumps together product groups that registered minimal figures, as follows: hygienic, medical or surgical articles (of iron or steel; of copper; of aluminum), whether enameled or not (bed pans, urinals, irrigators, instrument and catheter trays, pus and solution basin, infant baths, etc.); invalid carriages and; mobile radiological units.

Table 2. Top Imports of Medical Equipment and Supplies By Commodity, In Value Terms CIF Value in Thousand US\$, 1983 to 1987

PSCC Code	1983	1984	1985	1986	1987	Annual Average	CGR (%)
872.02-09	9667.9	6656.9	4167.6	5070.4	8560.7	6824.7	-3.0
774.22-00	2964.5	1025.2	1255.9	460.5	2273.5	1595.9	-6.4
541.91-03	1666.5	843.5	374.3	739.3	1376.7	1000.1	-4.7
665.81-09	1195.1	624.3	533.7	785.9	1026.2	833.0	-3.7
541.91-01	922.2	426.0	515.0	810.6	909.3	716.6	-0.4
541.99-01	807.5	788.6	464.7	443.3	920.6	684.9	3.3
872.02-01	1528.3	444.3	281.9	465.3	595.9	663.1	-21.0
628.10-09	1245.3	250.2	253.7	466.9	512.3	545.7	-19.9
774.18-00	1454.9	389.3	225.8	165.6	313.0	509.7	-31.9
872.03-04	545.6	259.2	270.8	235.5	253.1	312.8	-17.5
821.21-03	489.9	6.9	67.6	36.2	500.1	220.1	0.5
874.54-01	226.1	125.4	205.3	133.6	250.9	188.3	2.6
665.81-01	213.5	140.8	122.8	184.1	276.5	187.5	6.7
872.02-02	270.9	209.8	41.9	46.5	133.5	140.5	-16.2
628.10-03	235.6	28.8	67.3	86.0	250.6	133.7	1.6

Source of basic data : NSO

period 1983 to 1985 caused declines in both levels of per capita and disposable income. less income to spend, the average consumer's expenditures on all areas, including medical care diminished, translating in turn to a contraction of revenues and incomes generated by hospitals and other health service units. This effectively lessened the financial capability of service units to upgrade/ modernize existing facilities or replace obsolete equipment and instruments. They were at the encouraged to exercise prudence on supplies consumption.

The political upheaval in early 1986 caused the economy to recover as evidenced by rising per capita income up to 1987. With minimized inflation during these years, the disposable income of the average consumer improved and so were his average expenditures on such essential items/ services as medical or hospital care.

b. Exports

Philippine exports of medical equipment and supplies totalled FOB US\$ 1.6 million over the study period, averaging slightly over FOB US\$ 300,000 annually (Table 3). Of the 12 commodity groups, only 6 items registered export figures in 1987 and even less in prior years. As shown in Table 4, most of these items recorded very minimal export levels.

Supplies dominated the country's exports accounting for about 82 % in 1986 or averaging almost US\$ 0.3 million a year from 1983 to 1987. Its biggest components are dental supplies (artificial teeth of all materials and artificial dentures and bridges of all materials) which comprised 74 % of total supplies export trade in 1987.

Exports of medical instruments are accounted solely by applicators and tounge depressors and averaged only US\$ 27,000 annually. Both medical

Table 3. Major Philippine Exports of Medical Equipment and Supplies, By Commodity and Major Product Division In Value Terms (FOB US\$000), 1983 to 1987

	PSCC Code	1983	1984	1985	1986	1987	Total	Annual Average	C G R (%)
1. By Commodity	899.62-01	0.0	115.6	168.8	342.9	183.9	811.2	162.2	16.7
•	628.10-03	87.1	66.7	121.1	21.6	67.0	363.5	72.7	-6.3
	899.62-02	0.0	4.7	110.4	139.1	21.7	275.9	55.2	66.5
	872.02-03	30.9	24.4	22.9	4.0	52.1	134.3	26.9	14.0
•	541.91-01	0.2	0.9	1.7	7.4	1.4	11.6	2.3	62.7
	872.03-03	0.0	0.0	0.0	0.0	6.9	6.9	1.4	•
	541.91-03	0.0	0.0	0.0	,0.0	2.0	2.0	0.4	-
•	628.10-09	0.0	0.0	0.0	0.0	1.0	1.0	0.2	-
	821.21-12	0.0	0.0	0.0	0.0	0.9	0.9	0.2	•
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
	Composite	118.2	212.3	424.9	515.0	336.9	1,607.3	321.5	29.9

2. B	y Major Product Group	1983	1984	1985	1986	1987	Total	Annual Average	C 6 R (%)
0	Supplies	87.3	187.9	402.0	511.0	277.0	1,465.2	293.0	33.5
0	Instruments	30.9	24.4	23.9	4.0	52.1	134.3	26.9	14.0
0	Equipment	0.0	0.0	0.0	0.0	6.9	6.9	1.4	•
0	Furniture	0.0	0.0	0.0	0.0	0.9	0.9	0.2	-
	Composite	118.2	212.3	424.9	515.0	336.9	1,607.3	321.5	29.9

Table 4. Philippine Exports of Medical Equipment and Supplies By Main Product Groups in Value Terms • FOB Value in Thousand US Dollars, 1983 to 1987

	Product Group	1983	1984	1987	Annual Average	C G R (%)
1.	Medical, surgical and veterinary instruments (including opthalmic instruments) and appliances (other than electro-medical apparatus); parts thereof	30.9	24.4	52.1	26.9	14.0
2.	Wadding, gauze, bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packings for medical or surgical purposes	0.2	0.9	3.4	2.7	103.1
3.	Electric apparatus for medical purposes and radiological apparatus; parts thereof		• .	•	-	-
4.	Other pharmaceutical goods 1_/	•	•		•	-
5.	Laboratory, medical, surgical, dental and hygienic glassware, whether or not graduated or calibrated; ampoules	•	-	· •	•	-
6.	Hygienic, medical and surgical articles, of unhardened vulcanized rubber	87.1	66.7	68.0	72.9	-6.0
7.	Dental instruments and appliances	-		•	•	-
8.	Mechano-therapy appliances, massage apparatus, artificial respiration ozone therapy, oxygen therapy, aerosol therapy or similar apparatus, breathing appliances (including gas masks and similar respirators)	0.0	0.0	6.9	1.4	-
9.	Medical, dental, surgical, and veterinary furniture (e.g., operating tables, hospital beds with mechanical fittings); dentists and similar chairs with mechanical elevating, rotating or reclining movements; parts thereof	0.0	0.0	0.9	. 0.2	
10.	Clinical thermometers	-	-	-	-	-
11.	Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are morn or carried, or implanted in the body to compensate for a defector disability	0.0	120.3	205.6	217.4	19.6
12.	OTHERS ²	-	•	. •	-	-
	COMPOSITE	118.2	212.3	336.9	321.5	29.9

This group contains the following items: sterile surgical catgut and similar suture materials; sterile laminaria and laminaria tents; sterile absorbable surgical hemostatics; opacifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to patients; blood grouping reagents; dental cement and other dental fillings; first-aid boxes and kits.

Source of basic data: NSO

This lumps together product groups that registered minimal figures, as follows: hygienic, medical or surgical articles (of iron or steel; of copper; of aluminum), whether enameled or not (bed pans, urinals, irrigators, instrument and catheter trays, pus and solution basin, infant baths, etc.); invalid carriages and; mobile radiological units.

furnitures and equipment registered minimal figures.

Top destination countries of said export items are the US, West Germany, and Canada, in that order.

The foregoing analyses clearly indicate that the Philippines is basically a net importer of medical equipment, instruments and supplies. While this is generally true, there are a few items which the Philippines supplies more than it buys from the international markets. These are dental supplies (artificial teeth and artificial dentures and bridges of all materials) and applicators and tounge depressors, both of which registered very minimal import figures. While exports of these items are not that substantial, this nevertheless suggests the existence of local capabilities in the manufacture of such items.

4. Local Production

The government uses a different classification system in recording and monitoring local production of goods and services. This classification system is embodied in the Product and Material Code which differs from the PSCC Code used in recording foreign trade statistics.

Production data is gathered and compiled by NSO from an annual survey of manufacturing establishments. Because of the leadtime required in conducting the survey and processing survey results, latest available data on local production pertain to 1986. Data for 1987 will be ready only by the middle of next year or 1989.

Total production over the study period was valued at P 375.6 million, for an average of about P 93.9 million annually. Peak level was in 1986 at P 130.7 million which constitutes a compound annual growth rate of almost 20 per cent from the 1983 level of only P 46.1 million (Table 5).

Supplies make up the bulk of total production, accounting for over 95 per cent and averaging over

Table 5. Value of Local Production of Medical Equipment and Supplies, In Thousand Philippine Pesos Actual (1983 to 1986) and Projected (1987)

								1987	
Consodity	1983	1984	1985	1986	TOTAL	Annual Average	C G R (%)	Pesos	US\$*
1. Absorbent cotton, sterilized	22,250.1	40,786.3	24,783.5	44,405.4	132,225.3	33,056.3	25.9	55,906.4	2,727.1
2. Adhesive plaster tape, medicated	0.0	0.0	0.0	10,009.2	10,009.2	2,502.3	-	10,009.2	488.3
3. False teeth	0.0	0.0	5,813.0	7,298.7	13,111.7	3,277.9	25.6	9,167.2	447.2
4. Surgical sterilizer	0.0	0.0	564.3	765.0	1,329.3	332.3	35.6	1,037.3	50.6
5. Incubator, electric	0.0	0.0	260.8	466.0	726.8	181.7	78.7	832.7	40.6
6. Wheelchair	87.7	0.0	18.5,	297.9	404.1	101.0	50.3	447.7	21.8
7. Stretchers, metal	89.0	76.7	30.8	111.2	307.1	76.9	1.1	119.8	5.8
B. Hospital bed	1,373.0	1,533.8	702.3	221.5	3,830.6	957.7	-45.6	120.5	5.
9. Medical instruments, except x-ray	0.0	0.0	55.2	108.0	163.2	40.8	95.7	135.1	6.6
10. Electromedical apparatus and instruments	92.9	0.0	51.5	75.3	219.7	54.9	-6.8	70.2	3.4
ll. Dental cabinet	0.0	0.0	0.0	37.4	37.4	9.4	-	37.4	1.8
12. Table, medical or surgical	803.8	153.4	211.1	27.3	1,195.6	298.9	-67.6	8.8	0.4
13. Furniture, special medical and dental	4.4	153.4	79.1	29.9	266.8	66.7	89.4	56.6	2.8
 Other surgical, medical, dental and orthopedic equipment, not elsewhere classified 	836.5	2,231.0	886.8	713.0	4,667.3	1,166.8	-5.2	675.9	33.0
15. Other orthopedic, surgical and medical supplies, not elsewhere classified	50,568.8	68,032.3	22,391.6	66,087.0	207,079.7	51,769.9	9.3	72,233.1	3,523.6
						~~~~~		**********	
COMPOSITE					375,574.4			150,858.0	•

Exchange rate used is US\$ 1 = 20.5 Pesos

P 94 million annually. Among medical supplies, sterilized cotton ranks first, followed by false teeth and adhesive plaster tape.

Local production data more or less confirms (or agree with export statistics) presented earlier. Among the biggest items is code 3404049 described as false teeth, which is also the single biggest export item (Table 4).

Other items include wheelchairs, stretchers, hospital beds, surgical sterilizers, electric incubators, surgical or medical tables, and dental cabinets. This further supports our observation as stated before that the present capabilities of our local manufacturers are limited to relatively simple equipment and instruments and focus mainly on hospital furniture.

#### SECTION C - MARKETING/ DISTRIBUTION SYSTEM

#### 1. <u>Distribution Flow</u>

Figure 2 shows in schematic view the basic flow governing the distribution system in the Philippine market for medical equipment and supplies and how the different market players interact in such market.

Said figure highlights the basic difference between private and government-owned or controlled end-users of medical equipment and supplies. Although the government, through the Department of Health (DOH) and the Bureau of Food and Drugs (BFAD), impacts on both distribution systems, its role in the former parallels that of a regular monitoring agency which simply requires registration and issues certificates to entities involved in the business. In contrast, the government takes on a very active role in the latter system through direct involvement in the procurement of medical equipment, instruments and supplies for public health service units.

Importers provide the crucial link between foreign manufacturers or exporters of medical equipment and supplies and the local market, thus becoming the dominant player on the supply side. In this group, direct importers or agents enjoy the strongest influence on supply patterns and practices.

Local manufacturers and traders play supportive in the distribution system. The roles provides mainly medical supplies such as sterilized cotton, adhesive plaster and false teeth relatively simple equipment instruments. and Wholesalers and retailers that comprise the latter group serve as conduits to trade, catering mainly to the needs of health service units which importers, agents and distributors and local manufacturers cannot otherwise penetrate.

Under the end-user group, hospitals are easily the most prominent, serving as the biggest clientele of distributors. Most hospitals deal directly with

Figure 2. Distribution Flow Chart of Health Care Equipment, Instruments and Supplies

(a) (b) Suppliers to Private End-Users Suppliers to Government End-users Locally - Made Medical Equipment and Supplies Imported Medical Equipment and Supplies Locally - Made Medical Equipment and Supplies Imported Hedical Equipment and Supplies Local Local Importers/ Distributors Local Agents/ Distributors Local Importers/ Distributors Agent:/ Distributors Traders/ Middlemen/ Traders/ Middlemen/ Dealers Traders/ Middlemen/ Traders/ Middlemen/ Dealers Dealers Dealers D 0 H PRIVATE END-USERS o Hospitals o Clinics o Health Centers GOU'T END-USERS o Hospitals o Clinics o Health Centers

importers or agents, especially those located in the urban centers where majority of distributors are conveniently based. Hospitals operating in the provinces and far-flung areas, especially the small ones, source their requirements through small traders.

Clinics represent the small health service units distributed all over the country and are also classified as either public or private. Among this group are the industrial diagnostic centers, all of which are private entities engaged mainly in laboratory and medical examination services. These health service units usually abound in urban centers catering mostly to the needs of large business concerns.

Private-owned clinics, mostly small also proliferate in urban areas. In the countryside, public health service units serve most of the medical care needs of the people. A rural health center is usually installed within each municipality while a barangay health station is normally assigned to each barangay.

Overall, the same basic distribution flow governs public and private end-users. Government intervention in the latter system may well be justified, but its main effect is that it slows down the whole process for the public end-users which constitute about 50 per cent of the total bed capacity in the country. As it is, this policy may be viewed as more of a safety measure to discourage graft and corruption than a tool for improving efficiency in the local health care system.

It is a common observation in the hospital care business that government hospitals lag behind their private counterparts in such aspects as facilities, equipment, instruments and supplies, the former having to live with obsolete ones.

# 2. <u>Profile and Distribution Practices of Individual Market Players</u>

#### a. Importers/ Distributors

This group serves as the vital channel through which imported medical equipment and supplies reach the local market. Based on the results of the survey conducted among end-users it is estimated that, on average, about 80 % of the medical equipment and supplies used by a typical Philippine hospital are imported. Indeed, importers or distributors play a crucial role in the distribution process by way of linking up the local hospital/ medical care industry with foreign suppliers and helping promote technology transfer.

Importers or distributors make up a relatively small component of the total population of suppliers of medical equipment and supplies in the country. Of total number of respondents to a survey conducted by the Department of Trade and Industry (DTI) among establishments engaged in the medical equipment and supplies business, only about 14% out. of 73 respondents) were importers. Manufacturers are even less or just 11%. (or about 75 %) are "buy-and-sell", The bulk "buy-and-sell", of small wholesalers and retailers consisting (Please see Exhibit III).

The proliferation of unscrupulous dealers in the business who either sold substandard products and/ or have failed to deliver the necessary after-sales service support presents some problems to the legitimate suppliers. In October 1981, a group of nine (9) importers of hospital, medical and laboratory equipment and supplies saw the necessity and importance of forming an organization to police their own ranks and to prevent the entry of more "fly-by-night" traders who were damaging the industry's overall reputation.

Today, the association, called <u>Hospital</u>, <u>Medical</u> and <u>Laboratory Equipment</u> and <u>Supplies Importers'</u>
<u>Association of the Philippines (HOMLESIAP)</u>, <u>Inc.</u>, has 22 member-firms which are all major importers of

medical equipment and instruments, hospital supplies and consumables, medical diagnostic instruments, laboratory chemicals and supplies, process control instruments and laboratory equipment and instruments. Exhibit IV lists these member firms and their respective product lines in directory form.

All HOMLESIAP member firms maintain distributorship or contracts, most of which agreements foreign manufacturers and/ exclusive, with suppliers of medical equipment and virtually making them sales agents. In addition, all firms have after-sales service capabilities and employ a number of service technicians/ engineers. Majority of importers keep inventory stock although on specific items only. Equipment and instruments, especially the more expensive ones, are normally on indent basis while medical supplies, sold equipment parts and simple instruments are handled on ex-stock basis.

Suppliers in general offer COD, 30-day and 60 pday payment terms. COD is normally offered for fast-moving items such as medical supplies (e.g., disposable gloves) and consumables (e.g., laboratory reagents) while 30-day settlement is common for instruments such as stethoscopes, retinoscopes and fetal monitors.

A longer payment period is allowed for medical equipment and appliances. Depending on the equipment cost, payment terms normally range from 60 days to one year, although suppliers also provide installment arrangements for as long as two (2) years on a case-to-case basis (e.g., for very costly items).

The package also includes a warranty period ranging from 60-days to one-year offered for instruments and equipment. This warranty covers repairs and maintenance, including parts replacement on account of the supplier. For equipment that need to be installed, e.g., X-ray equipment, the installation cost is also normally shouldered by the supplier. In addition, it is standard practice for the supplier to train end-user's staff on the proper use and care

of the purchased equipment, especially if this is new or only recently introduced in the local market.

Selling efforts of importers/ distributors/ suppliers normally consist of:

- o applying for and renewal of required accreditation with the DOH and private end-users;
- o participating in biddings conducted by these endusers;
- o submitting brochures and other paraphernalia about their products; and
- o conducting demonstration activities to end-users.

Because buyers place great importance on the aftersales capabilities of suppliers, middlemen (importers, agents, distributors) see to it that their existing distributorship agreements with foreign principals include a standing arrangement to the effect that the latter would be providing technical training to the former's technicians/engineers, as well as equipment/ instrument parts and consummables.

#### b. Manufacturers/ Distributors

was noted earlier that the present capabilities It of local manufacturers of medical equipment and limited to the manufacture supplies are relatively simple and inexpensive items. These items consist of hospital beds and wheelchairs, mostly wooden and without mechanical fittings, medical cabinets and other simple hospital furniture and tools such as bedpans, urinals, irrigators, medical trays, medical and surgical tables. As reflected in Table 4, among the simple equipment now manufactured by local producters are electric incubators and surgical sterilizers. False teeth emerged as the second biggest item among medical supplies produced in the country in 1986.

The population of local manufacturers is also small. This is perhaps due to the scarcity of biomedical

engineers in the country. Although technology transfer is one of the objectives of HOMLESIAP, Filipino service technicians functions essentially as service technicians. A list of selected local manufacturers of medical equipment and supplies is presented as Exhibit V.

Based on the survey conducted involving users of medical equipment and supplies, we gather that a local garments and textiles manufacturer has succeeded in becoming the exclusive supplier of sheeting materials (bedsheets and the like), dressings, uniforms, linens and similar items to both government and private hospitals. This indicates the presence of local capabilities in the manufacture of such items.

Very little information has been gathered about local manufacturers of medical equipment and supplies. Most of the few firms which identified themselves as manufacturers in some directories and membership listings turned out to be not really manufacturers. Suffice it to say that the local manufacturer of medical equipment and supplies is still in the backyard stage and prospects in the horizon are not that bright.

#### c. Traders (Wholesalers and Retailers)

Playing a supporting role to middlemen are the traders consisting of wholesalers and retailers. These traders are essentially small firms that serve as conduits between importers and relatively small end-users such as private medical and dental health units. It is important to note that there are no more than thirty (30) legitimate importers (as estimated by industry representatives) serving the entire country and these importers are all based in the National Capital Region or Metro Manila without provincial or countryside outlets. Understandably, there exists a gap between importers/ distributors and small end-users, especially those in the provinces, and it is essentially this gap that these small traders attempt to satisfy.

To illustrate how small these traders are, of the 55 identified in Exhibit III, over 50 % (or 28 out of 55) have capitalization of \$\mathbb{P}\$ 50,000 or less, some having as low as \$\mathbb{P}\$ 10,000 to \$\mathbb{P}\$ 40,000. Further, of the 73 firms listed in said exhibit, only about 10 have capitalization of \$\mathbb{P}\$ 500,000 or over. In most cases, these wholesalers and retailers do not trade medical equipment and supplies alone.

Being conduits to trade, these wholesalers and retailers offer the same selling package as those provided by importers or distributors with added mark-ups. It was also gathered that these small trading firms also operate as service outlets but still depend on the importers/ distributors for parts and technical training of service personnel.

# d. Hospitals (Private)

Private hospitals in the country acquire their respective equipment and supply requirements through public biddings. For this purpose, a hospital usually maintains a list af accredited suppliers and also accepts applications for accreditation on a continuing basis. When the need arises, the hospital contacts these suppliers and invite them to participate in the bidding. The winning bid is selected on the basis of the lowest responsible-bid criterion, i.e. the lowest bid among those suppliers with established track record in terms of product quality and after-sales service.

Although private hospitals in Metro Manila are equipped with relatively modern facilities as compared to those based in the provinces, Philippine hospitals generally practice "rebuilding" or "overhauling" when upgrading their premises. This is usually done in the case of highly expensive equipment. Instead of replacing the equipment, a hospital calls on the services of its supplier to rebuild or overhaul the depreciated equipment. While this practice is more common to small hospitals operating in the provinces, medical centers in Metro Manila are said to have similarly engaged in this practice.

For bulk purchases large hospitals in Metro Manila agree to open the required letters of credit (LCs) for their importers/ suppliers. This is usually done by hospitals when conducting a major equipment upgrading or modernization effort which does not often happen.

#### e. Industrial Diagnostic Centers

Industrial diagnostic centers have basically the same procurement practices as private hospitals in the country. While these clinics also conduct biddings among suppliers, such biddings are commonly conducted during the setting up stage. Upgrading of existing equipment and instruments are done gradually and is thus coursed through small traders. In addition, these clinics also practice rebuilding for depreciated equipment.

### f. Government Hospitals and Clinics

The distribution practices of these market players are discussed in the following subsection.

#### 3. Government Regulations Affecting the Local Market .

As depicted in the distribution flow chart (Figure 2), the government through its various agencies act as a screen before imported and locally-made medical equipment and supplies finally get to the end-users. Executive Order 119 entitled "Reorganizing the Ministry of Health, Its Attached Agencies and for Other Purposes" dated January 30, 1987 empowered the Department of Health (DOH), among other powers and functions to:

"Regulate the operation of and issue licenses and permits to government and private hospitals, clinics and dispensaries, laboratories, blood banks, drugstores and such other establishments which by nature of their functions are required to be regulated by the Department."

The organization structure of the DOH is presented in a schematic diagram as Figure 3.

Figure 3. ORGANIZATION STRUCTURE OF THE DEPARTMENT OF HEALTH (DUH) SECRETARY 0 F CHIEF OF SECRETARY'S STAFF: UNDERSECRETARY HEALTH ATTACHED AGENCIES o As for Legal Affairs; Legal Service
o As for Financial, Operations & Front Line
Services Audit
o Community Health Service
o Public Info. & Health Educ. Service
o Health Intelligence Service
o Internal Flaming Service
o Foreign Assistance Coordination Service o Philippine Medical Care Commission o Dangerous Drugs Board CURATIVE SIDE PREVENTIVE SIDE OFFICE FOR MANAGEMENT SERVICES OFFICE FOR STANDARDS & RESULATION OFFICE FOR HOSP, & FACILITIES SERV. OFFICE FOR PUBLIC HEALTH SERVICE UNDERSECRETARY/ ASST. SECRETARY UNDERSECRETARY/ ASST. SECRETARY UNDERSECRETARY/ ASST. SECRETARY UNDERSECRETARY/ ASST. SECRETARY BUREAU OF RESEARCH HOSPITAL OPERATIONS **ADMINISTRATIVE** MALARIA CONTROL AND LABORATORIES AND MANAGENEDIT FINANCE BUREAU OF FOOD AND DRUGS RADIOLOGICAL HEALTH SCHISTOSONIASIS CONTROL BUREAU OF LICENSING MANAGENENT ADVISORY HOSPITAL MAINTENANCE TUBERCULOSIS CONTROL AND REGULATIONS HEALTH MANPONER NATIONAL QUARANTINE COMMUNICABLE DISEASE HEALTH INFRASTRUCTURE DEVELOPMENT & TRAINING OFFICE CONTROL PROCUREDIENT AND HON-COMMUNICABLE LOGISTICS EXECUTIVE COMMITTEE FOR DISEASE CONTROL MATIONAL FIELD OPERATIONS BIOLOGICAL PRODUCTION MATERIAL AND CHILD MEALTH 13 REGIONAL MEALTH 15 HOSPITALS AND FAMILY PLANNING OFFICES MEDICAL CENTERS PROVINCIAL HEALTH OFFICES MUTRITION DISTRICT MEALTH OFFICES DESTAL MEALTH 27 DIVIRONIDITAL

The DOH now operates a conglomerate of 537 government hospitals and other health care units with a total bed capacity of 40,359. These hospitals and health care units are classified and broken down as follows:

o	high specialty hospitals	4
0	special hospitals	5
0	medical centers	8
0	regional hospitals	14
0	provincial hospitals	77
o	district hospitals	272
0	sanitaria	8
0	municipal hospitals	61
0	medicare community hospitals	87
0	research institute	1
	Total	537
		===

Existing government regulations, policies and procedures affecting the distribution flow of medical equipment and supplies in the market are enumerated and discussed below.

o All requirements of government hospitals and health care units for medical equipment and supplies are screened, monitored and controlled by the DOH through its central and regional offices. These offices receive all requisitions for medical equipment and supplies made by government end-users and conduct public biddings among accredited suppliers. Figure 4 shows the process flow involved in the acquisition of medical equipment and supplies by government-owned or controlled hospitals.

Figure 4 Procedural Flow Covering the Acquisition of Meascal Equipment and Supplies By Government Hospitals and Other Public Health Service Units in the Phils

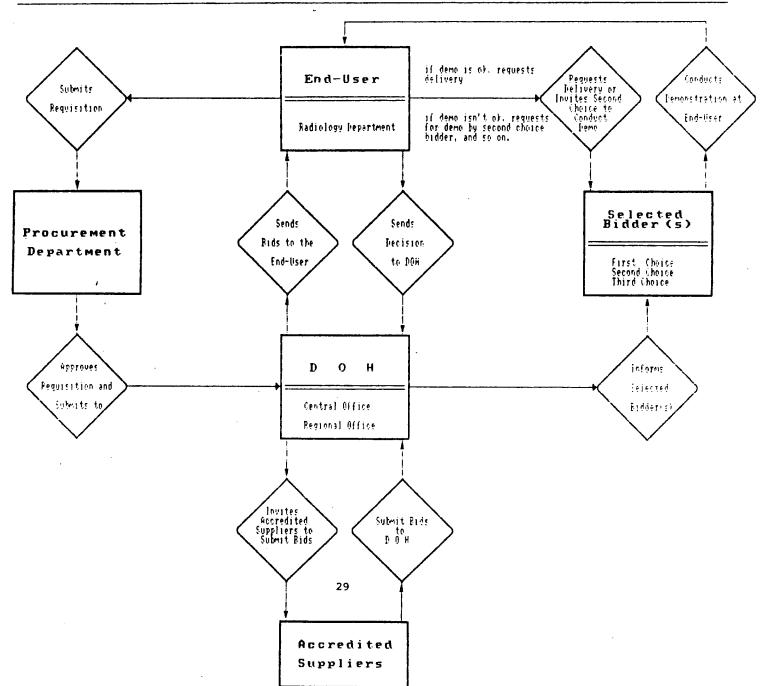


Figure 4, a request reflected in acquisition comes from a specific hospital usually referred to as department end-user. end-user, e.g., radiology department, specifies this request equipment type it needs the reason for such request. requisitions coming from various end-users are then submitted to the hospital's procurement office for approval. Approved requisitions then submitted to either the concerned Regional Office or the Central Office. whichever is appropriate. This office then conducts public biddings among its roster οf accredited suppliers. All submitted public bids are then sent to the specific end-user who requisitioned the equipment. Award of bids is normally based on the "lowest responsible bid" principle.

Only DOH-accredited suppliers are qualified to join the biddings. For this reason the DOH Central and Regional Offices maintain a list of their respective accredited suppliers and constantly receive and process applications for and renewal of accreditations.

(2) basically are two types accreditation: Office Central Accreditation entitles accredited suppliers to join biddings conducted at the DOH Central Office and to serve all DOH agencies nationwide; on the other hand, Regional Accreditation allows accredited suppliers to serve all DOH agencies nationwide but not to participate in biddings conducted at the DOH Central Office. Exhibit VI provides information the rules general on regulations, policies and procedures as well as requirements and criteria for evaluation of each of these application for types οf accreditation.

For suppliers of hospital, laboratory, medical or dental supplies, among the requirements for accreditation are a valid license to operate from the Bureau of Food and Drug (BFAD) and valid product registration with the same agency for each item carried for sale. BFAD requires product registration for each of the following items carried for sale by the supplier (Table 6).

As of end of 3rd quarter 1988, the DOH accredited suppliers of medical equipment and supplies and service/ equipment maintenance outlets totalled to 163. Of these, 98 or over 60% are distributors of medical suppliers, 52 or 32% are equipment suppliers and 13 or almost 8% are service outlets. Exhibit VII presents a list of selected accredited firms in directory form.

- o The DOH conducts regular evaluation of both private and government hospitals to make sure that these health care units comply with the minimum requirements on staffing, physical plant, equipment and instruments and operations. Hospital standard minimum requirements for technical equipment and instruments are presented as Exhibit VIII.
- o The DOH through its Radiation Health Service (RHS) regulates the production, import and export of radiation emitting apparatus, as well as non-ionizing radiation devices. Donated equipment capable of emitting radiation are released only after an evaluation is done on the documents covering the equipment. The RHS also conducts regular inspection of such equipment and apparatus installed in private and government health premises.
- Tariff rates on imported medical equipment, 0 instruments and supplies have been relatively stable from 1981 to 1988. As shown in Table 7 in following, medical equipment, page instruments and appliances are imposed a duty of 10 % throughout the period while the tariff rate on medical supplies remained constant at 20 %. These rates are more or less reflective of the government's recognition of the necessity of these products to nation's health and assessment of the current status of the market, i.e., medical equipment and instruments in which

# Table 6. List of Hospital/Laboratory/Medical/Dental Supplies Which Require Product Registration

Absorbent Cotton Cotton Buds Cosmetics Puffs Cotton Cotton Swabs Wooden Applicator Stick **Gauze** Elastic Bandage Bandage (Plaster of Paris) Rubber Elastic Bandage Synthetic Cast Padding Cervical Collar Cast (Orthoplast) Corset Cast Plaster Band-aid Plastic Strip Hypoallergenic Paper Tape Syringes Disposable Meedles Surgical Blade Surgical Gloves (Sterile) Sutures Infusion Set or Venoset Arterial Venous Fistula Needle Set Scalp Vein Transfusion Set Blood Transfusion Set Filter Set Exchange Transfusion Tray Spinal Anesthesia Tray Lumbar Puncture Tray Dental Filling Alloy Absorbable Hemostatic Felt (Collagen Fibric) Peritoneal Dialysis Administration Set Stonach bag Stonach Tube Water Bag Urine Collecting Bag Oxygen Mask Rectal Tube Nasal Oxygen Cannula Urethral Catheter Suction Catheter Oxygen Catheter Urinary Drainage Tube Feeding Tube Endotracheal Tube Nebulizer with Aerosol Mask **Humidifier Mask** Intrauterine Device (IUD) Condon Earpiercing Device Porcine Heart Valve Intraocular Lenses Hard and Soft Contact Lenses Disposable Skin Stapler Disposable Skin Staple Ligating Clip Device Skin Traction Kit Contamination Control Dry Mat Dental Floss Collagen Implant Flour Alloy Amalgam Periodontal Bone Grafting Implant Disposable Tissue Heasuring Device

Source : Committee on Suppliers' Accreditation, D O H

Table 7. Tariff Rates on Imported Medical Equipment, Instruments and Supplies 1981 to 1988, In Per Cent

•••	Description	1981	1982	1983	1984	1985	1986	1987	1988
1.	Medical, dental, surgical and veterinary instruments and appliances (including electro-medical apparatus and opthalmic instruments)								
	<ul><li>a. Electro-medical apparatus</li><li>b. Dental instruments and appliances</li><li>c. Others</li></ul>	10 10 10							
2.	Mechano-therapy appliances; massage apparatus; psychological aptitude-testing apparatus; artificial respiration, ozone therapy, oxygen therapy, aerosol therapy, or similar apparatus; breathing appliances (including gas masks & similar respirators)	10	10	10	10	10	10	10	10
3.	Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; hearing aids and other appliances which are worn, carried or implanted in the body to compensate for a defect/disability						·		
	a. Hearing aids b. Others	10 10							
4.	Apparatus based on the use of x-rays or of radiations from radioactive substances (including radiography and radio-therapy apparatus); x-ray generators; x-ray tubes; x-ray screens; x-ray high tension generators; x-ray control panels and desks; x-ray examination or treatment tables, chairs and the like	. 10	10	10	. 10	10	10	10	10
5.	Wadding, gauze, bandages and similar articles (for example, dressings, adhesive plasters, poultices), impregnated or coated with pharmaceutical substances or put up in retail packings for medical or surgical purposes	20	20	20	20	20	20	20	20
6.	Other pharmaceutical goods	1,0	10	10	10	10	10	10	10

Source : Tariff Commission

our local producers have no capabilities to produce are charged a lower rate than supplies where the industry has shown some potentials.

was gathered in the survey Philippine Hospital Association (PHA), national association of hospitals is currently lobbying for a policy of tariff-free importation for medical equipment and instruments. This proposed policy however is not intended to allow direct importation by Association members. The PHA is a nationwide association of hospitals, both government and private, in the country. Membership in the said organization is more or less compulsory in that no hospital will be given a permit to operate by the DOH without such membership.

A list of selected PHA member hospitals is presented as Exhibit IX.

# SECTION D - SIZE-OF-MARKET ESTIMATES

#### 1. Overall Framework

The demand for medical equipment and supplies is essentially a derived demand. Increased requirements for hospital/ medical care effectively hasten the at which equipment and instruments at the same time speeding the utilized, consumption rate of supplies. Simultaneously, a rise in demand for medical care improves the financial status of these health service units, things being equal, and makes them more able willing to upgrade existing facilities which are now depreciating at a faster rate due to more frequent utilization.

In the opposite case, depressed demand for medical care slows down the depreciation of equipment and instruments and the turnover rate of supplies and consummables. At the same time, weak demand hampers the profitability of existing health service units and makes them less able and willing to upgrade facilities, while the tight financial condition is likely to induce them to exercise prudence on supplies consumption.

In essence, the need for medical care can well be considered as one of the basic needs of man. In the same line that a nation has minimum requirements for food, clothing and shelter in order to survive, a minimum level of medical care is required to address man's basic right for health. No matter how poor an individual becomes, s/he has to seek medical care when ailing. If one's present economic circumstances do not afford him the services of a private health service unit, one goes to a public hospital or clinic.

It is basically in recognition of this minimum requirement for medical care that the government stands responsible to provide services through public hospitals, clinics and other health service units all over the country.

This minimum requirement may well be termed as the subsistence level of the demand for medical care (or SLD) which corresponds to that level of by a subsistence wage earner exerted or individual whose earnings are just enough to keep his muscles and bones together. If this same worker gets poorer by losing his job, his SLD is hardly affected. On the other hand, if he gets promoted such that his pay rises above the subsistence level, his SLD is likely to rise proportionately higher than the increase in his real income. He still has the option to go to a public hospital, but now he is more likely to prefer the services of a private health service unit.

Inasmuch as the demand for medical equipment supplies is a derived demand, there are, of course, factors which affect its link with the demand medical care. For instance, a rise in the SLD of the population due to some demographic changes may not necessarily entail a corresponding increase in number of government hospitals in the country or expansion of the bed capacity of existing units both. This is because the government operates within limited budget which it allocates to the various sectors of the economy on the basis of present and future (both near-term and distant) priorities. Also, some inherent characteristics of the market and the various players involved serve to inhibit the link between the two demand types such that changes in one may not be fully reflected in the other.

The above discussions set forth the assumptions that are to be considered in generating size-of-market forecast pertinent to the study, as follows:

- o the demand for medical equipment and supplies is directly proportional to the demand for medical care;
- o the degree of responsiveness of the former to changes in the latter varies from less than one (or less than unity) to greater than one (or higher than unity);

- the subsistence level of demand for medical care or SLD represents the sum of the demand exerted by that portion of the population living within or below the subsistence level or poverty line;
- o within the SLD, medical care behaves like a necessity item whose income elasticity of demand approaches zero; beyond the SLD, however, it behaves like a luxury item whose income elasticity of demand is greater than unity;
- the extent of government involvement in the medical care business approximates the SLD; this implies that government health service units are set up basically to serve the medical care needs of those living within the subsistence level or poverty line; and
- o corollary to the above, private health service units are intended to serve the medical care needs of that sector of the population over and above the poverty level.

These assumptions serve as guide in developing market forecasts within the foreseeable future term.

# 2. Current Size of the Market

Exhibit X presents the details of computations used in generating estimates for the current size of the market broken down into main product divisions and groups and specific product types, while Table 8 in the page following summarizes the results.

As reflected in Table 8, the market now consumes about FOB US\$ 28 million worth of medical equipment and supplies annually. Medical supplies make up the bulk or 52 % of total consumption, followed closely by equipment and instruments with 46 %. Furniture accounts for the smallest share of only 2 %.

Table 8. Current Size of the Philippine Market for Medical Equipment and Supplies By Main Product Divisions, By Source and By End -User, In Thousand US Dollars

				Sou				
A.		By Main Product Divisions	Local	1 Share	Imported	\$ Share	TOTAL	\$ Share
	1.	Equipment and Instruments	75.2	1.1	12,716.6	60.6	12,791.8	45.7
	2.	Supplies	6,909.1	98.4	7,709.3	36.7	14,618.4	52.2
	3.	Furniture			562.9		600.5	2.1
		T O T A L	7,021.9	100.0		100.0		100.0
		Per Cent Share	25.1		74.9		100.0	
				\$ o u	rce			
₿.		By End-User	Local	\$ Share	Imported	% Share	TOTAL	<b>\$</b> Share
	1.	Hospitals	6,319.7	90.0	18,889.9	90.0	25,209.6	90.0
	2.	Clinics	491.5	7.0	1,469.2	7.0	1,960.7	7.0
	3.	Others	210.7	3.0		3:0	840.4	3.0
		TOTAL	7,021.9	100.0	20,988.8		28,010.7	100.0
		Per Cent Share	25.1		74.9		100.0	

It is estimated that around 90 % of total consumption are accounted for by hospitals. The remaining 10 % are absorbed by clinics (7 %) and other end-users (3 %).

The market is about 75 % dependent on foreign sources of medical equipment and supplies. Local suppliers provide only 25 % of total requirements.

Equipment and instruments account for the biggest component (60.6 %) of the market's total requirements for imported items. While supplies make up a significant share of 36.7%, furniture accounts for only 2.7%. Consumption of locally manufactured items consists mostly of supplies which account for about 97.2%. Furniture is next with 2.7% while equipment and instruments account for the smallest share of only 0.1%.

Among the six (6) product groups currently served by . equipment exporters of medical foreign instruments, the first group which embraces nonveterinary and medical, surgical electrical, appliances instruments (opthalmic (included) and emerged the biggest segment. Medical and surgical equipment and instruments dominate this group, while veterinary instruments and appliances account for a very minimal share. This group does not cover dental instruments and appliances which emerged the third biggest component, next to electromedical radiological apparatus.

Wadding and similar articles dominated the population of imported medical supplies, accounting for almost 50 % of the total. A distant second is the group described as "Other pharmaceutical goods", among which the biggest item is "Sterile surgical catgut and similar suture materials".

Medical, surgical, dental and veterinary furniture that are made of metal almost singly represent the population of imported furniture currently being absorbed by the Philippine market. While furniture made of plastic registered some figures, the market apparently does not absorb imported medical furniture made of wood.

Consumption of locally manufactured equipment and instruments are accounted largely by two (2) items, namely "Applicators and tounge depressors" and "Artificial incubators for babies" which are relatively simple or low-technology items.

The biggest single item among the locally manufactured supplies now being used by health service units in the country is "Sterile absorbent cotton". This was followed by " Adhesive plasters for surgical or medical purposes" and "Artificial teeth of all materials".

Finally, the reason why the market does not make use of imported medical wooden furniture is that this item is sufficiently provided for by local manufacturers.

The above analyses reflect the overall profile of the market, as follows:

- it is heavily dependent on imported items, particularly in its requirements for equipment and instruments;
- o its dependence on the local manufacturers is concentrated largely on medical supplies;
- o its consumption of medical equipment and supplies is heavily concentrated on hospitals, among other end-users.
- o hospitals (government and private) absorb the bulk or 90 % of the market's total consumption of medical equipment and supplies; and
- o the market relies on both local and foreign sources of medical furniture: local sources provide wooden furniture while foreign sources provide those made of metals and other materials except wood.

#### 3. Demand Parameters

#### a. Population Growth

Perhaps the most obvious impact of population growth on the demand for medical care is that it literally increases the number of persons that the entire health care system serves. The Philippine population is currently placed at over 57 million and is expected to grow by 2.4 % annually from 1988 to 1992. As shown in Table 9 next page, more than 50 % of the population are aged below 20 years. A young population such as this indicates that a larger segment is dependent upon the income of a smaller and older group for their food, clothing, shelter and medical care expenditures, resulting in a very thinly spread average family income.

Of the thirteen (13) regions in the country, the National Capital Region (NCR) or Metro Manila and Regions 3, 4, 6 and 7 are among the most populous. Of these regions, Metro Manila has the highest population density. This explains the concentration of health service units in this region relative to other regions in the country. In general, urban centers are more densely populated than rural areas.

#### b. Number and Bed Capacity of Hospitals

The government considers this parameter as the most crucial yardstick for determining the adequacy of the present health care system in meeting the nation's medical care requirements. Development plans formulated by the National Economic Development Authority (NEDA) and the DOH for the health sector placed emphasis on the attainment of targets for hospital bed capacity requirements of the population.

Table 10 presents the number and bed capacity of both government and private hospitals in the country from 1980 to 1987.

Table 9. Philippine Population: Actual and Projected, 1980 to 1987 By Region In Thousand Persons

			Projections								C & R (%)	C = 0 (1)			
Region	Actual 1980	1981	1987	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1980-1992	
NCR	5,970	6,155	4,343	4,540	6,739	6,942	7,147	7,354	7,561	1,768	7,974	8,180	8,380	2.9	2.6
1	3,543	3,611	3,682	3,754	3,824	3,903	3,978	4,056	4,134	4,212	4,292	4,370	4,450	1.9	1.9
2	2,221	2,283	2,340	2,399	2,459	2,521	2,584	2,648	2,713	2,178	2,845	2,910	2,980	2.5	2.4
3	4,827	4,947	5,070	5,196	5,324	5,456	5,590	5,726	5,863	6,002	6,142	6,280	6,420	2.4	2.3
4	6,155	6,333	4,514	6,703	6,894	7,089	-1,287	7,490	1,692	1,197	8,104	8,310	8,520	2.1	2.4
5	3,489	3,572	3,658	3,744	3,833	3,921	4,012	4,104	4,198	4,293	4,389	4,480	4,580	2.3	1.1
6	4,538	4,645	4,755	4,866	4,978	5,092	5,207	2,333	5,439	5,466	5,672	5,790	5,910	2.2	2.1
1	3,794	3,873	3,951	4,031	4,113	4,195	4,278	4,362	4,447	4,531	4,616	4,700	4,790	2.0	1.9
8	2,805	2,857	2,909	2,944	3,018	3,073	3,128	3,185	3,243	3,301	3,341	3,420	3,480	1.8	1.8
,	2,547	2,608	2,671	2,734	2,198	2,863	2,928	2,994	3,061	3,128	3,195	3,260	3,330	2.3	2.1
10	2,773	2,851	2,931	3,012	3,095	3,178	3,264	3,350	3,438	3,526	3,616	3,710	3,800	2.7	2.5
11	3,368	3,459	3,551	3,645	3,740	3,836	3,934	4,032	4,132	4,232	4,334	4,440	4,540	2.5	2.4
12	2,278	2,340	2,403	2,467	2,532	2,598	2,665	2,733	2,802	2,872	2,943	3,010	3,090	2.6	2.5
PHILS.	48,316	49,534	50,780	52,055	53,347	54,667	56,002	51,357	58,723	59,906	61,483	67,860	64,270	2.4	2.3

Percent Distribution By Age Below 20 years old = 53.0 20 to 44 years old = 33.0 45 years old and over = 14.0

Table 10. Number and Bed Capacity of Government and Private Hospitals in the Philippines 1980 to 1987

	Numb	er of Hospit	als		Bed Capacit	y	Average Bed Capacity Per Hospital			
Year	Private	Government	Total	Private	Government	Total	Private	Government	Total	
1980	1,112	488	1,600	38,279	49,70B	87,987	34	102	55	
1981	1,112	487	1,599	32,714	32,090	64,804	29	66 .	41	
1982	1,194	519.	1,713	40,051	48,199	88,250	34	93	52	
1983	1,179	526	1,705	38,955	46,095	85,050	33	88	50	
1984	1,127	612	1,739	42,418	47,861	90,279	38	78	52	
1985	1,190	624	1,814	41,613	43,395	85,008	35	70	47	
1986	1,229	617	1,846	40,265	48,906	89,171	33	79	48	
1987	1,190	624	1,814	43,867	53,184	97,051	37	85	54	
CGR (%)	1.0	3.6	1.8	2.0	1.0	1.4	1.0	-2.5	-0.4	
% Share in 1987	65.6	34.4	100.0	45.2	54.8	100.0				

The total number of hospitals in the country has been increasing slightly at an annual compound rate of 1.8 % over the eight (8)-year period. Although outnumbered almost two-to-one, the population of government hospitals is growing faster at an annual compound rate of 3.6 % as compared to private hospitals' 1.0 %. While the former registered an increase of 1.1 % from 1986 to 1987, the latter actually suffered a 3.2 % decline over the same period. Despite this, however, private hospitals still comprised 65.6 % of the total number of hospitals in 1987.

also minimal Total bed capacity showed improvements from 1980 to 1987, growing by only 1.4 % annually. Private hospitals' bed capacity grew by 2.0 % as compared to public hospitals' 1.0 %. The latter, however, continues represent the bulk of total bed capacity, despite the fact that its population is that of private hospitals. This reflected in the computed average bed capacity hospital which shows that government hospitals are relatively larger in terms of bed capacity.

While the total number of hospitals declined from 1,846 in 1986 to 1,814 in 1987, total bed capacity during these years actually increased by about 7,880 beds or a growth of about 8.8 %. The bulk of such growth came from government hospitals. This underscores government efforts to maintain bed capacity in the country to keep up with increases in population. Bed capacity, however, only managed to grow by 1.4 % annually from 1980 to 1987 which is below the expected annual population growth rate of 2.4 % during the same period.

#### c. Income Indicators

The demand for medical care is a direct function of income. A rise in real per capita income, for instance, translates to a corresponding increase in real per capita expenditures (other factors held constant), one component of which is medical care. As pointed out earlier, income elasticity of the demand for medical care varies at different income levels:

Table 11 shows how the country's real Gross National Product (GNP) and real per capita income behaved over the last eight (8) years, or from 1980 to 1987.

Real GNP plummeted to its lowest level in 1985 before showing signs of recovery in 1986 and 1987. It took a year before real per capita income could adjust accordingly. Despite the slight improvement in real GNP in 1986, real per capita income was at its lowest during this year but rebounded to a 3.1 % growth in 1987. This growth was brought about mainly by a rising demand for labor and better real wages coupled with a controlled inflation rate that year.

Despite the 5.6 % growth in labor force from 1986 to 1987, the employment rate improved from 88.2 % to 88.8 %. This is reflected in the 0.6 % decline in the unemployment rate during this period. Labor underutilization, as measured by the underemployment rate, declined significantly from 35.6 % in 1986 to 33.6 % in 1987.

Meanwhile, real daily wage rates also improved during this period, especially for non-agricultural workers in Metro Manila.

These developments, however, cannot be expected to affect significantly the current income distribution structure in the country. Although the alleviation of poverty is one concern of the present government, around 69 % of the total number of Filipino families in the country still live below the poverty line (Table 12). Based on current economic conditions, the government placed the subsistence or poverty income level for the average Filipino family size of five persons (parents included) at \$2,500 a month or F 30,000 per annum. This income level will be just enough to provide the family its basic

Table 11. Gross National Product (GNP), Population and Per Capita Income of the Philippines 1980 to 1987

	1980	1981	1982	1983	i 984	1985	1986	1987
6 M P (In Million Pesos at Constant Prices of 1972)	92,629	96,041	97,539	98,619	91,644	87,766	89,611	94,680
% Change		3.7	1.6	1.1	-7.1	-4.2	2.1	5.7
Population (In Million Persons)	48.3	49.5	50.8	52.1	53.3	54.7	56.0	57.4
% Change		2.5	2.6	2.6	2.3	2.6	2.4	2.5
Real Per Capita Income (In Pesos)	1,918	1,940	1,920	1,893	1,719	1,604	1,600	1,649
\$ Change		1.2	-1.0	-1.4	-9.2	-6.7	-0.3	3.1
· C P I (All Items, 1978=100)	138.9	157.1	173.2	190.5	286.4	352.6	355.3	368.7
Inflation Rate (%)		13.1	10.2	10.0	50.3	23.1	0.8	3.8

Sources of data: NEDA, NSO

Table 12. Total Number of Families, Total and Average Family Income by Income Class, Philippines, 1985

			Incom		
Income class	Total number of familie (thousands	<b>\$</b> Share	Total (thousand pesos)	Annual Average (pesos)	Monthly Average (pesos)
Under P 6,000	375	•••••	15898.6861844 1,699,850	4,523	377
6,000 - 9,999	1,117		9,202,175	8,240	687
10,000 - 14,999	1,778		22,207,257	12,490	1,041
15,000 - 19,999	1,540		26,769,814	17,385	1,449
20,000 - 29,999	1,936		47,373,441	24,465	2,039
Sub-total	6,746	68.5	107,252,537	15,899	1,325
30,000 - 49,000	1,086		37,402,390	34,452	2,871
40,000 - 59,999	1,044		50,498,966	48,393	4,033
60,000 - 99,999	626		47,225,272	75,471	6,289
100,000 and over	346		63,396,111	183,439	15,287
TOTAL	9,848	100.0	305,775,276	31,049	2,587

Sources of Data: NEDA, NSO

needs for food, clothing, shelter and medical care, among others.

As shown in Table 12, each of the families living below the poverty line receives average monthly income of only P 1,325 which way below the F 2,500 subsistence level. Under this income distribution structure, increases in real per capita income can only be expected create slight changes in the demand for medical care because majority of the people still lack the more basic necessities of life such as food, clothing and shelter. Further, people under conditions of poverty are likely to be more dependent on government for their medical the demand is that likely to concentrated on public health service units, especially those offering services for free such as rural health centers and barangay health stations. This is precisely the reason why we often see government hospitals congested with patients.

It is, therefore, not surprising that family expenditure for medical care in the country has remained one of the smallest components of total expenditures of the average Filipino family since the 1960's, showing very minimal improvements over time (Table 13).

#### 4. Potential Demand-Supply Gap in the Market

Given the country's present income distribution structure, population growth becomes the most crucial factor in determining the nation's minimum requirements for medical care. Population growth actually raises this minimum requirement as the government is pressured to put up additional health service units or expand the capacity of existing ones or both.

The government, however, operates within a limited budget and is constrained by its present priorities. As shown in Table 14 in the page following, education, culture and manpower development remain the top priority of the government among other social services. Budget

Table 13. Percentage Distribution of Total Family Expenditures
By Major Expenditure Group, Philippines: 1961, 1965, 1971 and 1985

Expenditure Group	1961	1965	1971	1985
Total family expenditures (in thousand pesos)	7,934,063	14,748,076	28,430,424	264,551,855
Percent	100.0	100.0	100.0	100.0
Food Food consumed at home Cereals and cereal	53.8 51.6	53.7 50.8	53.7 51	51.9 48.8
preparation Fish and marine products Meat, meat preparations,	20.2 10.5	21.1 9.3		18.5 7.9
dairy products and eggs Roots, tubers, fruits and	. 7.9	8.4	9.7	. 10.3
vegetables Miscellaneous	6.1	5.0 6.9	5.5 7.4	5.3 6.7
Food regularly consumed outside the home Alcoholic beverages Tobacco Housing Fuel, light and water	2.3 1.7 4.2 8.3	2.9 1.6 3.2 9.1 3.6	3.3	12.5
Household furnishings and equipment Household operations Clothing, footwear	2.1 2.6	2.5	2.3 2.4	1.9 2.4
and other wear Personal care and effects Transportation and	2.3	6.5 2.5	6.2 2.2	3.6 2.1
communication  Recreation Education Gifts and contributions Taxes Special occasions	2.3 1.8 3.1 0.9 0.4 2.3	2.6 1.8 3.5 0.9 0.6 2.7	2.9 1.8 3.7 0.6 0.3 2.5	4.4 0.4 3.5 1.0 1.0 2.2
Other expenditures	1.4	1.5	1.5	1.8

SOURCE: NEDA

Table 14. Budget Sectoral Allocation of Expenditures, 1988 and 1989
In Billion Pesos SECTOR/ Subsector 1989 1988 1. ECONOMIC SERVICES 35.6 44.7 Agriculture, Agrarian Reform and Natural Resources Trade, Tourism and Industry Power, Water, Transport and Communications Others 13.4 16.2 1.4 13.9 6.9 1.3 0 4.9 2. SOCIAL SERVICES 35.9 44.0 Education, Culture and Manpower Development 21.9 29.9 Health 6.0 7.3 Social Security, Labor and Employment Housing and Community Development ٥ 1.3 1.6 0.5 ٥ 0.4 Others 4.8 3. DEFENSE 16.8 20.8 Domestic Security 10.8 13.3 Peace and Order 6.0 7.5 4. GENERAL PUBLIC SERVICES 15.6 19.0 5. DEBT BURDEN 86.8 100.4 Interest Payments - On Domestic Debt - On Foreign Debt 32.6 23.2 13.3 19.2 Principal Amortization - On Domestic Debt - On Foreign Debt 15.7 18.7 24.3 22.0

SOURCE: Department of Budget and Management

6. NET LENDING

TOTAL

2.7

228.9

6.5

190.7

allocations for health services this year (1988) and next are primarily intended to maintain existing hospitals.

Government therefore cannot be expected to fully respond to pressures arising from population growth in so far as the provision of health services is concerned. This shortcoming is manifested clearly in the behavior of the combined bed capacity of public and private hospitals whose improvements in the last two (2) years lagged behind the expected population growth rate during the same period.

Medium-term development plans for the health sector formulated by NEDA and DOH placed the hospital bed capacity requirement of the 1987 population level of 57.4 million at around 101,000 beds or a target bed-to-population ratio of 1:570. However, the combined bed capacity of public and private hospitals in the country reached only 97,051 beds during the year, for a deficit of around 4,000 beds.

This 4,000-bed deficit translates to a potential demand-supply gap in the market last year equivalent to over a million FOB US dollar worth of medical equipment and supplies. Around 75 % or US \$772,000 of this gap is accounted for by imported items the bulk of which or 61 % consists of equipment and instruments. Table 15 in the page following shows the details of computation used in arriving at these demand-supply gap estimate.

In essence, this demand-supply gap represents the value of medical equipment and supplies that could have been consumed by the market last year (1987) had the capacity of the local health care system been adequate to serve the minimum medical care requirements of the population. Given the high incidence of poverty in the country, this gap constitutes a pressure that is focused more on the government than on the private sector.

Table 15. Potential Demand-Supply Gap in the Market By Main Product Divisions and By Source Details of Computation

I.	Population Level (million persons)	57.4
11.	Hospital Bed Requirement (thousand beds)	101
	Less: Existing Bed Capacity (thousand beds)	97.1
	Demand Gap (thousand beds)	3.9
111.	Total Consumption of Medical Equipment and Supplies (US\$000)	28,010.7
	Percent Consumed By Hospitals	90.0
	Total Hospital Consumption (US\$000)	25,209.6
	Number of Hospitals in the Country	1,814
	Consumption Per Hospital (US\$000)	13.9
IV.	Average Bed Capacity Per Hospital	54
	Demand Gap (Number of Hospitals)	74
٧.	Demand Gap (Consumption in US\$000)	1,029.6
	- Local (25%)	257.4
	- Imported (75%)	172.2
VI.	Demand Gap (Consumption of Imported Items in US\$000)	772.2
	- Equipment and Instruments (61%)	471.0
	- Supplies (37%)	285.7
	- Furniture (2%)	15.5

#### SECTION E - CONCLUSIONS

#### 1. Growth Prospects

From the foregoing discussions, it is evident for the Philippine market for medical prospects equipment and supplies to grow within foreseeable future term depend much on the overall of the performance economy and consequent improvements in the national income distribution structure. While developments in recent years (1986 to 1987) appeared favorable, the market cannot be expected to grow much within the short-term (1988) to 1990) during which improvements in the demand for medical care will depend mainly on population growth. Demand pressures are expected to come mainly from public health service units within this period the government responds to the rising medical care requirements of the populace.

The private sector is likely to grow only slightly in the short-term as this period will not be long enough for the economy to haul the majority of the Filipino people beyond the poverty line. Nevertheless, improvements in real income in recent years may well be sustained within this timeframe as the country is expected to remain politically stable at least up to 1992 when uncertainties necessarily attend the holding of the presidential elections.

Improvements in income will therefore be the main driving force toward increasing demand for medical care during the medium-term. As such, demand pressures are expected to come mainly from private health service units. At first, existing hospitals are likely to expand their respective capacities to the maximum after which new entrants into the market will follow in response to the rising demand. Medical examination or laboratory diagnostic centers will gobble a significant share of the market during this period as the provision of medical services to employees becomes a standard among firms.

Meanwhile, the sustained improvements in income will make the local populace more selective in deciding which hospital or clinic to go to. This change in attitude is likely to promote competition in the business such that private hospitals and clinics are compelled to constantly upgrade facilities to remain competitive. Further, patient traffic in public health service units is expected to loosen up toward the latter part of this period.

The long-term or 1995 to 2000 is seen as a period in which the market is growing fastest toward its maturity. Assuming a continued rise in real income, majority of the Filipino people should have hurdled the poverty level by this time such that the elasticity of the demand for medical care is highest at this stage. Private health service units will dominate within this timeframe both in terms of number and capacity while government involvement in the market is expected to be at a minimum.

Within these timeframes, the market will continue to be heavily dependent on imported items, especially equipment and instruments. Because of the absence of a well-developed backward linkage such as metalworking industry in the country and the high cost of generating technology, it will be for the market to remain dependent economical foreign technology. Although the improving business could possibly environment encourage establishment of production tie-ups between and foreign partners, this does not entirely cut-off the market's dependence on foreign sources because firms can compete via this joint-venture arrangements, just like what multinational firms are doing in the drug business in the country today. outputs of these companies can well be considered as still imported commodities.

The share of imported medical supplies in the market is expected to gradually shrink throughout the forecast period as local capabilities to manufacture these items improve over time. Moreover, some multinational firms in the pharmaceutical industry are found to be diversifying in the manufacture of such items like sterilized cotton and other hygienic

products. Because of the hugeness of these firms, their capabilities to diversify into such medical supplies as wadding, gauzes and surgical gloves cannot be put into question.

Future requirements of the market for wooden medical furniture will be completely provided by local sources. For metal or plastic-based medical furniture, however, health service units will still make use of imported ones but in decreasing proportion to local counterparts. This is because the technological and capital requirements for manufacturing these items are relatively low such that local producers are bound to come up with comparable imitations in due time.

#### 2. Size-of-Market Forecasts

Based on the above considerations, size-of-themarket forecasts were generated using the following basic assumptions:

- o the demand for medical equipment and supplies is directly proportional to the demand for medical care services;
- o real per capita income constantly improves along side population growth throughout the forecast period;
- o in the short-term, rising real per capita income has negligible effect on the demand for medical care such that the population growth rate of of 2.4 % during this period approximates the growth rate in the demand for medical care; however, the latter is estimated to be lower (only 2.0 %) because health services is not among the more pressing and immediate concerns of the government as reflected in its 1988 and 1989 budgets;
- o in the medium-term, the market is projected to grow at a rate slightly faster (at 3.0 %) than the population growth rate because the government can no longer afford to deprioritize

health services by this time; meanwhile, the positive effect of the continued rise in real per capita income on the demand for medical care is slowly being felt by the private health service units at this stage;

o the long-term is viewed as a timeframe when the average real per capita income has outpaced the poverty income level such that the market grows at a much faster rate (5.0 %) during this period:

Exhibit XI presents the size-of-market forecasts for the three (3) timeframes considered or from 1988 to 2000. Table 16 in the page following summarizes the projected figures.

# 3. Major Issues Affecting Market Access

Our research of the Philippine medical equipment and supplies industry revealed a number of major issues crucial to market access. These are highlighted below to serve as relevant inputs to the marketing strategies to be employed by prospective Canadian exporters/medical equipment manufacturers in their efforts to make headway in the Philippine market.

o Channel of Distribution - Imported medical equipment and supplies are normally marketed by local middlemen, usually a local agent who may represent a number of manufacturers. For sales outside of the urban centers (specifically Metro Manila), more distributors/ channels are tapped.

equipment manufacturers who are serious in For penetrating the local market (as well as those whose contracts involve high dollar values), they are well advised to establish a formal long-term relationship with a reputable local (distributor), or better set up a local subsidiary. By establishing a local office, suppliers may demonstrate to clients an active interest in the market and a willingness to provide a continuous and consistently high standard service, especially after sales. Tighter control and better technical marketing

Table 16. Size-of-Market Forecasts From 1988 to 2000, By Main Product Division and By Source Value in Thousand US Dollars

Division / Source	1988	\$ Share	1990	\$ Share	1995	\$ Share	2000	\$ Share
A. Equipment and Instruments	13,047.6	100.0	13,574.8	100.0	15,736.9	100.0	20,084.7	100.0
Imported	12,969.3	99.4	13,493.4	99.4	15,642.5	99.4	19,964.2	99.4
Local	78.3	0.6	81.4	0.6	94.4	0.6	120.5	0.6
8. Supplies	14,910.8	100.0	15,513.2	100.0	17,984.0	100.0	22,952.7	100.0
Imported	7,753.6	52.0	7,756.6	<b>5</b> 0.0	8,092.8	45.0	9.181.1	40:0
Local	7,157.2	48.0	7,,756.6	50.0	9,891.2	55.0	13,771.6	60.0
C. Furniture	612.5	100.0	637.3	100.0	738.8	100.0	942.9	100.0
Imported	. 569.6	93.0	579.9	91.0	635.4	86.0	763.7	81.0
Local	42.9	7.0	57.4	9.0	103.4	14.0	179.2	19.0
T O T A L	28,570.9	100.0	29,725.3	100.0	34,459.7	100.0	43,980.3	100.0
Imported	21,292.6	74.5	21,829.9	73.4	24,370.6	70.7	29,909.0	6B.0
Local	7,278.3	25.5	7,895.4	26.6	10,089.1	29.3	14.071.3	32.0

representation will also be added to benefit those with local offices.

o <u>Importance of Price and Payment/ Credit Terms</u> - The Philippine is a developing economy and as should have been made clear by the earier discussions, its health care and support services industry lags far behind those of the developed nations. The economic condition has forced many end-user sectors, both government and private, to place greater importance on price in the overall purchase decision. Significant savings by way of improved performance, reliability and durability must be evident for any substantially higher price differences to be paid by end users.

In addition, all government purchases involve tenders/ bids. The standard procedure is that a contractor or bidder whose tender satisfies the technical specifications (including track record) and offers the lowest price is awarded the contract. Hence, price is important government purchase decision.

For transactions involving large-volume equipment, it is worthwhile for foreign suppliers to introduce innovative financing or credit arrangements.

In the private end-user sector perhaps it is time to consider equipment leasing.

Advertising and Sales Promotion Techniques - It is our understanding that very little advertising and promotional activities are being undertaken. It is very likely that suppliers (or their agents) primarily utilize direct sales representation when marketing high value equipment to end users.

Locally published technical industry-specific brochures are very few in number. Marketing efforts using local brochures, trade catalogues and journals should be thoroughly assessed. Nevertheless, medical advertising (with the use of newspapers, tabloids or similar publications) could be employed to a limited degree.

o <u>Technical Requirements</u> - The electrical power supply characteristics in most areas of the Philippines are 220/110 volts, and 3-phase, 460/320 volt, 60-cylcle outlets are common. The bulk of the electricity is supplied as alternating current with some isolated pockets of direct current supply.

In the Philippines, the metric system of weights and measures is the statutory standard.

EXHIBITS

#### Typical Composition or Product Mix of the Philippine Market for Medical Equipment & Supplies ......

Typ By	ical Composition or Product Mix of the Area or Field of Hospital Service
<b>A.</b>	AMESTHESIOLOGY & PULHOMARY MEDICINE DEVICES AND SUPPLIES 1. Calibrators, Meters & Graphs 2. Gas Administration Devices 3. Humidifiers 4. Monitors, Electrodes & Rel.Devices 5. Mebulizers 6. Oxygen Chambers 7. Restraints 8. Suction and Drainage Devices 9. Ventilation Devices
8.	CARDIOVASCULAR DEVICES AND SUPPLIES
	1. Blood Pressure Measurement 2. Catherers and Camulae 3. Monitors, Recorders, Transducers, Detectors, Meters, Alarms 4. Prostheses & Reconstruction Mat. 5. Resuscitation Devices
<b>C</b> .	CHEMISTRY DEVICES AND SUPPLIES
	1. Enzyme Test Systems 2. Gen. Chemistry Test Systems 3. General Purpose tab. Instruments, Equipment, Supplies 4. Heters 5. Protein Test Systems
٥.	DENTAL DEVICES AND SUPPLIES
	Dental/ X-ray Equipment     Drill and Related Devices     Furniture     Hand Instruments

C.	CHEMISTRY DEVICES AND SUPPLIES
	1. Enzyme Test Systems 2. Gen. Chemistry Test Systems 3. General Purpose tab. Instruments, Equipment, Supplies
	4. Heters 5. Protein Test Systems
0.	DENTAL DEVICES AND SUPPLIES
	Dental/ X-ray Equipment     Drill and Related Devices     Furniture     Mand Instruments
	5. Kits 6. Lighting Equipment 7. Oral Hygiene Products 8. Orthodentic Devices
	B. Urthodentic Devices 9. Powered Cutting & Cleaning Devices 10.Sterilizers and Cleaners
	11. Suction/ Aspirator
€.	EAR/ MOSE THROAT DEVICES AND SUPPLIES 1. Diagnostic Devices
	2. Therapeutic Devices 3. Tubes
f.	GASTROENTEROLOGY AND UROLOGY DEVICES & SUPPLIES
	1. Catherers, Cannulae, Tubes & Connectors
	2. Dialysis Devices 3. Incontinence Devices

€.	HEMATOLOGY DEVICES
	<ol> <li>InstrumentS, Equip't &amp; Supplies</li> <li>Solutions, Reagents, Controls &amp; Test Kits, Stains</li> </ol>
H.	MICROBIOLOGY DEVICES
	Analyzers, Antibodies, Antigens     Antisera, Culture Media     General Laboratory Equipment     and Supplies     Identification, Screening     Fest Kits & Reagents
I.	DEVICES AMD SUPPLIES  1. Accessories and furnishings 2. Analyzers 3. Bathroom furnishings 4. Cleaning/ Sterilizing Devices 5. Communication Devices 6. Dressings 7. Enema Devices 8. Exam/treatment/procedure Devices 9. Food Handling Devices 10. General Lab Devices 11. General Purpose furniture 12. Hospital Linens/ Textiles 13. Injection Devices 14. Instruments 15. Irrigation and Drainage 16. Isolation & Air Handling Devices 17. Laundry Devices 18. Medication Dispensing Devices 19. Mursing Station Administration 20. Office Equipment and Supplies 21. Operating Room Devices 22. Patient Room Devices 23. Repairs and Maintenance 24. Respiratory Devices 25. Self-Help Devices 26. Services 27. Shipping, Packaging and Labels 28. Skin Care/ Treatment 29. Solutions 30. Specimen Collection
	31.Teaching Devices 32.Transportation of Materials 33.Transporation of Patients

2. Solutions, Reagents, Controls & Test Kits, Stains
MICROBIOLOGY DEVICES
Analyzers, Antibodies, Antigens     Antisera, Culture Media     General Laboratory Equipment     and Supplies     Identification, Screening     Fest Kits & Reagents
GENERAL HOSPITAL AND PERSONAL USE DEVICES AND SUPPLIES 1. Accessories and Furnishings 2. Analyzers
Bathroom furnishings     Cleaning/ Sterilizing Devices     Communication Devices     Dressings     Enema Devices     Kamp/Treatment/Procedure Devices     Camp Control Control Control
10.General Lab Devices
11.General Purpose Furniture 12.Mospital Linens/ Textiles 13.Injection Devices 14.Instruments 15.Irrigation and Drainage
16. Isolation & Air Handling Devices 17.Laundry Devices 18. Medication Dispensing Devices 19. Nursing Station Administration
20.Office Equipment and Supplies 21.Operating Room Devices 22.Patient Room Devices 23.Repairs and Maintenance 24.Respiratory Devices
25.Self-Help Devices 26.Services 27.Shipping, Packaging and Labels 28.Skin Care/ Treatment 29.Solutions
29.Solutions 30.Specimen Collection 31.Teaching Devices 32.Transportation of Materials 33.Transporation of Patients
34. Tubing 35. Vital Signs Devices 36. Maste Management Devices

	2. Monitors
K.	OBSIETRICAL AND GYMECOLOGICAL DEVICES AND SUPPLIES 1. Instruments and Sterilizers 2. Kits and Tests 3. Monitors, Recorders, Transducers and Electronics 4. Mursing Devices 5. Pads and Belts 6. Prosthetic Devices
ι.	OPTHALMIC DEVICES AND SUPPLIES
	1. Dressings/ Covers 2. Instruments 3. Therapeutic Devices
M.	ORTHOPEDIC DEVICES AND SUPPLIES
	Cast Related Devices     Diagnostic Devices     Support and Traction Devices     Support and Supplies
Ħ.	PATHOLOGY DEVICES
	Autopsy Room Equip't & Supplies     Cell and Tissue Culture Products     Pathology Equipment, Instrumentation and Supplies     Specimen Preparation Reagents
0.	PHYSICAL MEDICINE DEVICES
	1. Baths/Heat & Cold Application Devices 2. Diagnostic Devices 3. Exercisers 4. Furniture 5. Orthotics 6. Prosthetics and External Liab Components 7. Self-Help Devices 8. Supports 9. Therapeutic Devices 10. Traction Devices 11. Malking Aids
•	12.Wheelchairs and Transfer Equipment

J. NEUROLOGY DEVICES AND SUPPLIES

1. Catherers

۶.	RADIOLOGY DEVICES
	1. Contract Media 2. Film and Film Hand-
	1. Contract Media 2. Film and Film Hand- ling Devices 3. Radiographic/ Flou- roscopic devices 4. Radiotherapy Devices 5. Ultrasonic imaging
	4. Radiotherapy Devices 5. Ultrasonic Imaging
Q.	SURGERY DEVICES
	1. Catherers, Cannulae and Tubing 2. Dressings, Sponges
	<ol> <li>Dressings, Sponges and Bags</li> <li>Electrical Devices</li> </ol>
	4. Intection and Hazard
	Control 5. Instruments and Jars 6. Operating Room Cloth
	6. Operating Room Cloth 4 Surgical Drapes 7. Operating Room Furni 8 ture Furnishings
	& ture furnishings 8. Sutures and Closures
R.	TOXICOLOGY DEVICES
	1. Radioimmunoassay Tes Systems
	2. Toxicology Instrumen Equipment (excluding Chromatography)
<b>S</b> .	OTHERS
	1. Population Control
	Population Control     Devices & Supplies     Veterinary Devices     and Supplies     Mental Health Care
	3. Mental Health Care Devices & Supplies

4. Instruments 5. Meters

#### PSCC Product Categories Found Applicable to Medical Equipment and Supplies

6. Mobile radiological units (785.23-00)

#### DIVISION / GROUP / COMMODITY A. EQUIPMENT & INSTRUMENTS 1. Medical, surgical and veterinary instruments (including opthalmic instruments) and appliances (except electro-medical apparatus); parts thereof Optical examining and diagnostic instruments, apparatus and appliances (opthalmoscope, retinoscope, etc.), nes Applicators and tounge depressors 872.02-01 872.02-03 872.02-04 872.02-05 Hypodermic needles hypoderaic needies Brushes of a kind specialized for medical, surgical or veterinary purposes Other medical, surgical and veterinary instruments and appliances, nes Parts of items falling under this group 872.02-09 872.02-02 2. Dental instruments and appliances Brushes specially designed for use with a dental drill engine Other dental instruments and appliances 872.01-02 3. Mechano-therapy appliances; massage appparatus; artificial respiration, ozone/oxygen/aerosol therapy or similar apparatus; breathing appliancess Therapeutical apparatus 872.03-03 Massage apparatus 872.03-04 Breathing appliances Parts and accessories of instruments and appliances falling under this group 872.03-05 4. Electric apparatus for medical purposes and radiological apparatus 774.11-00 Electrocardiographs 774.12-00 Artificial incubators for babies 774.22-00 X-ray apparatus and apparatus based on the use of radiations from radioactive substances 774.21-00 X-ray dark room construction materials 774.23-00 Other electric apparatus for medical purposes and radiological apparatus, nes 5. Clinical thermometers (874.54-01)

#### 8. SUPPLIES

 Madding/gauze/bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packing for medical or surgical purposes, nes

```
541.91-01
541.91-03
541.91-03
541.91-03
541.91-04
541.91-05
541.91-05
541.91-06
541.91-07
541.91-08

Wadding (excluding absorbent cotton, etc., bleached or dyed or otherwise finished), gauze, bandages & similar articles, medicated or put up in retail packing for medical or surgical purposes, unmedicated (excluding cotton gauze) and bandages, sterilized or put up in retail packing for medical or surgical purposes, unmedicated (excluding cotton gauze) and bandages, sterilized or put up in retail packing for medical or surgical purposes, unmedicated (excluding cotton gauze) and bandages are placed or surgical purposes.

Sterile absorbent cotton
Flaster-coated fracture bandages
Cotton specialties, sterile or non-sterile (Including cotton-tipped applicators, cotton pallets, non-absorbent cotton, etc.)

Sterile absorbent cotton
Flaster-coated fracture bandages
Cotton specialties, sterile or non-sterile (Including cotton-tipped applicators, cotton pallets, non-absorbent cotton, etc.)
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2. Other pharmaceutical goods

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541.99-01 Sterile surgical catgut and similar suture materials
541.99-02 Sterile laminaria and laminaria tents
541.99-03 Sterile absorbable surgical hemostatics
541.99-04 Opacifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to the patient
541.99-05 Shoot grouping reagents
541.99-06 Dental cement and other dental fillings
541.99-07 First-aid boxes and kits
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3. Laboratory, hygienic and pharmaceutical glassware, whether or not graduated or calibrated; glass ampoules

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665.81-01 Ampoules
665.81-02 Flasks
665.81-09 Other laboratory, medical, surgical, dental and hygienic glassware, nes
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4. Hygienic and pharmaceutical articles (including teats), of unhardened vulcanized rubber, with or without fittings of unhardened rubber

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628.10-01 Rubber bags for ice, hot water and oxygen
628.10-02 Rubber droppers
628.10-03 Bottle nipples, of unhardened vulcanized rubber
628.10-04 Rubber syringes and bulbs thereof
628.10-09 Other hygienic, endical or surgical articles of unhardened vulcanized rubber, nes
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5. Orthopedic appliances, surgical belts, trusses and the like; splints and other fracture appliances; artificial limbs, eyes, teeth and other artificial parts of the body; appliances which are worn or carried in the body to compensate for a defect or disability (except hearing aids)

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899.62-01 Artificial teeth of all materials
899.62-03 Artificial dentures and bridges of all materials
899.62-03 Orthopedic shoes wholly or mainly of leather or composition leather
999.62-09 Other orthopedic appliances, artificial parts of the body, fracture appliances, pacemakers and other appliances to compensate for a defect or disability, nas
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Hygienic medical and surgical articles, whether enameled or not (bedpans, urinals, irrigators, instrument & catheter trays, pus & solution basin, infant baths, etc.)

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697.51-01 Hygienic, medical and surgical articles, of iron or steel 697.52-01 Hygienic, medical and surgical articles, of copper 697.53-01 Hygienic, medical and surgical articles, of aluminum
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7. Hearing aids (899.61-00)

EXHIBIT II Page 3 of 3

#### NITURE

al, dental, surgical and veterinary furniture (operating tables, hospital beds with mechanical fittings); dentist's and similar chairs elevating, rotaling or reclining movements; parts of the foregoing articles

- 1-02 1-03
- 1-04
- Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of wood Identifiable parts of medical, dental, surgical or veterinary furniture, of wood Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of metal Identifiable parts of medical, dental, surgical or veterinary furniture, of metal Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of plastic or other materials Identifiable parts of medical, dental, surgical or veterinary furniture, of plastic or other materials Dentist's and similar chairs with mechanical, elevating or reclining movements, of wood Identifiable parts of dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of metal or other materials except wood 1-05
- 1-09

id carriages, fitted with meahs of mechanical propulsion, whether motorized or not or otherwise mechanically propelled

Invalid carriages, fitted with means of mechanical propulsion, whether motorized or not Invalid carriages, other than motorized or not or otherwise mechanically propelled

Source of data: MSO

Directory of Fires Engaged in the Medical Equipment and Supplies Business as Compiled By The Department of Trade 3 Industry (DTI)_a_j

	COMPANY NAME	, AODRESS	TEL. HO.	TYPE OF BUSINESS	PRODUCT LINE (S)	CAPITALIZATION (Pasos)	CCHTACT PERSON
1.	Megachem Commercial	126-A Timog Ave., Bgy. Sacred Heart Quezon City, Metro Manila, Phils.	952-078	Wholesaler	Laboratory reagents, glasswares & equipment	20,000	Ha. Olga Casale
2.	Ultra Med Marketing Corp.	3 RJM Bldg., Timog Ave., Quezon City Metro Manila, Philippines	969-146	Wholesaler	Medical, dental & hospital supplies, equipment and apparatus	1,000,000	Benito Santos
3.	Bataan Manufacturing Co., Inc.	1146 Hermosa St., Tondo Metro Manila, Philippines	211-043	Manufacturer	Medical equipment, spare parts	300,000	Francisco Sy-chanco
4.	C. M. Bautista Trading	174 Mariveles St., La Loma, Quezon City Metro Manila, Philippines	•	Wholesaler	Medical, dental, nursing supplies & equipment	50,000	Corazon Bautista
5.	JC's Enterprises	323 C. de Oios St., Sta Mesa Metro Manila, Philippines	615-314	Wholesaler	Medical & dental supplies and equipment	50,000	Carmencita David
6.	San Rio Trading & Supply, Inc.	69 A. Roque St., Tunsaya, Halabon Metro Manila, Philippines	•	Wholesaler	Mospital equipment, parts and supplies	150,000	Mario Vilmadrid
7.	Quejxer Trading	S Manga St., Katipunan, SFOM, Quezon City Metro Manila, Philippines	965-344	Wholesaler	Oental 4 hospital equipment, chemicals and supplies	50,000	Emmanuel Javier
<b>√</b> 8.	Medical Center Trading Corp.	No. B. Mercury Ave., Libis, Quezon City Metro Manila, Philippines	721-9201 to 13	importer/ Wholesaler/ Manufacturer	Hospital/ medical equipment, instruments and supplies	5,000,000	Dr. Antonio C. Macatangay
3,	Far East Surgical Industries	1718 Rizal Ava., Sta. Cruz Manila, PMilippines	711-8838	• Wholesaler	Hospital, medical and surgical supplies and equipment	200,000	Francisco M. Jose
M	. Trypton Scientific Supply	126-A Timog Ave., Sacred Heart; Quezon City Metro Manila, Philippines	752-078	Importer/ Wholesaler	Laboratory glasswares and equipment	20,000	Juanito Casale
11	. B.M. Benedicta Enterprises	#1 V. Luna Road, Pinahan, Quezon City Melro Manila, Philippines	922-4606	Wholesaler	Medical, dental and laboratory equipment and supplies	50,000	Minuel Marquez
12	. Technomed International, Inc.	Medecor Bldg., Ortigas Ave., San Juan Metro Manila, Philippines	721-1860	I∉porter/ Distributor	Medical, dental and laboratory equipment and supplies	1,000,000	Josa Ma. Rodriguez
13	. Biotronics, Inc.	4 KevGarden, Bgy.St.Ignatius, Quezon City Metro Manila, Philippines	721-4468	Wholesaler	Medical equipment and supplies	100,000	Josephine Laguatan
U	. The Analyst Supply House, Inc.	531 San Rafael St., Mandaluyong Metro Manila, Philippines	784-354	Importer/ Wholesaler	Medical machineries, equipment and supplies	500,000	Jianito Lopez
<b>√</b> 15	. Chemtron Instruments Corp.	5518 South Superhighway, Makati Metro Manila, Philippines	871-397	Trader	Laboratory equipment and instruments	50,000	Felixberto Villaraza
16	. VVV Trading	326 Gen. V. Lim St., San Juan Metro Manila, Philippines	722-0218	[mporter/ Wholesaler	Laboratory equipment and instruments	24,000	Ambrocio T.C. Acero
17	. Denta Dynamics Dental Supplies	48-8 Aurora Arcade, Aurora Blvd., Cubao Quezon City, Melro Manila, Philippines	•	Retailer/ Wholesaler	Dental supplies and laboratory equipment	200,000	James Gotico
18	DMV Medilab Trading	15-C Sevilla St., Malabon Metro Manila, Philippines	238-079	Wholesaler	Hospital and laboratory supplies	50,000	Diosdado Verbo
19	. Triskelion Philippines, Inc.	4 Cardes St., Quezon City Metro Manila, Philippines	712-0380	Wholesaler/ Manufacturer	Hedical equipment and supplies, chemicals and pharmaceuticals	1,000,000	Arturo Bernai
20	. Harvest Moon Trading	Rw. 200 Jennie Bldg., Quiricada St., Sta.Cruz, Manila, Philippines	741-4528	Retailer/ Wholesaler	Medical supplies, instruments, equipment and linens	100,000	Teresita Bulan
	. M. Perfecto Enterprises	330 Jade St., Agro-Homes Subd., Muntinlupa Metro Manila, Philippines	-	Retailer/ Wholesaler	Hospital and medical supplies & equipment	59,000	Hanserrat Perfecto

as based on a one-time registration with the department's Bureau of Decestic Trade. A more reliable directory of suppliers of medical equipment & supplies market. This is understandable in that the OTT list was based on a one-time registration with the department's Bureau of Decestic Trade. A more reliable directory of suppliers of medical equipment & supplies is the DOH list of accredited suppliers (Exhibit V!) because accreditation with the COH is renewed every year.

#### EXHIBIT III Page 2 of 4

	COMPANY NAME	ADDRESS	TEL. NO.	TYPE OF BUSINESS	PRODUCT LIME (S)	CAPITALIZATION (Pesos)	CONTACT PERSON
22.	Broadline Marketing, Inc.	1146 Hermosa St., Tondo Manila, Philippines	•	Wholesaler	Hospital and medical supplies	100,000	Francis Sychanged Sr.
23.	Nani-Lab. Inc.	2222 Oroquieta St., Sta. Cruz Manila, Philippines	•	Wholesaler/ Manufacturer	Hospital equipment, apparatus and instruments	1,000,000	Marciano Laburada
24.	Vibra Trading	1603 Oroquieta St., Sta. Cruz Manila, Philippines	200-762	Wholesaler	Hospital and medical supplies	15,000	Alfredo Baltazar
25	Chromey Trading	1801 Dart St., Paco Manila, Philippines	521-2595	Wholesaler	Hospital and office supplies	30,000	Antonio Estonina
26	Vanhuray Commercial	2266 T. Mapua cor. Laguna Sts., Sta. Cruz Manila, Philippines	263-534/ 200-127	Wholesaler/ Distributor	Hospital and medical supplies & equipment .	107,000	Reynato Poblete
27	Lakan Magaantile	Suite 610 Dona Amparo Bldg., Espana cor. Cataluna Sts., Manila, Philippines	752-0024/ 905-681	Wholesaler/ Distributor	Hospital and medical supplies & equipment	200,000	Rodolfo Diaz
28	. Manila Medical Supplies	1733 Alfonso Mendoza St., Sta. Cruz Manila, Philippines	711-8426/ 711-84-30	Wholesaler	Hospital, dental and medical supplies and equipment	52,000	Selacio Cunanan, Jr.
29	. Herca Sales	4 Valenzuela St., Valenzuela Metro Manila, Philippines	732-0024	Retailer/ Wholesaler	Hospital, dental and medical supplies and equipment	75,000	Merminio Calalang
30	. Strong Hold Enterprises	I J. P. Ramoy St., Talipapa, Quezon City Metro Manila, Philippines	901-958	Wholesalar	Medical and dental equipment	30,000	Cesar Del Munda
31	. 13 Trinidad Enterprises	3104 Ipil St., United Paranaque, Paranaque Metro Manila, Philippines	828-2592	Wholesaler	Medical and dental products	200,000	-
17	?. Paban Enterprisas	1973 Anacleto St., Sta. Cruz Manila, Philippines	213-788	Wholesaler/ Manufacturer	Medical equipment and supplies	102,000	Ruben De Vera
3.	5 Jo-Ji∎ Enterprises	1973 Anacleto St., Sta. Cruz Manila, Philippines	213-798	Wholesaler/ Manufacturer	Medical equipment and supplies	100,000	Jaime Brian
1	4, JC-XI Enterprises	17 Marra Ave., Mapayapa Village, Diliman Quezon City, Metro Manila, Philippines	618-865	Importer/ Wholesaler	Medical equipment	50.000	Soledad Reyes
35	5. Sharp Commercial	403 Dominican St., Sta. Ana Village, Paranaque, Metro Manila, Phils.	827-5368	Wholesaler	Medical equipment and supplies	85,000	Ramon Maog
36	5. OBC Enterprises	1810 Evangelista St., Bangkal, Makati Metro Manila, Philippines	875-916	Wholesaler	Medical equipment and supplies	50,000	Ofelia Calabic
37	7. Cashlink Enterprises	92 Batino St., Project 3, Quezon City Metro Manila, Philippines	•	Wholesaler	Medical equipment and supplies	10,000	Ernesto Pilar
38	3. PVA General Merchandise	2094 Jose Abad Santos, Sta. Hesa Manila, Philippines	•	Wholesaler	Medical equipment and supplies	10,000	Peter Arceo
<b>✓</b> 39	7. GAN Enterprises	59 Minag Imelda St., Caloocan City Metro Manila, Philippines	903-382	Wholesaler/ Distributor	Medical equipment and supplies	200,000	Gabriel Nocum
46	O. Heditec Sales	1-D Dian cor Edison Sts., Makati Metro Manila, Philippines	815-0395	Wholesaler	Hospital equipment and supplies	500,000	Noe De La Cerna
41	1. Asia Hed Enterprises	1022-C Morong St. Manuguit, Tondo Manila, Philippines	264-018	Wholesaler	Medical equipment and supplies	50,000	Manuel Dayao

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COMPANY MAME	ADDRESS	TEL. NO,	TYPE OF BUSINESS	PRODUCT LINE (5)	CAPITALIZATION (Pesos)	CONTACT PERSON
42. Cesar B. De Vera Enterprises	33B Gov. Garcia St., Banker's Village Caloocan City, Metro Manila, Phils.	•	Retailer/ Wholesaler/ Manufacturer	Drugs, medicines and medical equipment	100,000	Cesar De Vera
43. Shangri-la Enterprises	1543-A Quezon Ave., Quezon City Metro Manila, Philippines	988-144	Wholesaler	Laboratory equipment and supplies	50,000	Samuel Chang
✓ 44. Sulvar (Phils.) Enterprises	Suite 201 Gocheco Bldg., C.M. Recto Ave., Quezon City, Metro Manila, Phils.	-	Retailer/ Wholesaler/ Importer/ Exporter	Hospital/medical equipment and dental supplies	500,000	Rosie Garcia
45. Jefnmatt Tradelinks International	12 Masunurin St., Sikatuna Village Quezon City, Metro Manila, Phils.	921-5415	Manufacturer Wholesaler	Medical equipment and supplies	50,000	Antonio Gallardo
√46. Med-Lines Enterprises	255 Baesa Road, Caloocan City Metro Manila, Philippines	361-74-04	Wholesaler	Pharmaceutical equipment and supplies	20,000	Rodolfo Melencio
✓T. Arkhe Trading	metro manila, Philippines Swite 425 Comfoods Bldg., Buendia Ave. Makati, Metro Manila, Phils.	855-661	Trader	Hospital, laboratory and dental equipment	500,000	Efren Neir
48. Shewedent Dental & Medical Clinic Co.	304 Medalla Bldg., EDSA cor. Gen. McArthur Cubao, Quezon City, Metro Manila, Phils.	921-2601	Wholesaler	Dental and Medical equipment and supplies	400,000	Edgardo De Leon
49. C.O.G. Medical Enterprises	34 Samson Ave., BF Homes, Caloocan City Metro Manila, Philippines	903-039	Retailer/ Wholesaler	Dental and Medical equipment and supplies	150,000	Cecilio Gorospe
50. Levin's Incorporated	973 EDSA, Diliman, Quezon City Metro Manila, Philippines	97.4-475/476	Retailer/ Wholesaler	Hospital equipment	700,000	Antonio Tanco
S1. Theracor (Phils.)	Rm.301 Dona Cornelia Bldg., 1718 Rizal Ava. Manila, Philippines	711-8933	Wholesaler	Medical supplies	150,000	Francisco Muyot
S2. Videl laport-Event	547 Francisco St., Tondo Manila, Philippines	267-557	Importer/ Exporter/ Wholesaler	Medical and dental tools & supplies	200,000	Isidro Gonzales
55. Micel Marketing	103 Azucena St., 10th Ave., Caloocan City Metro Manila, Philippines	357-764	Wholesaler	Hospital and office supplies	33,000	Antonio Eua
54. B. C. Trading	1134 Cataluna St., Sampalok Hanila, Philippines	•	Wholesaler	Medical supplies, drugs & pharmaceutical products	10,000	Olosdado Del Tastillo
<ol> <li>Sergemani Medical Supplies and Drug Trading.</li> </ol>	118 Tandang Sora St., Quezon City Metro Manila, Philippines	922-9913	Wholesaler	Laboratory supplies	100,000	Gerry Tiongson
56. Denwark Industrial Sales	Rm 312 Borja Bldg., Rizal Ave., Sta.Cruz Manila, Philippines	•	Wholesaler	Respiratory devices and medical supplies	25,000	Salvador Navarro
Manila Integrated Marketing	24 West Capitol Orive, Kapitolyo, Pasig Metro Manila, Philippines	•	Importer/ Exporter/ Wholesaler	Laboratory instruments	100,000	Ambrocio Trias, Jr.
58. Chrismon International Trading	Rm 300 CLMC Bldg., 269 EDSA Greenhills Mandaluyong, Metro Manila, Philippines	783-275	Importer/ Wholesaler	Laboratory glasswares, toolbits, carbides, etc.	87,000	Ramon Bernardo
59. AOMP Enterprises	1446-C Labores St., Pandacan Manila, Philippines	585-733	Wholesaler	Dental materials	20.000	Oanilo Punzalan
60. Saints Dental Material Enterprises	355 M.H. Del Pilar St., Ususan, Taguig Metro Manila, Philippines	693-5907	Wholesaler	Dental and medical supplies	10,000	Leonardo Santos
61. Standard Dental Supply	440 Platerias St., Quiapo Manila, Philippines	481-798	Retailer/ Wholesaler	Hospital supplies	60,000	Virginia Lu
62. E. Ge La Cruz Trading	5th Filipinas Ave., Paranaque Metro Manila, Philippines	827-9731	Wholesaler	Medical and hospital supplies	100,000	Evelyn Dela Cruz
63. Zamen Supplies and Distribution	240-A Kalantiao St., Bagumbuhay, Proj.4	•	Wholesaler/ Processor	Surgical and medical supplies	20,000	Eubito Mendiaro

EXHIBIT III Page 4 of 4

		TEL MA	TYPE OF BUSINESS	PRODUCT LINE (S)	CAPITALIZATION (Pesos)	CONTACT PERSON
COMPANY NAME	ADDRESS	TEL. NO.		Urine bag, Jy splints, ice & cold bag,	25,000	Leocadio Lopez, Jr.
	2741 Int 14 Lico St., Tondo	741-5337	Wholesaler	medical supplies		
51. Globeth Marketing	Manila, Philippines		Medicines, gauze, disposable syringe,	75,000	Jerry James Comia	
	2339 San Anton St., Sampaloc	•,	Wholesaler	needles, atc.		
65. Griffith's Health Supply and Facilities	Manila, Philippines			·	10.000	Jaize Aranilla
	9 Bayan St., SFDM, Quezon City	975-766	Wholesaler	Three-fold distilled water		
55. JE Medical Supplies Phils.	Metro Manila, Philippines				200,000	Virgilia Chacon
		801-3116/9344	Wholesalar/ Manufacture	r Medical and hospital supplies	500,000	•
of, Vircon Laboratories, Inc.	Rosal cor. Alley Sts., Pamplona Las Pinas, Metro Manila, Phils.				100,000	Eduardo Maxion
		•	Wholesaler	Medical and hospital supplies	103,003	
e3. Grossworth Marketing	1144-C Del Monte Ave., SFDM, Quezon City Metro Manila, Philippines				100.000	Myrna Rodriguez
		598-486	Wholesaler '	absorbent gauze, surgical pads,	100,000	Hyrna Rourtjuet
63. M. G. Rodriguez Marketing	1105 Vito Cruz St. Malate Manila, Philippines	370 400		cottans, etc.		Accordo Bango
		•	Wholesaler/ Repacker	Lens	10,000	Armando Banos
70. Angar Enterprises	2060 Kahilom St., Pandacan	•	MIGICIATORY MARCHINE			
	Manila, Philippioes		Hamilton turne	Processing of optical lenses	900,000	Lourdes Lisson
71. MTC Lens Processors, Inc.	3f EBC Bldg., 132 C. Palanca St.,	•	Hanufacturer	Troubles of the second		
Fig. and construction of the	Malate, Manila, Philippines			Optical frames	100,000	Evelyn Perez
12. E. De Los Reyes Optical	Harcos Highway, Santolan, Pasig	921-6415	Processor	Optical Traces		
Laboratory	Metro Manila, Philippines		521-9685 Wholesaler	Author forms	4,000	Rajkumar Phalwani
	18 Flr Garçia Bldg., Sta. Cruz	521-9685		Optical frames	•	
ij, R. J. M. Commarcial	Manila, Philippines					

Tost of these firms were found to be no longer operating; it thus confirms the presence of "fly-by-night" traders in the local medical equipment & supplies market. This is understandable in that the DTI list was based on a one-time registration with the department's Bureau of Domestic Trade. A more reliable directory of suppliers of medical equipment & supplies is the DOM list of accredited suppliers (EMMISHI VI) because accreditation with the DOM is renewed every year.

Source of data: Of:

EXHIBIT IV Page 1 of 2

## Directory of Accredited Member-Firms of the Hospital, Medical, Laboratory Equipment & Supplies Importers Association of the Phils. (HOMLESIAP). Inc. for 1988

	Company Name	Address	Tel. No.	Product Line	Contact Person / Position	Telex / Fav / Cable
ı.	Analyst Supply House, Inc.	531 San Rafael St., Mandaluyong Metro Manila, Philippines	784-354 795-371	laboratory instruments and chemicals	Mr. Prudencio Samson - President	Telex: ITT 40404/Box \$2000 Cable: ANASUP MANILA
2.	Biomedical Supplies	2nd flr., Dona Anacleta Bidg., 891 Galicia cor. Espana Sts., Manila, Philippines	731-1117 731-1120	Orthopedic implant, instruments, and disposable products	Dr. Ignacio F. Juico - Pres. & GM	- Hone-
3.	Consolidated Industrial Gases, Inc.	Pioneer cor. Sheridan Sts., Mandaluyong, Metro Hanila, Phils.	787-070 787-076	laboratory reagents and supplies	Robert J. Hetherington - President	Telex: 42456 CIGI PM Cable: CIGFIL
4.	Dakila Trading	8 208 Pilar St., Mandaluyong, Metro Manila, Philippines	707-511 783-314	Laboratory instruments, chemicals and supplies	Mr. Richard A. Tee - President	Telex: 42463 Fax: 721-0736
5.	Edward Keller Phils., Inc.	2723 Pasong Tamo St., Makati. Metro Manila, Philippines	810-0201	Laboratory instruments and chemicals	Aaron Gordon Wesley - President	Telex: RCA 22025 / ITT 4518/ EASTERN 63546/ Fax: B17-3421
6.	Esphar Medical Center, Inc.	1581-1583 Bambang St., Sta.Cruz, Manilà, Philippines	711-8132 711-7286	Hospital equipment and supplies	Engr. Cesar Espirity - G M	Telex: 63199 ETPINO PK
1.	Fairbright Enterprises	G-3 Cityland Cond.IV, Valero St. Salcedo Village, Makati, Metro Manila, Philippines	815-9331	Medical equipment	Mr. Rodrigo T. Pepito - Pres. & GM	Telex: 27668 HAC PH Cable: FAIRBRIGHT MANILA
. 8.	Fame Pathologist Lab. Supply	986 Aurora Blvd., Quezon City, Metro Manila, Philippines	921-34-82 695-9457	laboratory diagnostic reagents	Mr. Faustino Aquino - Pres. & GM	- None -
٩.	Federal Medical Pharma, Inc.	171 Aurora Blvd., Quezon City Metro Manila, Philippines	786-006 786-009	Hospital, medical and laboratory equipment and supplies	florencio C. Lim - President	Telex: 41450 FEDMPI PM Cable: FEDPHARM MANILA
10	. Gateway Enterprises	S860 Panulturan St., Quezon City Metro Manila, Philippines	354-480 355-352	Hospital and medical equipment and supplies	Che Boon Lim - Pres. & GM	Telex: 42469 GATENCO PM Fax: 63-2-362-1583 Cable: GATENCO PM
11	. Golden Bat Enterprises	52 Scout O.M. Alcaraz St., Quezon City, Metro Manila, Phils.	731-9745 731-9746	Laboratory equipment, glassware and supplies	Mr. Marsano Lee - President	Telev: 65735 GBAT PH
12	. Harnwell Chemicals Corp.	4161 Ponte St., Makati Metro Manila, Philippines	855-086	lahoratory chemicals and glassware equipment	Mr. Louie Wong - 6 M	Tix Bx: 5134 GLOBE MACKAY Fax: 855-161
13	Medecor Philippines, Inc.	Medecor Bldg., Ortigas Avenue San Juan, Metro Manila, Phils.	785-986 785-988	Hospital/medical/dental/laboratory equipment & supplies and selected pharmaceutical items	Jose S. tavarro - President Manuel Ong - V P Marketing	Telev: 27591 MOR PH Fax: 721-1850
14.	Medical Center Trading Corp.	Pioneer St. cor. Shaw Blvd., Pasig, Metro Manila, Phils.	673-1575 789-911	Hospital and laboratory equipment	Or. Antonio C. Hacatangay - V P & 6 M	Telex: 43191 NEDIC PM Fay: (632) 727-0699
15.	Microlab, Inc.	1916-1926 F. B. Harrison St. Pasay City, Metro Manila, Phils.	586-959 597-876	taboratory and hospital equipment Manufacturer of prepared slides	Mr. Hans Arber - President Mr. V. P. Mercado - { V P	Telex: 722-27303 FIN PH Fax: 522-2135 / 819-3214

EXHIBIT IV Page 2 of 2

16. Holave Trading, Inc.	B91 EDSA, Quezon City Metro Manila, Philippines	983-216 983-219	taboratory and hospital equipment	Mr. Eustaquio T.C. Acero - Pres. Ms. Rosalina F. Acero - V P	Teley: 27495 GOA PH Fax: (632) 921-8261
17. One Source Scientific, Inc.	Marslin Bldg., BBO Rizal Avenue Manila, Philippines	711-6891 711-6892	Hospital/medical/dental/laboratory equipment and laboratory chemicals	Mr. Marciano laburada - Pres.	- None -
18. The Pharmedic Corp. (Botica de Sta. Cruz)	4th fir., legaspi Towers 200 Paseo de Roxas, Makati Metro Manila, Philippines	817-5536 817-5540	laboratory and hospital equipment and supplies	Prudencia J. Teodoro - President	Telex: 22650 DDC PH Fax: B18-41B8
19. R. G. Meditron, Inc.	B2 Panay St., Quezon City Metro Manila, Philippines	978-571 971-029	Medical equipment and supplies	Mr. Reynaldo García - President	Telex: 42803 RGMEO PM
20. Three-I Phillppines	704 Aurora Blvd., Quezon City Motro Manila, Philippines	700-835 721-8352	Hospital/laboratory/medical equipment and industrial equipment	Mr. Enrique Lia - President Mr. Salvador Jereza - Asst. G M	Telex: 40018 Tix 8x 2471 Fax: 721-7012
21. Xemex Siemens, Inc.	Rivilla Bidg., Legaspi St., tegaspi Village, Makati Me‡ro Manila, Philippines	818-1411 818-1414	Hospital and dental equipment	Mr. Juan Miguel Tan - Managing Director	Telex: 64020 PH Fax: 810-6736
22. Zenith Medical Equipment, Inc.	1123 Rizal Ave., Sta. Cruz Manila, Philippines	711-7878 711-7909	Medical equipment and supplies	Mr. Juan B. Reyes - President Federico D. Reyes - E V P	Telex: 42706 ZEMED PM

Source: Hospital Medical Laboratory Equipment & Supplies Importers' Association of the Philippines (HOMLESIAP), Inc.

List of Selected Local Manufacturers of Medical Equipment and Supplies, 1988

1. Esphar Medical Center (EMC) 1425 Rizal Ave., Manila Tel. No 711-7286/ 711-72-92 Engr. Cesar Espiritu - G.M. Manufacturer of EMC brand hospital equipment and apparatus: autoclave sterilizer (electric or gas), instrument sterilizer, distilling apparatus, auction machine, lab oven and lab incubator, baby incubator

2. Bataan Manufacturing Co., Inc.
1146 Hermosa cor. Bagac Sts.
Manuguit Subd., Tondo, Manila
Tel. 211-043/ 215-064
267-491/ 213-924
Telex: 40122 EMIC PM
Francisco T. Sychangco
- President

Manufacturer of hospital equipment and furnitures, EMCI brand hotpacks

3. Oro Medical Enterprise
1446 Rizal Ave. Sta. Cruz
Manila P.O. Box SC-317 Mla.
Tel. No. 711-7751/ 711-5977
Plant Site: 88 Molave St.
Marikina Heights, Concepcion
Marikina, Metro Manila
Tel. 947-4175
Felix E. Medel - Prop. & GM

Manufacturer of modern quality hospital equipment

4. Adamson & Adamson, Inc.
53 Col. Bonny Semano Ave.
formerly Santolan Road
Quezon City, M.M.
Tel. No. 787-746/ 787-755/ 787-758
Manuel M. Blanco - EVP & Treasurer

Manufacturer of personal and health care, feminine hygienic, medical, pharmaceutical, hospital and baby products

5. Johnson & Johnson (Phils.), Inc.
Km. 14 Edison Ave.
South Superhighway
Parañaque, Metro Manila
Tel. 827-7011 to 7023
Telex 45394 AQUAEOUS PM
Jose Antonio Rodriguez - President

Manufacturer, wholesaler, distributor of health care products, adhesive handages, pharmaceutical and hospital products

6. Beckton, Dickinson (Phils.), Inc. 2F Cacho Gonzales Building 101 Aguirre St., Legaspi Village Makati, Metro Manila P.O. Box 7234 AEO-MIA Philippines Tel. 818-7666/ 818-7667 Cable: BDAPH

Telex: 64677 BDA PN

Jesus M. Fargas - Sales Manager

Manufacturer and distributor of a broad line of health care products used by hospitals, doctors, laboratories, pharmaceutical companies, medical schools, dentists, etc.; gloves, protective clothing, electronicmedical devices

7. Boehringer Manheim (Phils.), Inc. 3 F Fortune Office Bldg. 160 Legaspi Street Legaspi Village, 1200 Makati M.M. Tel. 810-7246 Fax: 819-3647 Paul C. Aragones - President & General Manager

Manufacturer & distributor of medical/ dental/ surgical supplies and pharmaceutical preparations

8. Philipps Group of Companies 2246 Pasong Tamo, Makati, MM Tel. 810-0161

Telex: 66494 PUPS PN

Fax: 817-3474 Karel R. Ehrnreich

- President & General Manager

Manufacturer/ Importer/ Exporter of various products, including medical equipment

9. KONE Machineries Phils., Inc. TI-ABC Mile Long Bldg. Amorosolo St., Legaspi Village Makati, Metro Manila Manufacturer/ Distributor of clinical/ hospital facilities, among others

Tel. 871-295/ 852-274/ 859-540/ 859-548

Telex: 63880 KONE PN Fax: (632) 818-9720

Erico S. Pacaba - Presidenti

vio. Associated Drugs, Inc. 222 Taft Ave., Malate, Manila

Tel. 582-731

Telex: 63302 ASDRUG PN Cable: "ASDRUG" MANILA Manufacturer/ Importer/ Distributor/ Dealer of hospital equipment, supplies and health care products

11. Rodel Hospital Equipment
Manufacturing & Supply Co.
56 West Riverside Street
SFDM, Quezon City
Tel. 988-783/ 976-838
Eddie Rodriguez - President
Alfredo Rodriguez - General Manaer

Manufacturer of hospital equipment and supplies

Microlab, Inc.
Pioneer St. cor. Shaw Blvd.
Mandaluyong, Metro Manila
Tel. 673-1575/ 673-1577
Telex: 722-27303 FIN-PH
Fax: 522-2135/ 819-3214
Hans Arber - President

Manufacturer of prepared slides, Importer/ Distributor of hospital equipment

13. General Textiles, Inc.
Textile Road
E. Rodriguez Jr. Avenue
Libis, Quezon City, M.M.
Tel. 721-92-21 to 33
Telex: 27362 GTX PH
Cable: YUJUICO Manila
Edilberto V. Yujuico

Manufacturer of dress materials, denims and surfing materials, bedsheets and curtains, finished spun yarn, among others

- President and General Manager

# Republic of the Philippines Department of Health OFFICE OF THE SECRETARY Mandla

# COMMITTEE ON SUPPLIERS ACCREDITATION GENERAL INFORMATION

#### A. POLICY:

Accreditation is deemed essential to ensure that the Department of Health deals only with reliable suppliers.

#### B. WHO MAY APPLY:

Any reputable individual or entity interested to deal with DOH and those suppliers who wish to renew their accreditation.

#### C. TYPES OF ACCREDITATION:

- 1. Central Office Accreditation allows accredited suppliers to join biddings conducted at the DOH Central Office and to serve all DOH agencies nationwide.
- 2. Regional Accreditation allows accredited suppliers to serve all DOH agencies nationwide but not to participate in biddings conducted at Central Office.

#### D. WHERE TO APPLY:

Application for accreditation may be made from any of the following places:

- 1. DOH Central Office, San Lazaro Compound, Sta. Cruz, Manila. The Central Office can issue both "Central Office Accreditation" or "Regional Accreditation".
- 2. Office of the Regional Director, DOH regional health offices nationwide.

  The DOH regional offices can issue only 'Regional Accreditation'.

#### E. HOW TO APPLY AT THE CENTRAL OFFICE:

- 1. List of requirements may be obtained at the Radiation Health Service, DOH Compound, from any of the following members of the Committee on Suppliers Accreditation (CSA) Secretariat:
  - a) Ms. Priscila Dela Romi San Juan
  - b) Mr. Charlie S. Lagarde~
  - c) Mr. Larry C. Rubian
  - d) Ms. Annabelle B. Chua
- 2. An accreditation must be applied for <u>each</u> product/service category being carried.
- 3. Pay non-refundable application fee of 1950.00 per product/service category at the Cashier's Office, Administrative Service Bldg., DOH Compound.
- Present Official Receipt to the Secretariat of the Radiation Health Service DOH to get application form (CSA Form # 2) for each category being applied for.

page two general information. . . .

5. Submit CSA Form #2 together with All the required supporting documents.

Only those application with complete requirements will be accepted wide in the processed by the Committee.

#### F. HOW TO APPLY AT THE REGIONAL OFFICES:

- 1. List of requirements may be obtained at the Office of the Regional Director, DOH regional health offices nationwide or at such other places as may be designated.
- 2. An accreditation must be applied for <u>each</u> product/service category being carried.
- 3. Pay non-refundable application fee of \$50.00 per product/service category at the Cashier's Office of each region.
- 4. Present Official Receipt to the Secretariat of the Regional Health Office DOH concerned, to get application form (CSA Form #2) for each category being applied for.
- 5. Submit CSA Form #2 together with all the required supporting documents.
  Only those application with complete requirements will be accepted and will be processed.

#### G. WHEN TO EXPECT DECISIONS:

- 1. Applicants will be notified in writing about the status of application within three (3) weeks after date of submission.
- 2. Disapproved applications will be returned to applicants and they can be reconsidered upon compliance with the requirements.
- 3. A certificate of Accreditation will be issued to approved applications.

#### II. VALIDITY OF ACCREDITATION:

The Certificate of Suppliers Accreditation is valid for one(1) year from date of issuance.

#### I. REVOCATION OF ACCREDITATION:

Ocular inspection may be conducted as the need arises and accreditation may be revoked anytime for non-compliance of requirements.

# Department of Health COMMITTED ON SUPPLIERS ACCREDITATION

# REQUIREMENTS FOR SUPPLIERS ACCREDITATION OF HOSPITAL/LABORATORY/MEDICAL/DEFTAL EQUIPMENT

#### I. DOCUMENTS FOR SUBMISSION:

Upon application, the applicant for accreditation shall submit copies of the following:

### A. Legal and Documentary Requirements:

#### 1. For Single Proprietorship:

- a. Registration certificate of business name from Bureau of Domestic Trade
- b. Mayor's permit

#### 2. For Corporation or Partnership:

- a. Mayor's permit
- b. Certificate of registration with Securities and Exchange Commission

#### B. Financial Capability:

- 3. Income tax return for the last two (2) years
- 4. Audited financial statement for the last two (2) years

#### C. Service Capability:

- 5. List of product line or items being carried for sale
- 6. If dealer/distributor, submit a copy of the dealership/distributorship agreement with principal for products/items concerned

### D. Physical Plant/Office:

- 7. Location map of office and storage (to guide inspection team)
- 8. Floor plan, including dimensions of office and storage area in relation to adjacent residences or offices
- 9. One recent photo for each of the following areas: working, office and storage

#### E. Track Record:

10. List of major customers served for the last two (2) years

#### II. MINIMUM REQUIREMENTS:

- 11. Networth of \$500,000.00 at the time of application (for Central Office Accreditation)
  Networth of \$1375,000.00 at the time of application (for Regional Accreditation)
- 12. List of four (4) full time personnel (name & designation)
- 13. Brochures of all products/equipment being carried

Note: For renewal of application, present the original copy of 1987 Certificate of Suppliers Accreditation.

CSA Revised Form : 3e 1/14/88

#### Department of Health COMMITTEE ON SUPPLIERS ACCREDITATION

#### REQUIREMENTS FOR SUPPLIERS ACCREDITATION OF HOSPITAL/LABOURTORY/NEDICAL/DEETAL SUPPLIES

#### DOCUMENTS FOR SUBMISSION:

Upon application, the applicant for accreditation shall submit copies of the following:

#### A. Legal and Documentary Requirements:

#### 1. For Single Proprietorship:

- a. Registration certificate of business name from Bureau of Domestic Trade
- b. Mayor's permit

### 2. For Corporation or Partnership:

- a. Mayor's permit
- b. Certificate of registration with Securities and Exchange Commission

#### B. Financial Capability:

- 3. Income tax return for the last two (2) years
- 4. Audited financial statement for the last two (2) years

#### C. Service Capability:

- 5. List of product line or items being carried for sale
- 6. If dealer distributor, submit a copy of the dealership/distributorship agreement with principal for products/items concerned
- 7. Valid license to operate from the Bureau of Food & Drugs
- 8. Valid BFAD product registration for each item carried for sale which are enumerated in the attached list

## D. Physical Plant/Office:

- 9. Location map of office and storage (to guide inspection team)
- 10. Floor plan, including dimensions of office
- 11. One recent photo for the working/office area

#### E. Track Record:

12. List of major customers served for the last two (2) years

#### II. MINIMUM REQUIREMANTS:

- 13. Networth of F200,000,00 at the time of application (For Central Office Accreditation)
- 14. Networth of 1150,000.00 at the time of application (For Regional Accreditation)
- 15. List of three (3) full time personnel (name & designation)

Note: For renewal of application, present the original copy of 1987 Certificate of Suppliers Accreditation.

EXHIBIT VII Page 1 of 4

Directory of DOH-Accredited Suppliers of Medical Equipment and Supplies, 1988

Ç	D M P A N Y N A N E	ADDRESS	TELEPHONE	TELEX	FAX / CABLE	CONTACT PERSON / POSITION	PRODUĊT LINE (S)
1.	Cymar International, Inc.	Sunvar Cond., Grd.Flr., Luna St. Pasay City, Metro Manila Phils.	833~7841 831-5538	27840	fax: (632) 831-5824	Mr. Syril Ko President	Equipment and Supplies
2.	Orto Medical Enterprise	1446 Rizal Aye., Sta. Cruz, Manila, Philippines	711-7751 711-5977	None	Mone	Mr. Felix Medal President	Equipment
3.	Cabu Oxygan & Acetylene Company, Inc.	110 Legaspi 8ldg., Legaspi St. Makati Metro Manila, Phils.	816-2881 816-2886	19491	Fax: 032-79491	Mr. Manuel M. Moraza President	Equipment
4.	G.O. Acero Enterprises	GO Acaro Bldg., , 891 EOSA, Quezon City, M M, Phils.	983-216 983-219	RCA 27495 GOA PH	Fax: (632) 921-8261	Mr. Eustaquio T.C. Acero President	Equipment
\$.	Federal Medical and Pharmaceutical, Inc.	171 Aurora Blyd., San Juan, Metro Manila, Philippines	786-006 186-009	41450 FEDMPI PM	Cable: FEDPHARM MANILA	Mr. Florencio C. Lim President	Equipment and Supplies
6.	Associated Drugs, Inc.	2222 Taft Avenue, Malate, Manila, Philippines	582 - 131 582 - 134	63302 ASDRUG PN	Cable: ASDRUG MANILA	Mr. Lino Ed. Lim President	Equipment and Supplies
1.	International Scientific & Ind'l Instruments, Inc.	Suite 210, Sunrise Cond., Ortigas Ave., San Juan MM	721-1610 796-047	27677 / 22031	Fax: 721-4151	Mr. Rogalio S. Cuzon Prasident	Equipment
8.	Vana Chemodities Import- Export	52C M.Clara St., Quezon City, Metro Manila, Philippines	731-2011	. None	None	Mr. Alfredo Li General Manager	Equipment and Supplies
9.	Philippine Medical Dental Specialties	435 Platerias St., Quiapo, Manila, Philippines	405-064 403-426	None	None	Mr. Marlano Samolde General Manager	Equipment and Supplies
10.	Philusa Corporation	28 Shaw Blyd,, Pasig, Metro Manila, Philippines	673-1981 673-1990	43101 MERCURY PM	Fax: (632) 122-0699	M. Vivian Que Azcona President	Equipment and Supplies
11.	8lua Sky Trading Co., Inc.	416 Dasmarinas St., Binondo, Manila, Philippines	471-026 471-029	None	None	Mr. Alfred Tantiantsu General Manager	Equipment and Supplies
12.	Filray International, Inc.	4th Fir., Corinthian Plaza, Paseo de Roxas, Makati MM	817-0270 817-0271	None	Fax: 817-0248	Mr. Ramon D. Mescallado President	Equipment
13.	8. Victoria Trading	1640 M. Matividad, Manila, Philippines	711-9554 711-9517	None	Hona	Mr. Sianvinido Victoria Owner	Equipment and Supplies
14.	Consolidated Industrial Gases, Inc.	CIGI Bldg., Pioneer St., Mandaluyong, MM. Phils.	773-781 773-793	42456 CIGI PM	Cable: CIGFIL	Mr. Robert Hetherington President	Equipment
15.	Solid "R" Enterprises	Rm 208, Jennie Bldg., Quiri- cada St., Sta. Cruz, Manila	975-424 711-8276	Hone	None	Ms. [sabel R. Reyes Owner	Equipment and Supplies
16.	The Pharmedic Corporation	4th Fir., Legaspi Towers, Paseo de Roxas, Makati, MM	817-5536 817-5540	22650 DOC PH	Fax: 818-4188	Mr. Prudencio J. Teodoro President	Equipment and Supplies
17.	Gateway Ent. Co., Inc.	58-60 Panalturan St., Quezon City, Metro Manila, Phils.	362-1451 355-352	42469 GATENCO PM	Fax: (632) 362-1583	Mr. Che Boon Lim General Manager	Equipment and Supplies
18.	Continental Hosp. Supplies	305-306 NFMC Bldg., 962 J. i. Escoda St., Ermita, Manila	522-3755	None	None	Mr. Mario Anacleto P. De Vera - President	Equipment and Supplies
19.	Levin's Incorporated	JF R. Syjuco Bldg. 993 Edsa, Diliman, Quezon City, MM.	974-475 974-476	. 65507 LEVIN PM	Fax: (632) 984-841	Mr. Antonio 1. Tangco President	Equipment
20.	Dakila Trading Corporation	208 Pilar St. Mandaluyong, Metro Manila, Philippines	707-511 707-515	42463	Fax: 721-0736	Mr. Roland A. Tee President & G M	Equipment

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CONTACT PERSON /

	ADDRESS	TELEPHONE	TELEX	FAX / CABLE	POSITION	PRODUCT LINE (\$)
COMPANY NAME 21. One Source Scientific,	Marslin Bldg. 880 Rizal Ave.,	711-6891	None	Kone ,	Mr. Marciano Laburada President	Equipment and Supplies
Inc.	Sta. Cruz, Manila	711-6893 819-3141	23717 TCTI PH	Fax: (632) 810-5660	Mr. Joel J. Marciano President	Supplies
22. Telecommunications & Computer, Inc.	2F Kalaw-Ledesma Cond., 117 Gamboa St., Legaspi Vil., Makati	819-3255 785-986	22591 HDR PH	Fax: 721-1850	Mr. Jose S. Lavarro	Equipment and Supplies
23. Medecor Philippines, Inc.	Medecor Bldg., Ortigas Avenue., Greenhills, San Juan, HM, Phils.	785-988			President	Equipment and Supplies
24. APF Export-Emport, Inc.	130 Valencia St., San Francisco del Monte, Quezon City, MM	999-362 981-009	None	None	Ms. Priscilla Fernandez General Manager	
25. Racomser, Inc.	9500-06 Anubing St., San Antonio Village, Makati, MM, Phils.	878-935	Xone	None	Mr. Equidio Dacanay President	Supplies
26. Ethylox Trading Int'l	#10 Ricardo St., Roosevelt Ave., Quezon City, HM, Phils.	965-344	None	None	Ms. Teresita G. Javier President	Equipment and Supplies
Corp.  27. Technomed Int'l, Inc.	4F Medecor Bldg., Ortigas Ave., Graenhills, San Juan, MM, Phils.	721-1860	22591	Fax: 721-1850	Mr. Manuel S. Ong President	Equipment and Supplies
28. The Analyst Supply	531 San Rafael St., Mandaluyong, Metro Manila, Philippines	784-354 785-694	IIT 40404 Tlx 8x # 2000	Cable: ANASUP MANILA	Mr. Prudencio M. Samson President	Equipment
House, Inc. 23. Zenith Medical Equipment,	1123 Rizal Ave., Sta. Cruz, Manila, Philippines	711-7878 711-0870	42706 ZEHED PM	Hone	Mr. Juan B. Reyes General manager	Equipment and Supplies
Inc. 30. De Leon (aport & Export	Odelco Bldg., 128 Kalayaan Ave., Diliman, Quezon City, KM, Phils.	922-9604	None	None	Hr. Oscar M. De Leon President	Supplies
Co., Inc. 31. Riester Philippines, Inc.	111 Congressional Rd., Proj. 8, Quezon City, MM, Phils.	992-449	None	Kone	Mr. George G. Precilla President	Supplies [.]
32. ELC Marketing, Inc.	103 Kamuning Rd., Quezon City, Metro Manila, Philippines	975-744 974-855	None	Hone ·	Mr. Ching Tian Chiong President	Equipment and Supplies
33. Medical Center Trading	Pioneer St. cor. Shaw Blvd., Pasig, Hetro Manila, Phils.	673-1575 673-1577	43191 MEDIC PM	fax: (632) 722-0699	Ms. Vivian Que Azcona President	Equipment and Supplies
Corp. 34. Esphar Medical Center,	1425 Rizal Aye., Sta. Cruz, Manila, Philippines	711-7292 711-7286	63199 ETPIMO PH	None	Engr. Cesar Espiritu General Manager	Equipment and Supplies
Inc. 35. Metro Drug, Inc.	7252 Malugay St., Makati Metro Manila, Philippines	874-950 880-906	Hone	Nona	Mr. Felipe S. Gutierrez General Manager	Supplies
36. Stardent Commercial	R204 Hat'l. Bus. Ctr. Bldg., 567 G. Puyat St., Sta. Cruz, Hanila	495-996 470-946	Hone	Fax: (632) 495-5996	Mr. Armando Que President	Equipment and Supplies
Company 38. M.C. Diaz Enterprises	R305 Dona Cornelia Bldg., 1718 Rizal Ave., Sta. Cruz, Manila	711-8986	Hone	None	Ms. Mayette Diaz Owner	Supplies
39. Blue Ridge Pharmaceuticals	Make	773-372 721-3008	None	Fax: (632) 721-3008	Mr. Jonen Arabaca President & G M	Equipment and Supplies
40. Marsman & Co., Inc.	Sen. Gil J. Puyat Ave., Makati Metro Manila, Philippines	872-031 889-731	22060 MSN PH	Cable: MARSMANINC	Mr. George W. Drysdale President	Equipment and Supplies
41. Microlab, Inc.	1916 FB Marrison St., Pasay City Metro Manila, Philippines		722-27303 FIN PH	Telex: 522-2135 819-3214	Mr. Hans Arber President	Equipment and Supplies
42. Fairbright Enterprises.	G3 CityLand Cond.IV Yalero St., Salcedo Vill., Makati, MM	815-9331 815-9332	27668 HAC PH	Cable: FAIRBRIGHT MANILA	Mr. Rodrigo T. Papito President & G M	Equipment and Supplies
Inc. 43. RG Meditron, Inc.	LFG Bldg, #82 Panay Avenue, Quezon City, Metro Manila	978-571 978-572	42803 RGMED PM	None	Mr. Reynaldo Garcia President	Equipment and Supplies
	Ancton ofth Hoten Hausta					

#### EXHIBIT VII Page 3 of 4

COMPANY NAME	A O O R E S S	TELEPHONE	TELEX	FAX / CABLE	COMTACT PERSON / POSITION	PRODUCT LIME (S)
44. Philab Industries, Inc.	IIS3 Pasong Tamo, Makati, Metro Manila, Philippines	875-423 816-3946	22691 PHILAB PH	Fax: 816-3946	Hr. Mector Mavasero President & G M	Supplies
45. Manila Cardiovascular & Critical Products, Inc.	1186 P.B. Gonzales Ave., Quezon City, Metro Manila, Phils.	963-637	42859 MACARE PM	Cable: MACARE	Ms. Florizel De Pano Owner & G M	Equipment and Supplies
46. Instrumix Supplier, Inc.	Rm 30], IMS Pacific Bldg., 231 Salcedo St., Legaspi Vil., Mkti.	817-9572 817-6849	63464 ISTMX PN	Fax: (632) 817-6849	Atty, Primo D. Mercado President	Supplies
47. Rodel Hospital Equipment Hfg & Supply Co., Inc.	No. 56 West Riverside St., SFOM. Quezon City, Metro Manila, Phils.	988-183 976-838	None	Non e	Mr. Eddie Rodriguez President	Equipment
49. Dynalab Corporation	355 P.Tuazon St. cor. 21st Ave., Cubao, Quezon City, MM, Phils.	922-9154 922-0982	742-42000 PM	Fax: 722-007 Attn: DYNALA8	Mr. Ernesto M. Estacio President & G M	Equipment and Supplies
50. Marmosy Trading, Inc.	R204 ITC Bldg., Gil Puyat Ave., Makati, Metro Manila, Phils.	878-494 857-341	45283 MARMOSY PM 20050 MSY PH	Cable: JOMARCA	Mr. Jose Martin Conrado President	Equipment and Supplies
51. Philips Industrial Dav't, Inc.	2246 Pasong Tamp, Makati, Metro Manila, Phils.	810-0161 810-0167	66494 PLIPS PN	Fax: 817-3474	Mr. Karel R. Ehrnrich President & G M	Equipment
52. Dentsco Center Company	579-80 Gonzalo Puyat St., Sta. Cruz, Manila Phils.	403-370	None	None	Mr. Alex Ching Que General Manager	Equipment and Supplies
53. FYA Export-Import Trading, Inc.	Am 309, Cityland Cond. III, Her- rera St., Makati, MM	852-658 878-214	None	None	Mr. Francisco V. Abalos President & G M	Equipment and Supplies
54. ALS Biochemicals Co., Inc.	Am A-207, Benlor Bldg., 1184 Quezon Ave., Quezon City, MM	992-641	Hone	None	Mr. Avelino L. Sta. Maria – President	Supplies
SS. Air Commercial	1543 Quezon Ave., Quezon City Metro Manila, Phils.	921-6043 921-6099	None	Mone	Mr. Samuel Chang General Manager	Supplies
56. Inter-Urban Marketing Corp.	1930-K Oonada St., Pasay City Metro Manila, Phils.	521-8229 521-8266	None	None .	Mr. Valentine G. Prieto, Sr. – President	Supplies
57. Unicenta Industries, Inc.	219 Reposo St., Bel Air Vill. II Makati, Metro Manila, Phils.	856-564 878-7833	Nona	Mone	Ms. Jocelyn Duran General Manager	Supplies
58. Fame Pathologist Lab Supply	54 Osmena St., Life Homes Subd., Ortigas Ave., Rosario, Pasig, MM	695-9457 921-2483	None	None	Mr. Faustino Aquino President	Supplies
59. Columbia Trading Co., Inc.	716 R. Hidalgo Şt., Quiapo Manila, Philippines	488-041 471-386	None	None ,	Mr. Jose S. Jan General Manager	Supplies
60. Photo King Marketing Corp.	117 West Ave., Quezon City Metro Manila, Phils.	922-9201 922-9208	Mona	None	Hr. Jaine Chua President	Supplies
61. Comica, Incorporated	883 Tetuan St., Sta. Cruz, Metro Manila, Phils.	493-058 407-793	None	None	Mr. 8on S. Tan President & G M	Supplies
62. Ker Trading	Am 400, F. Delta Bldg., West Ave. Quezon City, Metro Manila, Phils.	922-0085 980-65t	None	Mone	Ms. Eleanor B. Paradero Owner	Supplies
63. Inter-Marketing Phils., Inc.	Madecor Bldg., Ortigas Ave., Greenhills, San Juan, MH	785-988	22591 MDR PH	Fax: 721-1850	Mr. Jose S. Lavarro President	Supplies
64. Arnelle's Enterprises	12 Troy Compound, Tandang Sora Ave., Quezon City, MM	922-2519 481-552	None	Kone	Ms. Concepcion R. Cruz General Manager	Supplies
65. Maple Leaf Equipment & Services, Inc.	JA Palacios Bldg., P. Burgos St., Batangas City, Philippines	725-3642	None	None	Mr Abelardo 8. Perez President	Supplies

EXHIBIT VII Page 4 of 4

COMPANY NAME	ADDRESS	TELEPHONE	TELEX	FAX / CABLE	CONTACT PERSON / POSITION	PRODUCT LINE (S)
66. Johnson & Johnson Phils.,	Edison Road, Paranaque, Hetro Manila, Philippines	827-7011 827-7023	45394 AQUAEOUS PM	None	Mr. Jose Antonio Rodriguez President	Supplies
Inc. 67. Cu Unjieng Investments,	702 Filipinas Life Bldg., Ayala Ave., Makati, MM	818-0770 818-0790	None	, None	Mr. Guillermo Cu Unjieng General Manager	Supplies
inc. 68. Instruchem, inc.	Re 508, CLMC Bldg., Greenhills, Mandaluyong, Metro Manila, Phils.	771-015 783-275	None	None	Mr. Ramon Bernardo President & G M	Supplies
69. Quali Pharma Phils.	870 Kasipagan St., Plainview, Mandaluyong, Hetro Manila, Phils.	781-101	Hone	Mone	Mr. Manuel L. Detabali Owner	Supplies
70. Cirimar Laboratories, Inc.	216 A. Villareal St., Pasay City Metro Manila, Philippines	831-1404 831-0656	27840	Fax: (632) 831-5824	Mr. Syril Ko President	Supplies
71. Hiphil Health Care Corp.	3rd Flr., Erekal Bldg., 855 Pasay Road, Makati, Metro Manila, Phils.	818-1373 810-9318	Mone	Hone	Mr. Menlo D. Hernandez President	Supplies
71. Dispo-Philippines, Inc.	2nd Flr., SRC Bldg., 228 Ortigas Ave., Greenhills, San Juan, MA	721-1513 721-1965	None	None	Mr. Marcelo G. Sanchez, Jr. President	Supplies
72. Time Trading International	Rm 208-209, Don Santiago Bldg., 1344 Taft Aye., Manila, Phils.	521-2483	None	Hone	Ms. Mirriam E Orrais Owner	Supplies
73. Gold L Trading	Rm 306, Armon's Bldg., 142 Kamias Rd., Quezon City, Hetro Manila	921-6030	None	Kone -	Menita L. Bartolome Owner	

SOURCE: Committee on Suppliers Accreditation, Department of Health (DOH)

## Hospital Standard Requirements for Technical Equipments & Instruments

	QUANTITY REQUIRED				
ECHNICAL EQUIPMENT & INSTRUMENTS	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIAR MED.CTR
. OUTPATIENT CARE:					
. MEDICINE .	i	1	2	2	3
Stethoscope Sphygmomanometer	i	i	2 2 .0	2	3
ECG Machine	Ō	Ō	.0	1	3 1 2 2
Protosigmoidoscope	0	0	0	2	2
Ultra violet lamp	0	0	0	i	1
EEG Machine	ő	Ŏ	ŏ	ō	ī
Echogram Tuning Fork	ĭ	ĭ	Ĭ	2	2
Neurological hammer	Ī	1,	1	ļ	1
Clinical Scale	j	ļ	1	2	2 2
Examining light	1	1	1	2	4
SURGERY	٥	0	1	1	1
Eye speculum Dissecting scissors (curved)	ĭ	ĭ	Ī	2	1 3 2 3 8
Surgical scissors (straight)	1	1	ļ	2 2	3
Masal snare	Ō	0	1	2 2	1
Retractor	1	1 4	4	8	8
Towel clips Surgical knife	7	ī	ž	3	4
Tissue forcep	i	Ī	2	3	4
Stitch remover	. 1	1	ļ	3 2 2	2
Eye curette	0	0	1	2	2
Bayonet forcep	V	V	1	2 2	2 2 2 2 3 8
Irish scissor Protractor	Ŏ	ŏ	i	Ž	2
Allis forcep	Ŏ	ì	ī	3	3
Mosquito forcep (straight & curved)	Ò	4	2	8 _g	8
Needle holder	1	1	6	3 7	7
Tongue depressor (metal)	1	2	2 2	3	3 3 3 2 2 2 3
Probe Grove director	Ó	î	2	3	ž
Masal speculum	Ŏ	ī	2	3 2 2 2	3
Chalazation forcep	0	0	į	2	2
Septal forcep	0	0	1	5	3
Cast cutter Stethoscope	Ĭ	i	i	ī	Ĭ
Sphygmomanometer	ī	i	1	1	1
. OBSTETRICS & GYNECOLOGY			•	,	7
Stethoscope	1	1	2	3 3 2 2	3
Sphygnomanometer	i	i	î	2	ž
Weighing scale Vaginal speculum	i	i	Ī	2	3 2
Uterine sound	- 1	1	ļ	2	=
Uterine sound Hegars dilators	1	1 2	1 1	2	4
IUD removal hook	1	2	2	2	ž
Examining table/stirrup	i	2	ż	3	4
Mayo scissor curve Tenaculum forcep	i	ī	ĺ	2 3 2 3 2 2	2 3 2 4 2 2 2
Ovum forcep	1	1	ļ	2	2
Punch biopsy	1	1	i	2	2
4. PEDIATRICS	0	1	ŧ	2	. 2
Weighing Scale	1	1	i	2	2 2 2
Sphygmomanometer with pedia cuff	i	i	i	2	
Steffoscope Neurological hammer	Ō	0	1	1	1

QUANTITY REQUIRED

	************************************	WUANTIT KEWUIKEU					
TEC	HNICAL EQUIPMENT & INSTRUMENTS	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED.CTR.	
	EYE, EAR, NOSE & THROAT						
••	Lens	0	0	0	1	1	
	Chalazion set	Ö	Ó	Ŏ	ī	ī	
	Trial lens	0	0	0	Ī	Ī	
	Ophtalmoscope set	0	Ō	1	1	1	
	Eye speculum (Lid retractor)	Ŏ.	1	1	2	2	
	Refraction unit Tanometer	V	0	V	1	1	
	Perimeter	ŏ	ŏ	0	1	1	
	Audiometer	ŏ	ŏ	ŏ	i	i	
	Proitz apparatus	Ö	Ö	Ŏ	ĺ	Ī	
	Head mirror	0	Ō	1	1	2	
	Otoscope set Laryngeal mirror	0	ļ	ļ	ļ	1	
	Masal speculum	V	1	1	4	2	
	Crocodile forcep	ŏ	i	i	i	5	
	Bayonet forcep	ŏ	î	i	î	2	
	Aural speculum	Ŏ	Ĭ	Ĩ	i	Ž	
	Tongue depressor (metal)	1	1	1	1	2	
	Serumenospoon	1	1	1	1	2	
	Iris scissor Stitch remover	0 .	O O	1	ļ	222222222222222222222222222222222222222	
	Iris forcep	0	Ü	1	1	4	
	Thumb forcep	ŏ	í	i	i	5	
	Eye curette	Ĭ	ī	i	i	2	
	Probe	0	1	Ì	ĺ	Ž	
,	Scalpel	1	1	1	1	2	
6.	DENTAL HEALTH CLINIC	^	,		^	•	
	Dental chair, hydraulic, adjustable	0	1	ì	2	3.	
	Amalgamator, electric complete with timer & water despenser	0	1	1	2	2	
	Instrument Sterilizer	ŏ	i	i	2	2 2 2	
	Dental Unit w/ electric motor	Ó	i	Ī	2	2	
	Pick-up forcep	0	1	1	1	1	
	Forcep, rongeur (bone)	Q Q	ļ	ļ	2 2	3	
	Forcep, extracting upper forcep, Moral upper	V	1	1	2		
	Forcen lower extracting	ŏ	i	i	5	3	
	Forcep, lower moral 1st and 2nd	ŏ	i	i	2	3	
	Forcep, lower root ragment	Ŏ	ī	ī	Ž	3	
	Forcep, lowback Burnisher, eggshape double end	0	1	1	2	3	
	Burnisher, eggshape double end	o O	2	2	3	Ş	
	Scissor gun Scalpel w/ blade	ŏ	1	1	2	Ş	
	Explorer double end	ŏ	i	i	2	3	
	Elevator (Dr. Walter F. Barry)	Ō	Ĭ	Ī	. 2	Š	
	Elevator (Ubeco Nos. 1 & 2)	0	ļ	į	2	3	
	Elevator (corss bar right & Left)	. 0	1	1	2 2 2 2 2	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
	Elevator, straight with cross bar handle Cotton Pliers Sow No. 317	Ö	1	1	4	Ş	
	Excavator (disk-shape blade No. B9)	ŏ	1	i	2	3	
	Portable X-ray for Dental	ŏ	i	î	Ž	ž	
	Excavator (right-edge-end) Excavator (left-edge-end) Excavator (double-end) Spatula, dental	0	1	1	2 2	3	
	Excavator (left-edge-end)	0	ļ	1	2	3	
	Excavator (Gouple-end)	0	1	1	2	3	
	Spatula, gental Cock's syringe, positive lock with	0	1	1	2	ა	
	long short hubs	0	1	1	2	3	
	Curette No. 1 SSN termo	ŏ	1	i	5	3 3 3 3	
	Curette preiodental	Ŏ	ī	ī	2 2	ž	
	Bone file SSW No. 11	0	1	1	2 2	3	
	Bone ballet SSW	0	1	1		3	
	Mouth mirror with handle	0	1	1	2	3	

DHAN	YTTT	REQUIRED	ì
WVNN	111	UL MOTULE	,

	ANNUILL VERNIVER					
			TERTIARY	TERTIARY	TERTIARY	
TECHNICAL EQUIPMENT & INSTRUMENTS	PRIMARY	SECONDARY	PROY'L.	REG'L	MED.CTR.	
B. IN-PATIENT						
1. MEDICINE			1	2	2	
Sphygmomanometer	0	1	1	1 .	2 2 1	
Suction apparatus Weighing scale	ŏ	i	i	ī	Ī	
Steam inhalator	Ŏ	1	1	1	1	
Neurological hammer	0	1	1	2	2	
Tuning Fork 2. SURGERY	V	•	•	_	-	
Operating table, hydraulic type BP Apparatus with stand/stethoscope	ļ	1	2 2 2 2	3	4	
Oxygen apparatus complete m/ attachment	1	1	2	i	4	
Major operating light, shadowless	i	î	2	ż	4	
Minor operating light, shadowless	1	Ò	1 2	2	2	
Spotlight with stand, gooseneck Instrument cabinet	1	1	2	3	7	
Instrument table	i	i	2 2 2 2	2 3 3 3 3	4	
Suction pressure unit heavy duty	Ó	į	2	3	4	
Portable sprayer, inhaler Resuscitator	0	0	1	3 1	2	
Emergency light service	ĭ	Ĭ	Ž	3	4	
Autoclave	1	1	2	3	4 2	
Electrocautery machine	0	0	1	1	8	
Pleural suction apparatus Scalpel handle (3 & 4)	Ĭ	ž	4	6	16	
Mayo scissor (curve & straight) Tissue forcep (with and without teeth)	2	4	8	ļ	16 8	
Tissue forcep (with and without teeth) Metz scissor	1	2	4	6	8	
Allis clamp	i	12	4	6	48	
Kelly hemostat clamp (straight & curved)	4	12 12	24 24	36 36	48 8	
Mosquito clamp (straight & curved) Ochners' clamp (straight & curved)	1	72	4	6	8	
Scissor's 8 long Babcock 8 long	Ī	2	4	6	8	
Babcock B° long	1	2	<b>4</b> 8	6 12	48 48 8 8 8 8	
Towel clip Hoisted clamp 8 long	2	ž	4	16	8 6	
Nixter clamp	Ō	Ō	2	4	6	
Balfour refractor, self-retaining	1	1 2	1 4	6	8	
Skin retractor Appendical retractor	i	Ž	4	6	8 8 8	
Ribbon retractor	1	2	4	6	8	
Double end-Richardson retractor Single-end-Richardson retractor	0	0	i	2	4	
Big bandage scissor for caesarian section	Ĭ	į	Ž	4	6	
Sponge forcep Needle holder "8" long	1	2	4	6	6 8 8	
meedle nolder 8 long Instruments sets	í	2	4	6		
Surgical dissection (laparotomy)	0	1	1	2 2 1	8 3 2 1	
Bone instrument	0	0	0	1	1	
Brain instrument Thoracic instrument	Ŏ	ŏ	Ŏ.	ī	i	
Gastro-intestinal instrument	Ŏ	0	1	2	2	
Eye instruments EENT instruments	0	0	0 1	1	1 2 2 2	
Diagnostic instrument	•	·	-	- -		
Esophagoscopy apparatus	0	0	0	1 1	2 2 2 2 2 2	
Broncoscopy	0	0	1	2	ź	
Proctocoscopy Gastroscopy	Ŏ	Ŏ	0	1	2	
Cystocopy	0 0 0 0	0	0	1	2	
Panendoscopy	0	0	0	0	1	
Resectoscopy Anglography	ŏ	Ŏ	ŏ	Ŏ	i	
Intaral akul						

### QUANTITY REQUIRED

•	ANULLI KEMOTKEN					
TANKEN FOUNDAMENT & THOTOLINGHTO	PRIMARY	SECONDARY	TERTIARY	TERTIARY REG'L	TERTIARY MED.CTR.	
TECHNICAL EQUIPMENT & INSTRUMENTS	PKINHK)	SECONDANI				
3. EYE, EAR, NOSE & THROAT  Mosquito clamp Allis forcep Conjuctival scissors Chalazion Forcep Opthalmoscope Eye speculum (lid retractor) Tonometer Otoscope set Head mirror Masal speculum Masal dressing forcep Nasopharyngeal biopsy forcep taryngeal mirror Aural speculum Suction apparatus	000000000000000000000000000000000000000	000000000000000000000000000000000000000	1 1 0 1 1 1 1 1 2 1 1	1 1 1 1 1 1 2 2 2 2 4 2 2 2 1 1	2222222222222	
4. OBSTETRICS & GYNECOLOGY Vaginal speculum Pick up forcep Surgical knife holder Tissue forcep Stitch remover Uterine forcep OB forcep Ovum Forcep Tenaculum Allis forcep Hepler round nose forcep Weighing scale Stethoscope Sphygmomanometer with stand Examining table with stirrup Knife handle Mayo scissor curved Biopsy forcep Urine sound Hegars/ guddle's dilator IUD removal hook Resuscitator Suction pressure unit with stand Obstetrical table, hydraulic Operating roomlight shadowless Instrument table Fetuscope D&C set Delivery set Perineoraphy scissor Perineum light	112211111100000000000000000000000000000	122211112211111111111111111111111111111	224422111441222441212111112221	34663222266133366232422222212322	3466433338813338824342322312432	
5. PEDIATRICS Stethoscope Sphygmomanometer with pedia cuff Infant scale Instrument sterilizer Mebulizer Baby incubator with oxygen limiting device Bottle sterilizer Meurological hammer Oxygen tent Resuscitator, portable Suction apparatus Photo therapy Surgical scissor	000000000000000000000000000000000000000	1 1 1 1 1 1 1 0 1 1 0	2 2 1 1 1 1 1 1 2 1 1 0 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	222241232214	

QUANTITY RE	UNIDED
MUMBILLI KI	BUINED

		•••••••			
TECHNICAL EQUIPMENT & INSTRUMENTS	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED.CTR.
C. SPECIAL PATIENTS AREA 1. RECOVERY ROOM					
Stethoscope	0	0	2	3	4
Sphygnonanometer	0	0	2 2 2 1	3 3 2 2	4
Respirator	0	0	7	3	4 7
Suction apparatus Gomeo suction	0	0	1	2	3
Emerson pump_	ŏ	ŏ	ī	ī	3 1 3 3
Cutdown set 7	Ō	0	1	2 2 2	3
Traecheotomy set	0	0	1	7	ş
Lumbar set 2. Intensive & Coronary Care Unit	0	U	1	2	3
Electromanometer	0	0	0	1	2
Cardioscope	Õ	<u> </u>	Ò	1 2 2 2 1	2 2 4
Central monitoring	0	0	Ò	2	
Respirator	0	0	1	ź	3
Suction apparatus Defibrillator	ŏ	ŏ	i	ī	ž
ECG Machine	Ó	Ó	Ī	Ī	2
Temporary pacemaker	Ŏ	0	Ò	0	ļ
Stathoscope	Ö	. 0	1	0 2 2 1	4 3 2 2 1 2 2
Sphygmomanometer Gomeo suction	ŏ	Ŏ	Ó	ī	î
Laryngoscope	Ö	0	Ŏ	Ī	1
Emerson pump	0	0	ļ	1 2 2 2	1 2 2 2
Cutdown set	0	0	1	2	2
Tracheotomy set Lumbar set	ŏ	ŏ	i	2	2
3. DIALYSIS UNIT					
Dialysing machine set	0	0	`0	0	1
Penal dialysis set	Q	0	Q	0	1
Hemodialysis set	0	0	0	0	1
4. EMDOSCOPY UNIT Fibrooptic esopandoscope	0	0	0	1	2
forward viewing gastroscope	Ŏ	ŏ	0	i	2
Duodenoscope	Ó	o o	0	1	2
Colososcope	0	0	0	1	2
Peritoneoscope Proctosigmoidoscope	Ŏ	ŏ	1	1	2 2 2 2 2 2
5. PULMONARY UNIT	•	· ·	•	-	-
S/QOD - Gas analyzer (PO2 PCO2 PH)	Q	0	0	0	1
Spirosetry	0	0	0	0	1
Ventillators Volume-limited ventilators	ŏ	ŏ	Ŏ	Ŏ	i
Tracheostomy set	Ŏ	Ŏ	0	0	Ī
Bronchoscopy set	0	0	0	0	ļ
Laryngoscopy with laryngoscope blades	. 0	0	0	0	i
D. ANESTHESIOLOGY	1	1	2	3	4
Anethesia apparatus surgical type Anesthist table	1 1	1 2	2 3 1	ى 5	
Anesthesia apparatus, OB type	Ó	i	ĭ	5 2 2	7 3 2
Laryngoscope	i	1	1	2	2

	QUANTITY REQUIRED					
TECHNICAL EQUIPMENT & INSTRUMENTS	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED.CTR.	
E. ANCILLARY SERVICE						
1. LABORATORY						
a. Clinical Microscopy Centrifuge	1	1	1	1	1	
Microscope	ī	ī	1	2	2	
PH opmparator	0	ļ	1	1	1	
Burbers	1	1	i	1	ĭ	
Urinometers b. Microbiology	V	•	•	-		
Candle jar	0	Ò	0	1	1	
Incubator	0	0	0	1	ł	
Oven_	0	0	1	i	i	
Refrigerator Centrifuge	ŏ	ŏ	Ō	Ī	1	
Hot plate	Ò	0	1	1	0	
Trip balance (weighing		•	۸		1	
scale 110 grams)	0	0	0 1	i	i	
Microscope Microbiology	ŏ	ŏ	Ô	. <b>i</b>	ī	
c. Clinical Chemistry	·	-				
Titrator	0	· 0	0	2	1 2	
Spectrophotometer	0 ·	0	5	5	2 2	
Centrifuge	0	ŏ	2 2 0	ī	Ĩ	
Blood PH meter Flame photometer	- 0	0	0	1	1	
Water incubator	Ò	0	ļ	1	1	
Refrigerator	0	0	1	1	1	
Analytical balance	Ŏ	ŏ	ó	i	ī	
Electrophoresis & Densitometer Blood gas analyzer	ŏ	Ŏ	Ŏ	1	1	
d. Hematology				•	•	
Microscope	0	1	0	2	1	
Spectrophometer	0	ŏ	i	i	i	
Coagulation timer (Fibrometer)	ŏ	ĭ	ī	Ī	2	
Blood counter (differential) Microhetocrit centrifuge	Ó	1	1	l	l i	
Pippete washer (for blood pipetter) Staining rack 8	0	1	1	1	1	
Staining rack 8	1	ĭ	Ô	Ó	ō	
Hemoglobinometer	•	•	•	·		
e. Serology Shaking machine (VDRL rotator)	Ō	<u>o</u>	1	1	ļ	
Water bath (Zero) (37 deg & 56 deg.)	0	0	1	1	i	
Microscope	U	U	•	•		
f. 81ood bank Serofugue	0	0	1	1	ļ	
Plasma extractor	. 0	0	0	1	ì	
Riond bank centrifuge	0	0	0 1	1	1	
RH typing view box	0	Ŏ	Ô.	i	ī	
Microscope Blood bank Refrigerator	Ō	0	ì	1	ļ	
Weighing scale	Ŏ	0	Ŏ	1	1	
8P apparatus	0	0	0	1	i	
Stethoscope	0	V	V	•	•	
g. Histotechnic	0	0	1	1	1	
Water bath Microtome	0	Ō	1	1	1	
Cryostat	0	0	0	1	1	
Paraffin oven	0	0	1	1	i	
Hot plate	Ö	Ŏ	2 .	4	6	
Binocular microscope	Ť	-				

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	ACMULTI VEATURE					
ECHNICAL EQUIPMENT & INSTRUMENTS	PRIMARY	SECONDARY	TERTIARY PROV'L.	TERTIARY REG'L	TERTIARY MED.CTR.	
Autopsy Autopsy set (brain knife, scalpels,						
dissecting scissors, intestinal						
scissors, hammer, chisel done			1	1	1	
scissors, bone saw)	ļ	1	1	i	i	
Autopsy table	0	Ŏ	1	i	ī	
Weighing scale	0	Ŏ	ò	i	ī	
Tissue processor	ŏ	ŏ	ĭ	î	ī	
Cadaver refrigerator	V	V	•	•	_	
. Miscellaneous Clinical Lavatory	0	0	0	0	1	
BMR	V	V	•	·		
. RADIOLOGY						
Diagnostic, Radiographic & Flouroscopic Unit						
Flouroscopic Unit	0	0	1	1	1	
Portable x-ray	ŏ	ĭ	Ĭ	1 2	3	
Diagnostic x-ray	ň	ō	Ĭ	1	1	
Mass radiographic x-ray	ŏ	ĭ	Ž	2	3	
Film dryers	ŏ	ī	1 2 2 1	2	3	
Developing hangers	Ŏ	ī	ī	2	2	
Developing tank	Ŏ	. 0	0	Ō	1	
Rapid casette changer	Ŏ	ì	4	1 2 2 2 0 8 2	1 3 1 3 2 1 8 2 1	
Negatoscop8	Ŏ	i	1	2	2	
Caliper	Ŏ	Ō	0	Ō	1	
Ultrasound system	-			_		
. Therapeutic	0	0	0	Q	1	
Cobalt machine	. 0	0	0	0	1	
Deep x-ray unit Huclear medicine			_		1	
Sphygmomanometer	0	Q	0	0	1	
Stethoscope	0	Ō	0	0	1	
Digital isotope calibrator	0	0	0	0	1	
Paraffin oven	0	0	Ó	0	1	
Spectrophotometer	0 0 0	0	0	0	i	
Hytermos heavy duty furnace	0	0	Ŏ	ŏ	i	
Centrifuge	Ŏ	Ů,	0	Ň	î	
Uptake machine	0	V	Ŏ	0	ī	
Cent-O-gra∎	Ŏ	٧		ŏ	i	
Hot plate stirrer	0	0	0	ŏ	Ĭ	
Serological water bath	Ů	V	ŏ	ŏ	Ĩ	
Analytical balance	0	0 0 0 0 0 0	Ŏ	ŏ	i	
Scintillation scanner	ŏ	ň	ŏ	Ŏ	ĺ	
PH meter	Ŏ	ŏ	ŏ	Ŏ	1	
Peam forcep	0	ŏ	Ŏ	Ò	1	
Calculator	v	•	<del>-</del>			
TRANSTOAL POSTOMENT					_	
F. NON-TECHNICAL EQUIPMENT	1	1	2	2	3	
Ambulance		<del>-</del>				

SOURCE: Department of Health (DOH)

### Directory of Member-Hospitals of the Philippine Hospital Association (PHA) By Region and Number of Hospital Beds, 1988

Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
ETRO MANILA					
1. Makati Medical Center	2 Amorsolo St., Makati, Metro Manila	Dr. Constantino P. Manahan Medical Director	815-9911	Tertiary - Private	495
2. Army General Hospital	Port Bonifacio, Makati, Metro Manila	Lt. Col. Diosdado G. Garcia Chief of Hospital	871-581 915-961	Tertiary - Gov't	597
3. St. Clare's Hospital & Mursery	1838 Dian St., Makati, Metro Manila	Dr. Ricardo C. Uirio Medical Birector	331-6511 876-217	Secondary - Private	100
1. National Center for Mental Health	Nueve de Pebrero St., Nandaluyong, Netro Manila	Dr. Brigida S. Buenaseda Chief of Hospital	771-531 700-671	Tertiary - Gov't	5200
5. The Polymedic General Hospital	163 BDSA, Mandaluyong, Metro Manila	Dr. Conrado Potenciano Administrator	707-521 782-076	Tertiary - Private	154
δ. The Medical City General Hospital	San Miguel Ave., Ortigas Center, Mandaluyong, Metro Manila	Dr. Augusto P. Sarziento Medical Director	591-661 590-21	Tertiary - Private	216
7. Risal Medical Center	Shaw Blvd., Pasig, Metro Manila	Dr. Glicerio M. Bustamante Chief of Hospital	665-1240	Tertiary - Gov't	300
3. Cardinal Santos Medical Hospital	Wilson St., Greenhills, San Juan Metro Manila	Dr. Ronaldo A. Asuncion	721-336! 721-3757	Tertiary - Private	1776
9. Vaterous Medical Corporation	166 Pilar St., San Juan, Metro Manila	Or. Jose P. Caedo Jr. S.E.V.P.	705-959 791-398	Tertiary - Private	106
10. St. Martin de Porres Charitable Hospital	70 A. Bonifacio St., San Juan, Metro Manila	Dr. Aleti P. Guzman Quirino Medical Director	772-383	Tertiary = Sov't	001
11. Our Lady of Patina Hospital	i20 Mc Arthur Hi-way, Valenzuela, Metro Manila	Dr. Vicente N. Santos Nedical Director	354-501 361-5935	Tertiary - Private	250
12. U.P. PGH	Taft Ave., Ermita, Manila	Dr. Pelipe A. Estrella Jr. Chief of Hospital	596-061	Tertiary - Gov't	387
il. Medical Center Manila	1122 Gen. Luna St., Erzita, Manila	Dr. Jose Relacion Hospital Director	591-661/590-921 590-021	Tertiary - Private	250
14. A. M. Ty. Clinic	1401 San Marcelino St., Ermita, Manila	Dr. Anita H. Ty Medical Director	506-696	Secondary - Private	100
15. Manila Doctor's Hospital	667 U.N. Avenue., Ermita, Manila	Sis. Mary Philip Galeno Administrator	503-011	Tertiary - Private	137
16. Singian Memorial Hospital	988 Gen. Solano St., San Miguel, Manila	Dr. Evelyn B. Singian Medical Director	472-151 to 55	Tertiary - Private	200
17. Trinity General Hospital	New Panaderos St., Sta. Ana, Manila	Dr. Leticia B. Tolentino President & Administrator	597-061	Tertiary - Private	100
18. Dr. Jose Fabella Memorial Hospital	Lope de Vega St., Sta. Cruz, Manila	Dr. Ricardo B. Gonzales Medical Center Chief	•	Tertiary - Gov't	190
19. Dr. Jose Reyes Mem. Hosp. & Med. Ctr.	Rizal Ave., Sta. Cruz, Manila	Dr. Primo V. Brillantes Jr. Medical Center Chief	711-9491	Tertiary - Gov't	450
20. San Lazaro Hospital	Quiricada St., Sta. Cruz, Manila	Dr. Virgilio Gonzales Chief of Hospital	711-69-79/48	Tertiary - Gov't	900

EXHIBIT IX
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Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
21. Chinese General Hosp. Medical Center	236 Blumeatrit St., Sts. Cruz, Mapila	Dr. Vicente Dy Sua Jr. Administrator	711-41-41	Tertiary - Private	. 550
22. St. Mary's General Hospital	1111 F. Buertas St., Sta. Cruz, Manila	Dr. Antonio G. Clemente Medical Director	711-9793	Secondary - Private	100
23. Metropolitan Bospital	1357 Masangkay Jr. St., Tondo, Manila	Mrs. Rosalind O. Dig Administrator	211-661 211-671	Tertiary - Private	300
24. Galang Medical Center	1240 Batangas St., Sta. Cruz, Madila	Dr. Cecilia T. Galang Nedical Director	219-811 206-422	Tertiary - Private	100
25. Hospital of the Infant Jesus	1556 Laong Lean St., Sempaloc, Manila	Dr. Rolando S. Songco Medical Director	131-2171 .	Tertiary - Private	140
26. St. Jude's General Bospital	Dimasalang St., Sampaloc, Manila	Dr. Ramon Atienza Jr. Medical Director	731-2761	Tertiary - Private	150
21. UST Hospital	Espana Blvd., Sampaloc, Hamila	Dr. Gregorio Moral Medical Director	731-3001	Tertiary - Private	469
28. St. Prancis General Hospital & Mat.	2041 G. Tuason St., Sampaloc, Manila	Dr. Prancisca Santiago Hedical Director	218-091/210-760 216-828	Secondary - Private	100
29. Mary Chiles General Hospital	667 Gastambide St., Sampaloc, Manila	Dr. Rolando Plorendo Nedical Director	141-3941	Tertiary - Private	150
30. Perpetual Help Hospital Manila	1504 Laong Lean St., Sampaloc, Manila	Dr. Jose G. Tamayo Medical Director	731-8177 731-8199	Tertiary - Private	150
31. The Paully Clinic & Hospital	1474 Maria Clara St., Sampaloc, Manila	Dr. Narciso G. Navarro Sr. Nedical Director	731-2901	Tertiary - Private	100
32. PSU NRS Medical Foundation	W. Reyes St., Sampaloc, Manila	Dr. Lilia P. Luna Medical Director	741-3361 741-3465	Tertiary - Private	300
33. De Ocampo Memorial Medical Center	-2921 Wagtahan St., Sampaloc, Manila	Dr. Manuel V. Pamlilio Medical Director	612-786	Tertiary - Private	100
34. Our Lady of Lourdes Hospital	46 P. Sanchez St., Sta. Mesa, Manila	Dr. Karcelino S. Reyes Nedical Director	605-011	Tertiary - Private	200
35. Presidential Security Comm. Hospital	Malacanang Park, Manila	Lt. Col. Jose R. Almoneda Chief of Hospital	403-133	Tertiary - Gov't	100
36. Constabulary General Hospital	BDSA, Camp Crame, Quezon City	Col. Catalino L. Guevarra Chief of Hospital	722-0670	Tertiary - Gov't	150
37. Lungsod ng Kabataan Child. Hospital	Quezon Ave., Diliman, Quezon City	Dr. Lilian V. Lee Medical Director	967-121 969-081	Tertiary - Gov't	200
38. Quiring Memorial Medical Center	Quirino dist., Project 4, Queson City	Dr. Roseo S. Vergara Chief of Bospital	786-821	Tertiary - Gov't	200
39. Hospital og Bagong Lipunan	Bast Ave., Quezon City	Dr. Adriano de la Pas Chief of Bospital	989-900	Tertiary - Gov't	350
40. National Orthopedic Hospital	M. Clara Corner Banawe Sts., Queson City	Dr. Rafael S. Recto Jr. Medical Director	. 711-4276	Tertiary - Gov't	100
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# EXHIBIT IX Page 3 of 10

Regioo/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
41. Mational Childrens' Hospital	266 B. Rodriguez Blvd., Quezon City	Dr. Ma. Isabelita Vital – Gozon Medical Center Chief	705-742	Tertiary - Gov't	250
42. Queson City General Hospital	Seminary Road, Quezon City	Dr. Bdgardo V. Salud Chief of Hospital	986-577 971-728	Tertiary - Gov't	250
43. Quezon City Medical Center	960 Aurora Blvd., Quezon City	Dr. Dominador C. Marcelino Medical Director	921-3451	Tertiary - Private	100
44. Bago Bantay General Hospital	75 Bukidnon St., Bago Bantay, Queson City	Dr. Juanito P. Sioson Medical Director	985-643	Secondary - Private	100
45. St. Luke's Medical Center	279 B. Rodríguez Sr. Blvd., Cathedral Heights, Quezon City P.O. Box 180 Banila	Dr. Arsenio C. Cantos Hospital Director	780-971 722-09D1	Tertiary - Prívate	378
46. Philippine Heart Center for Asia	Bast Avenue, Diliman, Queson City	Dr. Baperanza Isacas - Cabral Chief of Hospital	98D-421 977-631	Tertiary - Gov't	245
47. UERN Memorial Medical Center	Aurora Blvd., Quezon City	Dr. Jose W. Pujalte Hedical Director	612-771	Tertiary - Private	347
48. Capitol Medical Center	Scout Maghasua St., Corner Panay Ave., Quezon City	Dr. Thelma W. Clemente President	991-571/985-877	Tertiary - Private	117
49. United Doctor's Medical Center	6 W. Ramirez St., Quezon City	Dr. Carlos P. Crisostomo Administrator	712-3640 712-3655	Tertiary - Private	100
50. Quezon Institute	B. Rodriguez Blvd., Quezon City	Dr. Pedro Lopez de Leon Executive Director	613-666/613-672	Tertiary - Private	76
51. Delos Santos Medical Center	201 E. Rodriguez Blvd., Quezon City	Dr. Efren V. delos Santos Medical Director	787-011	Tertiary - Gov't	150
52. Veterans Memorial Medical Center	North Ave., Quezon Citz	Dr. Sergio Brillantes Chief of Bospital	986-426	Tertiary - Gov't	<b>16</b> 0 -
53. AFF Medical Center	V. Luna Road, Queson City	Gen. Virgitio L. Masalit Commanding General	921-1801 921-1806	Tertiary - Gov't	1700
54. National Eidney Institute	Quezon Ave., Extension, Quezon City	Dr. Filoteo Alano Chief	998-711	Tertiary - Gov't	50
55. Lung Center of the Phils.	Queson Ave. Ext., Diliman, Queson City	Dr. Calixto A. Zaldivar Chief of Hospital	969-981/992-426	Tertiary - Gov't	303
56. Martinez Memorial Hospital	198 Mabinit St., Caloocan City	Pr. Perdinand A. Martinez Medical Director	238-8f1 234-574	Tertiary - Private	170
57. HCU-F Tanchoco Medical Foundation Hosp.	EDSA, Caloocan City	Hrs. Luningning T. Estanislao Administrator	362-1046	Tertiary - Gov't	231
58. Philippine Air Force General Hospital	Nicholas Air Base, Pasay City	Lt. Co]. Hakaraig San Agustin Chief of Hospital	833-4551	Tertiary - Gov't	1 DQ
58. Hospital de San Juan de Dioz	2772 Roxas Slvd., Pasay City	Dr. Rosendo Roque Medical Director	831-9731	Tertiary - Private	206
6D. Hanila Sanitarium & Hospital	1975 Donada St., Pasay City	Dr. Bien 8. Capule Administrator	574-081 507-360	Tertiary - Private	150

EXHIBIT IX
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Region/ Name of Hospital	Address	Contact Person/Position	Telephone 1	Category	No of Beds
RECION 1					
1. Abra Integrated Provincial Health Office	Bangued, Abra	R. Juvencio Ordona Chief of Hospital	•	Secondary - Gov't	100
2. Efrain Montemajor Memorial Medical Ctr.	Baguio City, Benguet	Dr. Jesus M. del Prado Chief of Hospital	•	Tertiary - Gov't	350
3. Notre Dame de Lourdes Hospital	Gen. Luna Road, Baguio City, Benguet	Sis. Harie Theresa Yusay Administrator	•	Tertiary - Private	100
4. SLU Hospital of the Sacred Heart	Assumption Road, Baguio City, Benguet	Dr. Sabino Macaltao Medical Director	•	Tertiary - Private	143
5. Ilocos Worte Integrated Prov'l. Bealth Office	P. Gomez St., Lacag City, Ilocos Norte	Dr. Nonito Barbero Chief of Hospital	. •	Tertiary - Gov't	100
6. Gorospe General Hospital	Badoc, Ilocom Norte	Dr. Abraham P. Gorospe Medical Director	•	Secondary - Private	130
7. Batac General Hospital	Batac, Ilocos Norte	Dr. Domingo G. Samonte Chief of Hospital	•	Tertiary - Gov't	200
8. Gabriela Silang Integrated Prov'l./	Vigan, Ilocos Sur	Dr. Benjamin Catubay Prov'l, Health Officer	-	Tertiary - Gov't .	100
9. Ilocos Regional Hospital	San Fernando, La Union	Dr. Juanito A. Rubio Officer-In-Charge	-	Tertiary - Gov't	175
10. IPBO (Dona Gregoria Memorial Hospital)	Agoo, La Union	Dr. Ceferino Gonrales Chief of Hospital	•	Tertiary - Gov't	104
11. Corma Hospital Medical Center	Carlatan, San Fernando	Dr. Juan V. Komiya Hedical Director	-	Tertiary - Private	136
12. Bethany Hospital	San Pernando, La Union	Dr. Antonio V. Orencia Nedical Director	•	Tertiary · Private	100
13. Integrated Provincial Health Office	Bantoc, Mt. Province	Dr. Apolinario Pilit Provincial Realth Officer	•	Secondary - Gov't	100
14. IPHO - Gov. Teofilo Sison Mew. Hospital	Arellano St., Dagupan City, Pangasinan	Dr. Jose S. Reyes Chief of Hospital	•	Tertiary - Gov't	241
15. Dagupan Polyclinic & Medical Center	A.P. Fernandez St., Dagupan City, Pangasiban	Dr. Benigno C. Parayao Medical Director	•	Secondary - Private	100
16. Luzon Medical Center Specialists Group	Tapuac, Dagupan City, Pangasinan	Dr. Carlito V. Arenas Medical Director	•	Secondary - Private	110
17. Nazareth General Hospital	203 Perez St., Dagupan City, Pangasinab	Dr. Edmundo G. Exconde Medical Director	•	Secondary - Private	100
18. Pangasinan Medical Center, Inc.	Wable St., Dagupan City, Pangasinan	Dr. Francisco T. de Guzman Medical Director	•	Tertiary - Private	100
19. Eastern Pangasinan District Hospital	Tayug, Pangasinan	Dr. Gudelia M. Jose Chief of Hospital	•	Tertiary - Gov't	150
20. San Carlos General Hospital	San Carlos City, Pangasinan	Dr. Gil P. del Rosario Chief of Hospital	•	Tertiary - Gov't	150
21. Virgen Bilagrosa Medical Clinic	San Carlos City, Pangasinan	Dr. Martin P. Posadas President/Owner	•	Tertiary - Private	124

# EXHIBIT IX Page 5 of 10

Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
REGION II					
1. Isabela Integrated Prov'l Health Office	Ilagan, Isabela	Dr. Evaristo Taguba	•	Tertiary - Gov't	100
2. Cagayan Regional Hospital	Tuguegarao, Cagayan	Dr. Placido Arjonillo Chief of Hospital	•	Tertiary - Gov't	200
3. Regional Mental Hospital	Carig, Tuguegarao, Cagayan	Dr. Crispina C. Penequito Chief of Hospital	•	Primary - Gov't	200
4. Cagayan Valley Sanitarium & Hosp. Ctr.	Mabini, Santiago, Isabela	Br. Loreto R. Garcia Jr. Medical Director	-	Tertiary - Private	100
5. Integrated Provincial Bealth Office	Bulana, Tabuk, Kalinga-Apayao	Br. Romulo D. Cammayo Chief of Hospital	•	Secondary - Gov't	100
6. Integrated Provincial Health Office	Bayoshong, Nueva Vizcaya	Dr. Lazaro B. Mariano Prov'l. Health Officer	•	Tertiary - Gov't	200
7. Integrated Provincial Bealth Office	San Marcos, Cabarroquiz, Quirino	Dr. Ceferino Q. Aguinsldo Chief of Hospital	•	Tertiary - Gov't	100
REGION III		·			7557
1. N. E. General Hospital	Daang Smrile, Cabanatuan City, Nueva Bcija	Br. Rolando E. Tanchoco Chief of Hospital	-	Tertiary - Gov ¹ t	00 ]
2. Bataan, 1PHD	Balanga, Batsan	Dr. Rolando S. Banzon Prov'l. Health Officer	. •	Tertiary - Gov [*] t	200
3. Bulacan IPHD	Malolos, Bulacan	Dr. Amado I. del Barrio Jr. Asst. Prov'l. Health Officer	•	Tertiary - Gov't	200
4. Dr. Paulino Garcia Memorial Research and Medical Center	Mabinit St., Cabanatuan City, Nueva Bcija	Dr. Benjamin V. Morales Chief of Hospital	•	Tertiary - Gov't	300
5. N. E. Good Samaritan General Hospital	Burgos St., Cahanatuan City, Nueva Boija	Dr. Leonides Soriano Medical Director	-	Tertiary - Private	100
6. Arms Station Hospital	Port Magsaysay, Palayan City, Mueva Boija	Col. Benjsmin V. Campomanes Chief of Hospital		Primary - Gov't	[00]
7. Central Luson Regional Hospital	San Pernando, Pampanga	Dr. Rogelio Reyes Chief of Hospital	-	Tertiary - Gov [*] t	250
8. Basa Air Base Station Hospital	Flosidablanca, Pampanga	Lt. Col. Wilfredo D. Ducanay Commanding Officer	-	Secondary - Gov't	100
9. Pampanga Medical Specialists Center	Angeles City, Pampanga	Br. Romec B. Taruc Medical Director	•	Tertiary - Private	100
10. Tarlac Integrated Prov'l. Hosp. Office	Tarlac, Tarlac	Dr. Antonio Lopes Chief of Hospital	•	Tertiary - Gov't.	280
11. Camp Aquino Station Hospital	Tarlac, Tarlac	Lt. Col. Tomas P. Pacis Commanding Officer	•	Primary - Gov't	100
12. Central Luzon Doctor's Hospital	Tarlac, Tarlac	Dr. Constanile D. Quirino Medical Director	-	Tertiary - Private	100
13. Olongapo City General Hospital	Olongapo City, Zambales	Or. Concordia A. Ligad Chief of Hospital	•	Tertiary - Gov't	150
16. Integrated Provincial Health Office	lba, Zambales	Or. Bonifacio C. Punzalan Provil. Health Officer	-	Tertiary - Gov't	150
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# EXHIBIT IX Page 6 of 10

Region/ Wame of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
REGION IV					
1. Batangas Regional Hospital	Iumintang Llaba, Batangas City	Dr. Julio L. Majuga Chief of Hospital	•	Tertiary - Gov't	200
2. Golden Gate General Hospital	Prieto St., Batangas City	Dr. Rodolfo B. Montalbo Medical Director	•	Tertiary - Private	100
3. Saint Patrick's Hospital	Lopez Jaena St., Batenges City	Dr. Abelardo B. Perez Medical Director	•	Tertiary - Private	100
4. Lyceum Hospital	Batangas City	Dr. Vicente A. Pastor Medical Director	•	Tertiary - Gov't	100
5. Fernando Air Base Hospital	100th PAB, Lipa City, Batangas	Lt. Col. David V. Gil Chief of Hospital	•	Tertiary - Gov't	100-
6. Naval Station Bospital	Port San Felipe, Cavite City	Col. Juanito Datoy Chief of Hospital	•	Tertiary - Gov [*] t	100
7. Integrated Prov'l. Health Office	Trece Martirez City, Cavite	Dr. Meliton Quirejero Jr. Chief of Hospital	•	Tertiary - Gov't	150
8. Dr. J. P. Rigal National Hospital & Medical Research Center	Bagong Bayan, Dassarinas, Cavite	Sis. La Croix de Jesus Administrator	•	Tertiary - Private	100
9. De la Salle University Medical Center ,	Pasong Lavin, Dassarinas, Cavite	Dr. Lourdes F. Campos Medical Director	•	Tertiary - Private	100
10. Laguna Integrated Prov'l. Health Office	· Sta. Cruz, Laguna	Dr. Francisco P. Tabia Prov'l. Realth Officer	-	Tertiary - Gov't	150
11. Binan, Doctor's Bospital	Bo. Platero, Binan, Laguna	Dr. Nieva Almedá Olivares Medical Director	•	Tertiary - Private	100
12. Perpetual Help Medical Center - Laguna	Sto. Mino, Binam, Laguna	Dr. Jose G. Tamayo President	•	Tertiary - Private	100
13. San Pablo City District Bospital	San Pablo City, Laguna	Dr. Deogracia G. Kabawalan Chief of Hospital	•	Tertiary - Gov't	100
14. Marinduque Integrated Prov'l. Health Office	Santol, Boac, Marinduque	Dr. Efren J. Labay Officer-In-Charge	-	Tertiary - Gov't	100
15. Mindoro Occidental Provincial Health Office	Mamburao, Mindoro Occidental	Dr. Antonio D. Rebong Prov'l. Health Officer	•	Tertiary - Gov't	100
16. Oriental Mindoro Integrated	Calapan, Oriental Mindoro	Dr. Ernesto B. Valencia Chief of Hospital	-	Tertiary - Gov't	100
17. Culion Sanitarius	Culion, Palavan	Dr. Paul Evangelista Chief of Hospital	•	Tertiary - Gov't	60C -
18. Quezon Integrated Prov'l. Health Office	Lucena City, Quecon	Dr. Manuel Salazar Officer-In-Charge	•	Tertiary - Gov't	200
19. Medical Center, Lucena	Lucena City, Quezon	Dr. Emeterio D. Calagan Jr. Medical Director	-	Tertiary - Private	150
20. Tayabas Community Hospital	Tayabas, Quezon	Dr. Avelino A. Obispo Medical Director	•	Tertiary - Private	135
21. Rosblon Provincial Hospital	Odiongan, Romblon	Dr. Lilia Arboleda Officer-In-Charge	•	Tertiary - Gov ¹ t	100
22. Antipolo Immaculate Conception Medical Center	Cicumferential Road, Antipolo, Risal	Dr. Godofredo G. Castaneda Medical Director	•	Tertiary - Private	150
23. Rigal Integrated Prov'l. Health Office	Tomas Claudio St., Horong, Rigal	Dr. Bayani Estacio Chief of Hospital	•	Secondary - Gov't	100 -
		<del>-</del> <del></del>			272

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Region/ Name of Hospi	tal Address	· Contact Person/Position	Telephone #	Category	Wo of Beds
REGION V	•	•			
]. Albay Integrated Provil. Heal	th Office Legaspi City, Albay	Dr. Jose W. Perpando Chief of Hospital	•	Tertiury - Gov't	150
2. Ago General Hospital	Rizal St., Legaspi City	Dr. Damaceno J. Ago Medical Director	•	Tertiary - Private	180
3. Immaculate Conception Hospita	l Risal St., Daraga, Albay	Dr. Alberto R. Baylon Medical Director	•	Tertiary - Private	150
4. Camarines Worte Integrated Pr Health Office	rov'l. Duet, Camerines Norte	Dr. Westor P. Santiago Officer-In-Charge	•	Tertiary - Gov't	100
5. Bicol Region Bospital	C. Pequens, Waga City, Camarines Sur	Dr. Felipe S. Del Rosario Officer-In-Charge	•	Tertiary - Gov't	250
6. Bicol Sanitarium	San Pedro, Cabusao, Camarines Sur	Dr. Josefins P. Giagoría Officer-In-Charge	-	Secondary - Gov't	200
7. Sorsogon Prov'l. Health Offic	e Sorsogon, Sorsogon	Dr. Arturo R. Perdigon Chief of Hospital	•	Tertiary - Gov't	1D0
8. Integrated Prov'l. Health Off	ice Virac, Catanduanes	Dr. Carmen S. Urgel Chief of Hospital	-	Tertiary - Gov't	200
9. Masbate Provincial Bospital	Nasbate, Hasbate	Dr. Florenda P. Almero Chief of Hospital	•	Tertiary - Gov't	100
RBGION VI					1430
]. Dr. Rafael S. Tumbokom Mem'l.	Hospitel Mabinit St., Kelibo, Aklan	Dr. Bduardo Heraldo Prov'l. Health Officer	•	Tertiary - Gov't	100-
2. Saint Gabriel Bospital	G. Pastrano St., Kalibo, Akl	lan Dr. Ramon R. Legaspi Premident	•	Tertiary - Private	100
3. Angel Salazar Mem'l. General 1	Hospital San Jose, Antique	Dr. Justo M. Rios Jr. Provincial Health Officer	•	Tertiary - Private	100
4. Capiz Emmanuel Hospital	Rozas Ave., Rozas City, Capi	is Dr. Dolores B. Abadiano Administrator	•	Tertiary - Gov't	100
5. St. Anthony Hospital	San Roque Est., Royas City, Capis	Sis. Lourdes Sabidong Administrator	-	Tertiary - Private	100
6. Western Visayas Medical Center	r Manduriao, Iloilo City	Dr. Arturo G. Ardena Chief of Hospital	•	Tertiary - Gov't	300
7. West Visuyas State Univ. Hosp.	. La Paz, Iloilo City	Or. Avelino R. Paderna Administrative Asst.	•	Tertiary - Private	150
8. Iloilo Octor's Hospital	Mest Ave., Molo, Iloilo City	Dr. Roland Padilla Medical Director	•	Tertiary - Private	300
9. St. Paul Hospital of Iloilo	General Luna St., Iloilo Cit	y Sis. Marie Noel, SPC Administrator	•	Tertiary - Private	158
10. Iloilo Bission Hospital	Jaro, Hoile City	Dr. Dorothy B. Pulido Medical Director	•	Tertiary - Private	150
II. Iloilo Integrated Prov'l. Beal	Ith Office Pototon, Iloilo	Dr. Cleto Cordero Officer-In-Charge	•	Tertiary - Gov't	150
12. Corszon Locsin Montelibano Mem	a'l. Hosp. Lacson St., Bacolod City, Wegros Occidental	Dr. Teodoro P. Motus Chief of Hospital	•	Tertiary - Gov't	300
13. Bacolod Sanitarium & Hospital	Taculing, Bacolod City, Hegros Occidental	Dr. Francisco T. Geslani President	•	Tertiary - Private	100

EXHIBIT IX Page 8 of 10

Region	/ Name of Bospital	Addrens	Contact Person/Position	Telephone #	Category	No of Beds
14. The Doctor's Ho	ospital Inc.	Aquino Drive, Bacolod City, Negros Occidental	Dr. Rodolfo L. Jacson Medical Director	•	Tertiary - Private	150
15. Dr. Pablo O. To	orre Sr., Memorial Homp.	North Drive, Bacolod City	Mrs. Panela T. Henares Administrator	-	Tertiary - Private	200
16. Our Lady of Mer	rcy Bospital	Mandalagan, Bacolod City, Negros Occidental	Dr. Francisco M. Peria Medical Director	•	Tertiary - Private	100
17. St. Anne's Medi	ical Center	Hestensia, Cadiz City, Negros Occidental	Dr. Jose P. Pernandez Administrator	•	Tertiary - Private	100
REGION VII		•				21920
1. Gov. Celestino	Gallares Mem'l. Hosp.	Miguel Parras St., Tagbilaran City, Bohol	Dr. Renato R. Velasco Chief of Hospital	•	Tertiary - Gov't	228
2. Leona Lim Memor	rial Hospital	Valencia, Bohol	Dr. Concepcion D. Tan Medical Director	•	Secondary - Private	. 120
3. Cebu City Medic	cal Center	Rizal Ave., Cebu City	Dr. Francisco B. Diy Sr. Chief of Hospital	•	Tertiary - Gov [†] t	200
4. Hetro Cebu Comm	nunity Hospital	Osmena Blvd., Cebu City	Dr. Felix Vícuna Jr. Medical Director	•	Tertiary - Private	150
5. Cebu Doctor's H	Hospital Inc.	Osmena Blvd., Cebu City	Dr. Potenciano V. Larrazabal Jr. Medical Director	•	Tertiary - Private	227
6. Southern Island	ds Nedical Center	Cebu City	Dr. Quintin T. Derikito Chief of Hospital	•	Tertiary - Gov't	350
7. Cebu (Velez) Ge	eneral Bospital	F. Ramos St., Cebu City	Dr. Josefina Poblete Medical Director		Tertiary - Private	200
8. Chong Hua Hospi	ital	Cebu City	Dr. Alejo A. Tiu Medical Director	•	Tertiary - Private	160
9. Perpetual Succo	or Hospital	Gorordo Ave., Cebu City	Sr. Zeta Rivero Administrator	•	Tertiary - Private	100
10. Sacred Health H	dospital	Urgello St., Cebu City	Dr. Rebecca Gucor Medical Director	•	Tertiary - Private	20G
11. Vicente Gullas	Memorial Hospital	Banilad, Mandaue City, Cebu	Dr. Juan Manderaso Administrator	•	Tertiary - Private	:00
12. Wegros Oriental Health Office	Integrated Provincial	Piapi, Dumaguete City, Negros Oriental	Dr. Michael P. Enadescic Provincial Health Officer		Tertiary - Gov't	250
	rity Medical Center	Laguna, Dumaquete City, Negros Occidental	Dr. Wicanor O. Rosario Administrator/Medical Director	•	Tertiary - Private	100
14. Siquijor Provin	cial Hospital	Signijor, Signijor	Dr. Bonifacio Espeleta Officer-In-Charge	.•	Primary - Government	100
REGION VIII						277:
1. Eastern Samar I Health Office	ntegrated Provincial	Borongan, Eastern Samar	Dr. Arturo A. Dubongco Chief of Hospital	•	Tertiary - Gov't	:00
2. Northern Samar Health Office	Integrated Provincial	Catarman, Northern Samar	Dr. John E. Kan Chief of Hospital	•	Tertiary - Gov't	190
3. Samar Integrate	d Prov'l. Health Office	Catbalogan, Wester Samar	Dr. Juanito dela Cruz Officer-In-Charge	•	Tertiary - Gov't	100
4. Tacloban City No	edical Center	Tacloban City, Morthern Leyte	Dr. Arcadio L. Galapon Officer-In-Charge	•	Tertiary - Gov't	250

	Region/ Hame of Hospital	Address	Contact Person/Position	Telephone #	Category	No of Beds
5.	Bethany Hospital	Real St., Tacloban City, Northern Leyte	Dr. Julio E. Dolosico Nedical Director	•	Tertiary - Private	125
6.	Divine Word Hompital	Imelda Ave., Tacloban City Northern Samar	Sis. Imelda O. Halili Administrator	•	Tertiary - Private	100
1.	Carigara, District Hospital	Carigara, Northern Leyte	Dr. Catalino T. Sipaco Chief of Hospital II	•	Secondary - Gov't	100
8.	Vestern Leyte Provincial Hospital	Baybay, Northern Leyte	Dr. Linda Theresa T. Astorga Chief of Bospital III	•	Tertiary - Gov't	100
9.	Ormoc General Hospital	Cogon, Combado, Ormoc City	Dr. Conrado H. Hostelano Chief of Hospital	•	Tertiary - Gov't	125
10.	Southern Leyte Integrated Provincial Bealth Office	Mansin, Southern Leyte	Dr. Buenaventura Jostol Chief of Hospital	•	Tertiary - Gov't	100 7.550
REGI	ON IX					100
i.	Sulu Integrated Provincial Health Office	Jolo, Sulu	Dr. Nelsa L. Amin Provincial Health Officer	•	Tertiary - Gov't	100
2.	Sulu Sanitarius .	Jolo, Sulu	Dr. Emerlinda A. Pelinio Chief of Hospital	-	Primary - Gov't	120_
3.	Southern Hospital Jolo APP	Camp Astorias, Jolo, Sulu	Lt. Col. Augusto S. Sajor MC Commanding Officer	-	Secondary - Private	100
4.	Zamboanga del Morte Integrated Provincial Health Office	Dipolog City, Zamboanga del Norte	Dr. Carmencita P. Icao Provincial Health Officer	•	Tertiary - Gov't	100
5.	Zamboanga Regional Hospital	Evangelista St., Zamboanga del Sur	Dr. Leoncio C. Noche Chief of Hospital	•	Tertiary - Gov't	200 -
6.	Mindanao Central Sanitarius	Zamboanga City, Zamboanga del Sur	Dr. Gerardo M. Aguino Chief of Hospital	.•	Tertiary - Gov't	450
1.	Camp Navarro General Hospital	Camp Navarro, Calarian Zamboanga City, Zamboanga del Sur	Col. Benedicto M. Mina Commanding Officer	•	Secondary - Gov't	200-
8.	Brent Hospital	RT Lim Blvd., Zamboanga City Zamboanga del Sur	Dr. Araceli B. Aranez Medical Director	•	Tertiary - Private	100
9.	Aurora District Health Services	M. Roxas St., Poblacion Aurora, Zamboanga del Sur	Dr. Samaon I. Tapodoc Chief of Hospital III	•	Secondary - Gov't	150
10	. Zamboanga del Sur Integrated Prov'l. Hemlth Office	Pagadian City, Lamboanga del Sur	Dr. Ricardo U. Ochotorena Provincial Health Officer	-	Tertiary - Gov't	150
REG	ION I					
1.	City General Hospital & Medical Center	Butuan City, Agusan del Norte	Or. Cletc F. Bacarro Chief of Hospital	•	Tertiary - Gov't	1:0-
. 2.	Butuan Integrated Provincial Health Office	Libertad, Butuan City Agusan del Norte	Dr. Charito Alfoneo – Awiten Provincial Health Officer		Tertiary - Gov't	100-
3.		Butuan City, Agusan del Norte	Dr. Manuel O. Estacio Medical Firector	•	Tertiary - Private	100,.
4.	Manuel J. Santos Hospital	Montilla Blvd., Butuan City. Agusan del Norte	Dr. Abraham A. Villareal Hospital Director	•	Tertiary - Private	100
٤.	Agusan del Sur Integrated Provincial Health Office	Patin-ay, Prosperidad Agusan del Sur	Dr. Paz Abrajano Busa Officer-In-Charge	•	Tertiary - Gov't	100
6.	Bukidnon Integrated Provincial Bealth Office	Nalabalay, Bukidnon	Dr. Angel Macapayad Officer-In-Charge	•	Tertiary - Gov't	100
1.	Mayor Bilarion R. Ramiro, Sr. General Eospital	Mindog, Ozamis City, Misamis Occidental 97	Dr. Jose C. Villanueva, Jr. Chief of Hospital	•	Tertiary - Gov [*] t	125

EXHIBIT IX
Page 10 of 10

•••	Region/ Name of Hospital	Address	Contact Person/Position	Telephone #	Category	Na of Beds
8.	Medina General Bospital	Osabis City, Bisabis Occidental	Dr. Rico M. Hedina Hedical Director	-	Tertiary - Private	100 .
9.	Evangelista Station Hospital	Apovel Subd., Bulva Cagayan de Oro City, Missais Occidental	Dr. Enrique Golitao Commanding Dfficer	•	Secondary - Gov't	100
10	. J. Borja Memorial City Bospital	Cagayan de Oro City, Misamis Oriental	Dr. Leo R. Generalso Chief of Hospital	•	Secondary - Gov*t	100
11	Cagayan de Medical Center	Traso Brother St., Cagayan de Oro City, Misania Oriental	Dr. Francisco L. Oh Medical Director	•	Tertiary - Private	100
12	. Northern Mindanao Regional Training Hospital	Recto Ave., Cagayan de Oro City Misamis Oriental	Dr. Gabriel C. Malbas Chief of Hospital	•	Tertiary - Gov't	200
13	. Surigao del Norte Integrated Provincial Health Office	Surigao City, Surgicao del Morte	Dr. Pedro S. Pastor Provincial Health Officer	-	Tertiary - Gov't	150
REG	ION XI					11.5
l.	Davao del Morte Integrated Provincial Health Office	Apokon, Tagum, Davao del Norte	Dr. Romulo Busuego Chief of Hospital	• •	Tertiary - Gov't	100
2.	Christ the King Hospital	Tagum, Davao del Morte	Sis. Lydia S. Pancho Administrator	•	Tertiary - Private	160
3.	Davao Regional Medical & Training Hosp.	Bajada, J. P. Laurel Ave., Davao City, Davao del Sur	Dr. Asuncion A. Parsan Chief of Hospital	•	Tertiary - Gov't	350
4.	Davao Doctor's Hospital	I18 E-Quirino Ave., Davao City Davao del Sur	Dr. Jose L. Gantioqui Jr. Medical Director	•	Tertiary - Private	150
5.	San Pedro Hospital of Davao City	Guerrero St., Davao City Davao del Sur	Sister Anne Marie Salomia Administator	-	Tertiary - Private	250
6.	Davao del Sur Integrated Provincial Bealth Office	Lapu-lapu St., Digos, Davao del Sur	Dr. Prospero Padilla Officer-In-Charge	•	Tertiary - Gnv't	100
1.	Davao Oriental Provincial Hospital	Mati, Davao Orienta]	Dr. Gil Montilla Provincial Bealth Officer	•	Tertiary - Gov't	100
8.	Mati Baptist Bospital	Mati, Davao Oriental	Dr. Severo B. Arnao Medical Director	•	Tertiary - Private	100
9.	South Cotabato Integrated Provincial Health Office	Marbel, Coronadal, South Cotabato	Dr. Emeterio Aves Provincial Health Officer	•	Tertiary - Gov't	100
REGI	ON XII		;			100
1.	Lanso del Morte Provincial Hospital	Baroj, Lanao del Norte	Dr. Avelino C. Grospe Provincial Health Officer		Tertiary - Gov't	100 ~
2.	Bautista Clinic & Hospital	Tacurong, Sultan Eudarat	Dr. Perfecto C. Bautista Medical Director	•	Tertiary - Private	100
3.	Sultan Kudarat Doctor's Hospital	Takurong, Sultan Eudarat	Dr. Soledad T. Eugenio Medical Director		Tertiary - Private	125
1.	Cotabato Regional Hospital	Cotabato City, Maguindanao	Or. Gani Haulana Chief of Hospital	•	Tertiary - Gov't	200
5.	Notre Dame Hospital of School of Midvifes	Rosary Heights, Cotabato City, Maguindanao	Sis. Maria Imaculado Aquino, O.P. Administrator	•	Tertiary - Private	150
			•			675

Current Size of the Philippine Market for Medical Equipment and Supplies By Commodity and By Main Product Divisions and Groups In Value Terms, In Thousand US Dollars

DIVISION / GROUP / COMMODITY	IMPORTS	LOCAL PRODUCTION	EXPORTS	LOCAL CONSUMPTION
A. EQUIPMENT & INSTRUMENTS	12,716.6	134.2	59.0	12,791.8
1. Medical, surgical and veterinary instruments (including opthalmic instruments) and appliances ( except electro-medical apparatus); parts thereof	8,789.2	83.3	52.1	8,820.4
Optical examining and diagnostic instruments, apparatus and appliances (opthalmoscope, retinoscope, etc.), nes Optical examining and diagnostic instruments, apparatus and appliances (opthalmoscope, retinoscope, etc.), nes	6.2 27.7	0.0 52.1	0.0 52.1 0.0	6.2 27.7 61.1
o Hypodermic needles  o Brushes of a kind specialized for medical, surgical or veterinary purposes	61.1 0.0 8,560.7	0.0 0.0 31.2	0.0 0.0	0.0 8,591.9
O Other medical, surgical and veterinary instruments and appliances, nes O Parts of items falling under this group	133.5	0.0	0.0	133.5
2. Dental instruments and appliances ,	609.5	0.0	0.0	609.5
o Brushes specially designed for use with a dental drill engine o Other dental instruments and appliances	13.6 595.9	0.0	0.0	13.6 595.9
3. Hechano-therapy appliances; massage appparatus; artificial respiration, ozone/oxygen/aerosol therapy or similar apparatus; breathing appliancess	425.3	6.9	6.9	425.3
O Therapeutical apparatus	81.7 50.4	0.0 6.9	0.0 6.9	81.7 50.4
o Massage apparatus o Breathing appliances o Parts and accessories of instruments and appliances falling under this group	253.1 40.1	0.0 0.0	0.0 0.0	<b>453.1</b> 40.1
4. Electric apparatus for medical purposes and radiological apparatus	2,641.7	44.0	0.0	2,685.7
o Electrocardiographs	31.4 23.8	0.0 40.6	0.0 0.0	31.4 64.4
<ul> <li>Artificial incubators for babies</li> <li>X-ray apparatus and apparatus based on the use of radiations from radioactive substances</li> </ul>	2,273.5 0.0	0.0	0.0 0.0	2,273.5 0.0
o X-ray dark room construction materials o Other electric apparatus for medical purposes and radiological apparatus, nes	313.0	3.4	0.0	316.4
5. Clinical thermometers	250.9	0.0	0.0	250.9
6. Mobile radiological units	0.0	0.0	0.0	0.0

			IMPORTS	LOCAL PRODUCTION	EXPORTS	LOCAL CONSUMPTION
В.	s u	PPLIES :	7,709.3	7,186.1	277.0	14,618.4
	1.	Madding/gauze/bandages and similar articles, impregnated or coated with pharmaceutical substance or put up in retail packing for medical or	3,539.1	3,218.8	3.4	6,754.5
	•	wadding (excluding absorbent cotton, etc., bleached or dyed or otherwise finished), gauze, bandages & similar articles, medicated Wadding (excluding absorbent cotton), sterilized or put up in retail packing for medical or surgical purposes, unmedicated Gauze and bandages, sterilized or put up in retail packing for medical or surgical purposes, unmedicated (excluding cotton gauze) Adhesive plasters, unmedicated, in retail packing for medical or surgical purposes Sterile absorbent cotton  Sterile absorbent cotton  Plaster-coated fracture bandages  Cotton specialties, sterile or non-sterile (including cotton- tipped applicators, cotton pellets, non-absorbent cotton, etc.)  Poultices	909.3 15.9 1,376.7 491.8 35.3 65.2 644.9	1.4 0.0 2.0 488.3 2,727.1 0.0 0.0	1.4 0.0 2.0 0.0 0.0 0.0 0.0	909.3 15.9 1,376.7 980.1 2,762.4 65.2 644.9 0.0
	2.	Other pharmaceutical goods	1,874.4	0.0	0.0	1,874.4
	••	Sterile surgical catgut and similar suture materials  Sterile laminaria and laminaria tents  Sterile absorbable surgical hemostatics  Opacifying preparations used in x-ray examinations and diagnostic reagents designed to be administered to the patient  Blood grouping reagents  Dental cement and other dental fillings  First-aid boxes and kits	920.6 0.0 2.7 320.8 448.7 169.7 11.9	0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0	920.6 0.0 2.7 320.8 448.7 169.7 11.9
	,	taboratory, hygienic and pharmaceutical glassware, whether or not graduated or calibrated; glass ampoules	1,334.9	857.6	0.0	2,192.5
		o Ampoules o Flasks o Other laboratory, medical, surgical, dental and hygienic glassware, nes	276.5 32.2 1,026.2	0.0 0.0 857.6	0.0 0.0 0.0	276.5 32.2 1,883.8
		Hygienic and pharmacoutical articles (including teats), of unhardened vulcanized rubber, with or without fittings of unhardened rubber	842.8	925.6	68.0	1,700.4
	••	Rubber bags for ice, hot water and oxygen Rubber droppers Bottle nipples, of unhardened vulcanized rubber Rubber syringes and bulbs thereof Other hygienic, medical or surgical articles of unhardened vulcanized rubber, nes	51.5 28.4 250.6 0.0 512.3	0.0 0.0 67.0 0.0 858.6	0.0 0.0 67.0 0.0 1.0	51.5 28.4 250.6 0.0 1,369.9
	5.	and the second s	98.5	1,326.5	205.6	1,219.4
		Artificial teeth of all materials Artificial dentures and bridges of all materials Orthopedic shoes wholly or mainly of leather or composition leather Other orthopedic appliances, artificial parts of the body, fracture appliances, pacemakers and other appliances to compensate for a defect or disability, nes	9.8 0.0 0.0 88.7	447.2 21.7 0.0 857.6	183.9 21.7 0.0 0.0	273.1 0.0 0.0 946.3
	6.	Hygienic medical and surgical articles, whether enameled or not (bedpans, urinals, irrigators, instrument & catheter trays, pus & solution basin, infant baths, etc.)	0.0	857.6	0.0	857.6
		o Hygienic, medical and surgical articles, of iron or steel o Hygienic, medical and surgical articles, of copper o Hygienic, medical and surgical articles, of aluminum	0.0 0.0 0.0	285.9 285.9 285.9	0.0 0.0 0.0	285.9 285.9 285.9
	7.	Hearing aids	19.6	0.0	0.0	19.6

EXHIBIT X

	IMPORTS	LOCAL PRODUCTION	EXPORTS	LOCAL CONSUMPTION
C. FURNITURE	562.9	38.5	0.9	600.5
	**********	*********	************	
<ol> <li>Madical, dental, surgical and veterinary furniture (operating tables, hospital beds with mechanical fittings); dentist's and similar chairs with elevating, rotating or reclining movements; parts of the foregoing articles</li> </ol>	555.1	10.9	0.9	\$65.1
o Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of wood	0.0	10.0	0.0	10.0
o identifiable parts of medical, dental, surgical or veterinary furniture, of wood	0.0	0.0	0.0	0.0
o Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital bads, medicine cabinets), of metal	500.1	0.0	0.0	500.1
o Identifiable parts of medical, dental, surgical or veterinary furniture, of metal	0.0	0.0	0.0	0.0
o Medical, dental, surgical & veterinary furniture (e.g. operating tables, hospital beds, medicine cabinets), of plastic or other materials	16.9	0.0	0.0	16.9
o identifiable parts of medical, dental, surgical or veterinary furniture, of plastic or other materials	0.0	0.0	0.0	0.0
<ul> <li>Dentist's and similar chairs with machanical, elevating, rotating or reclining movements, of wood</li> </ul>	0.0	0.0	0.0	0.0
o Identifiable parts of dentist's and similar chairs with mechanical, elevating, rotating or reclining movements, of wood	0.0	0.0	0.0	0.0
o Dantist's and similar chairs with machanical, elevating, rotating or reclining movements, of metal or other materials except wood	38.1	0.9	0.9	38.1
2. Invalid carriages, fitted with means of mechanical propulsion, whether motorized or not or otherwise mechanically propelled	7.8	27.6	0.0	35.4
o Invalid carriages, fitted with means of mechanical propulsion, whether motorized or not	0.5	21.8	0.0	22.3
o Invalid carriages, other than motorized or not or otherwise mechanically propelled	1.3	5.8	0.0	13.1
	••••••	•••••	•••••	••••••
TOTAL.	20,988.8	7,358.8	336.9	26,010.7
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	**********			

EXMIBIT XI Page 1 of 3

Size-of-Market Forecasts from	1988 to 2000,	In Thousand US Dollars
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DIVISION / GROUP / COMMODITY CODE	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
A, EQUIPMENT & INSTRUMENTS	12,791.8	13,047.6	13,308.6	13,574.8	13,982.0	14,401.5	14,833.5	15,278.5	15,736.9	16,523.7	17,349.9	18,217.4	19,128.3	20,084.7
<ol> <li>Medical, surgical, veterinary, incl. opthalmic</li> </ol>	8,820.4	8,996.8	9,176.7	9,360.3	9,641.1	9,930.3	10,228.2	10,535.1	10,851.1	11,393.7	11,963.4	12,561.5	13,189.6	13,849.1
872.02-01 872.02-03 872.02-04 872.02-05 872.02-09 872.02-09	6.2 27.7 61.1 0.0 8,591.9 133.5	6.3 28.3 62.3 0.0 8,763.7 136.2	6.5 20.8 63.6 0.0 8,939.0 138.9	6.6 29.4 64.8 0.0 9,117.8 141.7	6.8 30.3 66.8 0.0 9,391.3 145.9	7.0 31.2 68.8 0.0 9,673.1 150.3	7.2 32.1 70.9 0:0 9,963.3 154.8	7.4 33.1 73.0 0.0 10,262.2 159.5	7.6 34.1 75.2 0.0 10,570.0 164.2	8.0 35.8 78.9 0.0 11,098.5 172.4	8.4 37.6 82.9 0.0 11,653.4 181.1	8.8 39.4 87.0 0.0 12,236.1 190.1	9.3 41.4 91.4 0.0 12,847.9 199.6	9.7 43.5 95.9 0.0 13,490.3 209.6
2. Dental	609.5	621.7	634.1	646.8	666.2	686.2	706.8	728.0	749.8	787.3	826.7	868.0	911.4	957.0
872.01-01 872.01-02	13.6 ' 595.9	13.9 607.8	14.1 620.0	14.4 632.4	14.9 651.3	15.3 670.9	15.8 691.0	16.2 711.7	16.7 733.1	17.6 769.7	18.4 808.2	19.4 848.6	20.3 891.1	21.4 935.6
3. Mechano-therapy	425.3	433.8	442.5	451.3	464.9	478.8	493.2	508.0	523.2	549.4	576.8	605.7	636.0	667.8
872.03-01 872.03-03 872.03-04 872.03-05	81.7 50.4 253.1 40.1	83.3 51.4 258.2 40.9	85.0 52.4 263.3 41.7	86.7 53.5 268.6 42.6	89.3 55.1 276.6 43.8	92.0 56.7 284.9 45.1	94.7 58.4 293.5 46.5	97.6 60.2 302.3 47.9	100.5 62.0 311.4 49.3	105.5 65.1 326.9 51.8	110.8 68.4 343.3 54.4	116.4 71.8 360.5 57.1	122.2 75.4 376.5 60.0	128.3 79.1 397.4 63.0
4. Electro-medical	2,685.7	2,739.4	2,794.2	2,850.1	2,935.6	3,023.7	3,114.4	3,207.8	3,304.0	3,469.2	3,642.7	3,824.8	4,016.1	4,216.9
774.11-00 774.12-00 774.22-00 774.21-00 774.23-00	31.4 64.4 2,273.5 0.0 316.4	32.0 65.7 2,319.0 0.0 322.7	32.7 67.0 2,365.3 0.0 329.2	33.3 68.3 2,412.7 0.0 335.8	34.3 70.4 2,485.0 0.0 345.8	35.4 72.5 2,559.6 0.0 356.2	36.4 74.7 2,636.4 0.0 366.9	37.5 76.9 2,715.5 0.0 377.9	38.6 79.2 2,796.9 0.0 389.2	40.6 83.2 2,936.8 0.0 408.7	42.6 87.3 3,083.6 0.0 429.1	44.7 91.7 3,237.8 0.0 450.6	47.0 96.3 3,399.7 0.0 473.1	49.3 101.1 3,569.7 0.0 496.8
5. Clinical thermometer (874.54-01)	250.9	255.9	261.0	266.3	274.2	282.5	290.9	299.7	308.7	324.1	340.3	357.3	375.2	393.9
6. Mobile radiological units (785.23-00)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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DIVISION/COMMODITY	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
B. SUPPLIES	14,618.4	14,910.8	15,209.0	15,513.2	15,978.6	16,457.9	16,951.7	17,460.2	17,984.0	18,883.2	19,827.4	20,818.7	21,859.7	22,952.7
1. Wadding, gauze, etc.	6,754.5	6,889.6	7,027.4	7,167.9	7,383.0	7,604.5	7.832.6	8,067.6	8,309.6	8,725.1	9,161.3	9,619.4	10,100.4	10,605.4
541.91-01 541.91-02 541.91-03 541.91-04 541.91-05 541.91-06 541.91-07 541.91-08	909.3 15.9 1,376.7 980.1 2,762.4 65.2 644.9 0.0	927.5 16.2 1,404.2 999.7 2,817.6 66.5 657.8 0.0	946.0 16.5 1,432.3 1,019.7 2,874.0 67.8 671.0	965.0 16.9 1,461.0 1,040.1 2,931.5 69.2 684.4 0.0	993.9 17.4 1,504.8 1,071.3 3,019.4 71.3 704.9 0.0	1,023.7 17.9 1,549.9 1,103.4 3,110.0 73.4 726.1 0.0	1,054.4 18.4 1.596.4 1,136.5 3,203.3 75.6 747.8 0.0	1,086.1 19.0 1,644.3 1,170.6 3,299.4 77.9 770.3 0.0	1,118.6 19.6 1,693.7 1,205.7 3,398.4 80.2 793.4 0.0	1,174.6 20.5 1,775.3 1,266.0 3,568.3 84.2 833.0 0.0	1,233.3 21.6 1,867.3 1,329.3 3,746.7 88.4 874.7	1,295.0 22.6 1,960.6 1,395.8 3,934.1 92.9 918.4 0.0	1,359.7 23.8 2,058.7 1,465.6 4,130.8 97.5 964.4 0.0	1,427.7 25.0 2,161.6 1,538.9 4,337.3 102.4 1,017.6 0.0
2. Pharmaceutical goods	1,874.4	1,911.9	1,950.1	1,989.1	2,048.8	2,110.3	2,173.6	2,238.8	2,305.9	2,421.2	2,542.3	2,669.4	2,802.9	2.443.0
5541.99-01 5541.99-02 5541.99-03 5541.99-04 5541.99-05 5541.99-06 5541.99-07	920.6 0.0 2.7 320.8 448.7 169.7	939.0 0.0 2.8 327.2 457.7 173.1 12.1	957.8 0.0 2.8 333.8 466.8 176.6 12.4	976.9 0.0 2.9 340.4 476.2 180.1 12.6	1,006.3 0.0 3.0 350.6 490.4 185.5	1,036.4 0.0 3.0 361.2 505.2 191.1 13.4	1,067.5 0.0 3.1 372.0 520.3 196.8 13.8	1,099.6 0.0 3.2 383.2 535.9 202.7 14.2	1,132.6 0.0 3.3 394.7 552.0 208.8 14.6	1,189.2 0.0 3.5 414.4 579.6 219.2 15.4	1.248.6 0.0 3.7 435.1 608.6 230.2 16.1	1,311.1 0.0 3.8 456.9 639.0 241.7 16.9	1,376.6 0.0 4.0 479.7 671.0 253.8 17.8	1,445.5 0.0 4.2 503.7 704.5 266.4 18.7
3. Lab./ medical glassware	2,192.5	2,236.4	2,201.1	2,326.7	2,396.5	2,468.4	2,542.4	2,618.7	2,697.3	2,832.1	2,973.8	3,122.4	3,278.6	3,442.5
665.81-01 665.81-02 665.81-09	276.5 32.2 1,883.8	282.0 32.8 1,921.5	287.7 33.5 1,959.9	293.4 34.2 1,999.1	302.2 35.2 2,059.1	311.3 36.3 2,120.8	320.6 37.3 2,184.5	330.3 38.5 2,250.0	340.2 39.6 2,317.5	357.2 41.6 2,433.4	375.0 43.7 2,555.1	393.8 45.9 2,682.8	413.5 48.2 2,816.9	434.1 50.6 2,957.8
4. Articles of rubber	1,700.4	1,734.4	1,769.1	1,804.5	1,858.6	1,914.4	1,971.8	2,031.0	2,091.9	2,196.5	2,306.3	2,421.6	2,542.7	2,669.8
628.10-01 628.10-02 628.10-03 628.10-04 628.10-09	51.5 28.4 250.6 0.0 1,369.9	52.5 29.0 255.6 0.0 1,397.3	53.6 29.5 260.7 0.0 1,425.2	54.7 30.1 265.9 0.0 1,453.7	56.3 31.0 273.9 0.0 1,497.4	58.0 32.0 262.1 0.0 1,542.3	59.7 32.9 290.6 0.0 1,588.6	61.5 33.9 299.3 0.0 1,636.2	63.4 34.9 306.3 0.0 1,685.3	66.5 36.7 323.7 0.0 1,769.6	69.9 38.5 339.9 0.0 1,858.0	73.3 40.4 356.9 0.0 1,950.9	77.0 42.5 374.7 0.0 2,048.5	80.9 44.6 393.5 0.0 2,150.9
5. Orthopedic	1,219.4	1,243.8	1,268.7	1,294.0	1,332.9	1,372.8	1,414.0	1,456.5	1,500.1	1,575.2	1,653.9	1,736.6	1,823.4	1,914.6
899.62-01 899.62-02 899.62-03 899.62-09	273.1 0.0 0.0 946.3	278.6 0.0 0.0 965.2	284.1 0.0 0.0 984.5	289.8 0.0 0.0 1,004.2	298.5 0.0 0.0 1,034.3	307.5 0.0 0.0 1,065.4	316.7 0.0 0.0 1,097.3	326.2 0.0 0.0 1,130.3	336.0 0.0 0.0 1,164.2	352.8 0.0 0.0 1,222.4	370.4 0.0 0.0 1,283.5	388.9 0.0 0.0 1.347.7	408.4 0.0 0.0 1,415.1	428.8 0.0 0.0 1,485.8
6. Articles of metal	857.6	874.8	892.2	910.1	937.4	965.5	994.5	1,024.3	1,055.0	1,107.8	1,163.2	1,221.3	1,282.4	1,346.5
697.51-01 697.52-01 697.53-01	285.9 285.9 285.9	291.6 291.6 291.6	297.4 297.4 297.4	303.4 303.4 303.4	312.5 312.5 312.5	321.8 321.8 321.8	331.5 331.5 331.5	341.4 341.4 341.4	351.7 351.7 351.7	369.3 369.3 369.3	387.7 387.7 387.7	407.1 407.1 407.1	427.5 427.5 427.5	448.8 448.8 448.8
7. Hearing aids (899.61-09)	19.6	20.0	20.4	. 20.8	21.4	22.1	22.7	23.4	24.1	25.3	26.6	27.9	29.3	30.8

EXHIBIT XI Page 3 of 3

DIVISION/CONKODITY	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
C. FURNITURE	600.5	612.5	624.8	637.3	656.4	676.1	696.3	717.2	738.8	775.7	814.5	855.2	898.0	942.9
1. Medical, dental, etc.	565.1	576.4	587.9	599.7	617.7	636.2	655.3	675.0	695.2	730.0	766.5	804.8	845.0	887.3
821.21-01 821.21-02 821.21-03 821.21-04 821.21-05 821.21-06 821.21-09 821.21-11 821.21-12	10.0 0.0 500.1 0.0 16.9 0.0 0.0 0.0 38.1	10.2 0.0 510.1 0.0 17.2 0.0 0.0 0.0 38.9	10.4 0.0 520.3 0.0 17.6 0.0 0.0 0.0 39.6	10.6 0.0 530.7 0.0 17.9 0.0 0.0 0.0	10.9 0.0 546.6 0.0 18.5 0.0 0.0 0.0	11.3 0.0 563.0 0.0 19.0 0.0 0.0 0.0	11.6 0.0 579.9 0.0 19.6 0.0 0.0 0.0	11.9 0.0 597.3 0.0 20.2 0.0 0.0 0.0 45.5	12.3 0.0 615.2 0.0 20.8 0.0 0.0 0.0	12.9 0.0 646.0 0.0 21.8 0.0 0.0 0.0	13.6 0.0 678.3 0.0 22.9 0.0 0.0 0.0	14.2 0.0 712.2 0.0 24.1 0.0 0.0 0.0 54.3	15.0 0.0 747.8 0.0 25.3 0.0 0.0 0.0 57.0	15.7 0.0 785.2 0.0 26.5 0.0 0.0 0.0
2. Invalid carriages	35.4	36.1	36.8	37.6	38.7	39,9	41.1	42.3	43.6	45.7	48.0	50.4	52.9	55.6
785.31-00 785.31-20	22.3 13.1	22.7 13.4	23.2 13.6	23.7	24.4 14.3	25.1 14.7	25. 9 15.2	26.6 15.6	27.4 16.1	28.8 16.9	30.2 17.8	31.8 18.7	33.3 19.6	35.0 20.6
TOTAL	28,010.7	28,570.9	29,142.3	29,725.2	30,616.9	31,535.4	32,481.5	33,456.0	34,459.6	36,182.6	37,991.7	39,891.3	41,885 9	43,980.2



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