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depicts the Department of Health in its current thrust on countryside health development: training *hilots* and encouraging the use of medicinal herbs where these are deemed adequate, educating people on the importance of environmental sanitation, building more rural health units, immunizing children from some communicable diseases these, among others, have brought the DOH closer than ever to millions of Filipinos in the countryside. Its family planning and nutrition projects have reached more and more mothers and children, leading them toward healthier lives.

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His Excellency President Ferdinand E. Marcos Malacañang, Manila

Sir:

I have the honor to report to you our accomplishments in 1977. In all its programs – communicable disease control, maternal and child health, family planning, nutrition, and environmental sanitation being the most important of them – the Department of Health made significant gains during the year.

The year also saw the inauguration of many new rural health units, including those in Batac, Ilocos Norte and Tolosa, Leyte, enhancing further the government's restructured health care delivery system which is a major component of the socio-economic development program under the New Society. Through the restructured health care delivery system, more than 70 percent of Filipinos living in the countryside, hitherto often neglected, have began enjoying the benefits of medical care.

In no other period has the government spread health services than in recent years. We hope to deliver more in the years ahead.



Very truly yours,

CLEMENTE S. GATMAITA . M.D., M.P.H. Secretary of Health

'March 6, 1978



Introduction

The wealth of a nation is the health of its people. Health programs that underscore the immense value of a healthy citizenry in national development efforts are cornerstones of many civilized governments in the world today.

Medical science has virtually controlled any known diseases afflicting man and yet, these medical benefits have barely made a dent on the lives of the world's poor. The high cost of medical services has placed these services far beyond the reach of the poor.

In the Philippines, medically depressed areas may be found in the rural areas where economic development is still at a very low level. The inhabitants categorized as the marginal and low-income groups have very little, if at all, access to medical services. Because of the lack of material rewards medical practitioners shy away from these barrios and clinics are few and far between.

To this crying need for better medical services and facilities in the rural areas, the Philippine government – primarily through the Department of Health – has continuously addressed itself. Thus in the Four-Year Development Plan that ended in 1977, a chapter on health and nutrition stated: "The importance of improved health is far-reaching. Better health can reduce birth rates since lower infant mortality reduces the number of births required to ensure a family of a certain number reaching adulthood. This, in turn, reduces the waste of resources involved in bearing and rearing children who do not reach their economically productive years. Likewise lower morbidity should increase the productivity of labor."

Under this program priorities included: (1) health development, improvement of hospitals and hospital administration and coordination between government and private health efforts; (2) improvement of preventive and medical care services throughout the country; (3) medical assistance; and (4) better nutrition.

As enunciated by President Marcos himself when he issued guidelines on budget spending at the start of the year, medical care services should be made available to people in the provinces, especially those in depressed areas. Thus a certain portion of the national government's budget on social services should be allocated for this purpose to improve the quality of life of the people.

In 1977, the Department of Health received P987,822,000 from the national budget, a 3.6 percent share of the total. This went to the DOH's various activities from simple administration and support services to its disease control programs. Particularly, the DOH started off the year with the following major aims:

- 1. Provision of adequate health services in the rural areas.
- 2. Alleviation of current disease problems.
- 3. Promotion of maternal and child health.
- 4. Promotion of a healthful environment.

Its various health programs on family planning, nutrition, rural health, disease control, maternal and child health, environmental sanitation, dental health, medical services, food and drug, health education, manpower development, vaccine production and laboratory services, contributed toward a satisfactory state of the nation's health for 1977. Significantly, there was no major disease outbreak during the year.

But communicable diseases continued to stalk a sizable number of the population despite increased surveillance and control. Among the most prevalent were pneumonia, TB, whooping cough, influenza, diptheria, cholera, dysentery, typhoid fever, and gastro-enteritis.

In the country today, leading causes of mortality are communicable diseases: pneumonia, P.T.B., schistosomiasis and bronchitis. And also for morbidity: bronchitis, influenca, gastro-enteritis, and P.T.B. The continuing and stepped-up control drives of the DOH, coupled with the increasing awareness of the population on health problems and their growing cooperation to control, if not eradicate them, will hopefully help to reduce major health problems in the coming years as the country pushes toward development.

Already traditional health indicators showed general improvement over the previous years. Crude death rate was 10.5 as against 10.6 in 1976. Infant mortality rate was 73.0 as against 74.0 in 1976. During the next few years, these are expected to decrease further. By 1987, crude death rate would only be 8.8 and infant mortality 56. Average life expectancy, on the other hand, will increase from the present 60 years to 62.6 in 1982 when Philippine population should have hit the 50-million mark.

The same improvement was also reflected in the maternal mortality rate: 0.91 in 1977 as against 2.49 registered in 1976.

The restructured health care delivery system has brought benefits to the rural areas where more than 70 percent of the population live. With more rural health units under construction, and the fielding of more manpower including paramedical workers, rural health is expected to improve in the years ahead. In the urban areas which still form the locus of the country's industrial development, health care will continue to be a major concern.



Spreading Health Care



In old as well as in new towns and settlements in the country today, rural health centers have risen where before only ill-equipped and decrepit units were to be found, if at all. During recent years the government has increasingly spread the benefits of at least the most basic medical care to the barrio folks who, for decades, had been relying on quacks.

With the restructured health care delivery system of the government, implemented since 1973, rural people now have better chances for a healthier life. In fact, rural health units and barangay health stations, offering services in family planning, nutrition, and primary health care, have become popular in and vital to a typical Philippine barrio.

A primary component of the RHCDS is the organization of rural health units, the major

responsibility of the Project Management Staff. It was created in October 1974 through PD No. 568 as an offshoot of a loan agreement between the Philippine government and the International Bank for Reconstruction and Development for the Philippine population project. Among its objectives:

- 1. To implement a new system of health service delivery in the rural areas.
- To construct, equip, and furnish facilities and provide additional services for health and family planning programs of the Department of Health.
- 3. To design and implement methods for future research and evaluation of health service design, technical procedures and health manpower requirements.

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More specifically, the building of 12 regional training centers, 205 new rural health uhits and about 615 barangay health stations is called for under the program. Along with construction activities, the program has provided for the training and retraining of manpower to run the clinics. These include midwives, rural health physicians, public health nurses, rural sanitary inspectors, public health dentists, municipal health officers, and rural health midwives. As of December 1977, 1,242 MHOs, 1,386 PHNs, 4,054 RHMs, and 1,780 RSIs were given in-service training. On the other hand, 6,378 new midwives received pre-service training.

In 1977, 315 new barangay health stations were built in remote areas of the country even as those already existing were renovated and made more functional. These stations, occupying the base of the health facilities pyramid, serve an average population of 5,000. Manned by rural health midwives, they deliver primary care services.

These same services are also offered by rural health units, the next higher health facility in the pyramid. During the year in review, 82 such RHU's were established at the poblaciones of municipalities, staffed by health teams, each team composed of the rural health physician, public health nurse, and the rural sanitary inspector. Depending upon the density of population of a municipality, strength of these health teams varies.

Already under construction by the year's end were 126 more such RHU's and another 102 are being planned.

For optimum use of available resources, the RHU delivery system has three levels of health care services: primary, secondary, and tertiary.

The primary level is made up of the barangay

health stations. Here patients are usually barangay referrals. If the rural health midwife, who mans the BHS assisted by barangay health technicians could no longer handle a case, it is elevated to the secondary level which is the RHU-main health center where the patient is attended to by a public health nurse. Should the PHN think the illness is beyond her competence, it is only then that the municipal health officer — whose care comprises the tertiary level — takes over.

In this way, hospital or clinic bed demands are minimized through early diagnosis of the case, out-patient consultations, home deliveries, and home care.

The public health dentist, on the other hand, moves around from the BHS to the RHU-MHC, and often at schools attending to children.

These health facilities, whether new or just renovated, are provided with supplies and modern equipment to make health care delivery more effective, from plain office supplies to drugs and vehicles. In 1977 alone, logistical expenses totaled more than P10 million.

Part of these went to the installation of radio communications equipment in all regional health offices, making communication easier between them and the DOH. This new facility did away with the need for telegrams and long-distance phone calls, resulting in approximately 70 percent in savings that would otherwise have gone into paying for those telegrams and phone calls.

Among developing countries, the Philippines has come closest to providing its population with adequate health services and facilities. Still much more remains to be done. And that World Bank loan in 1974 has surely helped the DOH – through the PMS – get things done to make the most basic health services available to majority of Filipinos.

Rural Health Practice Program



New nursing and medical graduates get valuable training in the barrios.

Since 1974 the rural health practice program has served to beef up existing health manpower in the country, to supplement university training and experience, and to provide new medical and nursing graduates a better perspective of their role in the socio-economic development program of the government.

In 1977 the RHPP fielded 1,097 doctors and 10,580 nurses to remote areas, bringing the total to about 22,000 in four years of implementation. Before they were sent there, they first attended orientation seminars jointly sponsored by the DOH and the Civil Service Commission. Some participants showed reluctance in accepting assignments to difficult and remote areas but overall, most of them were eager for the experience awaiting them in the barrios.

They received a stipend of P250 a month which will be increased to P300 in 1978 even as plans are afoot to reduce the period of rural service from six to four months starting next year.

The RHPP hopes to impress upon these new professionals the need for more of their kind to serve in the so-called medically depressed areas, with the necessary government incentives, of course.



Operation Timbang: identifying the malnourished.

Maternal and Child Health

The "Decade of the Filipino Child", proclaimed by President Marcos, commenced in earnest this year. It hinged on a principle of the Philippine Child and Youth Welfare Code: "The Child is one of the most important assets of the nation. Every effort should therefore be exerted to promote his welfare and enhance his opportunities for a useful and happy life."

For its part, the Division of Maternal and Child Health undertook several activities in maternal and child welfare. Its participation in the immunization program was highlighted by a DTP vaccine trial it conducted in Batangas with help from the Bureau of Research and Laboratories staff. This study, significant as well for many developing countries where basic health services cannot cope with the immunization of all qualified children, proved serologically that the two-dose vaccination scheme with a six-month interval is already an adequate protection against diptheria, pertussis and tetanus.

Another study held in Bacolod City further confirmed the effectiveness of ORESOL in treating child victims of diarrhea. Containing 3.5 g. of sodium chloride, 2.5 g. of sodium bicarbonate, 1.5 g. of potassium chloride and 20 g. of glucose dissolved in a liter of potable water, the mixture is taken orally to rehydrate patients. Because of this effective drug, the national oral rehydration program was launched in April in Bacolod City. The objective: to make ORESOL easily available to mothers in every home through broad community participation. Subsequently, a national team for oral rehydration, created by Secretary Gatmaitan, visited several pilot areas in different regions, conferring with local health officials and helping them implement the program.

Another very important project with Bohol as pilot area is the MCH/family planning project. Its aim: to show that family planning can best be implemented through a welldeveloped MCH program.

But among its projects, nothing has drawn as much attention in the mass media as *hilot* training. Approximately 40,000 of these traditional birth attendants are still responsible for some 50 percent of all births in the country today. Because of their traditional importance in the barangays, these *hilots* could not be disregarded and the government adopted a more realistic attitude toward them: train them to make them participate fruitfully in community health programs. Because of their number, they could significantly supplement the health manpower in the rural areas.



In June 1977 Secretary Gatmaitan and the WHO Headquarters in Geneva received the final report on "A Study of Traditional Birth Attendants in the Philippines" which was made possible by a World Health Organization (WHO) grant.

Hilots are trained by the RHU nurse/midwife. Each class composed of 10 hilots must complete 30 hours after which the participants are given UNICEF midwifery kits and record books where they would log down births they had attended.to. In 1977 a total of 4,000 hilots completed the training course.

With official recognition now given them, though they are still considered outside of health teams, hilots are gradually being involved in a wide range of community activities including assistance in improving birth registration and prevention of tetanus neonatorum. Indeed they could very well respond to local community health demands, particularly for mother and child care.



Corollary to this is the program on traditional and herbal medicine. Following the example of the People's Republic of China where tree ears, fungi, wild spices and herbs, dehydrated seeds and leaves, among others, compose the Chinese pharmacopoeia, there is no reason why the use of traditional medicinal plants should not be encouraged here, especially with the country's abundance in them. Thus, liaison has been established with the UPS and NSDB, along with other interested organizations, for the purpose of publicizing them to popularize their use.

A midwifery scholarship program for cultural minorities, on the other hand, aims to provide trained health manpower for this often neglected segment of the Philippine population, ordinarily not reached by rural health services network. A joint project of the DOH and UNICEF, it awarded 115 such scholarships during the period 1976-77 to members of minority groups distributed as follows:

Group	No. of Awardees
Ifugao	22
Bontoc	12
Muslim	17
Tausog	7
Manobo	6
Mandaya	6
Maranao	6
Kankanai	5
Bagobo	4
Maguindanao	3
Others (Igorot, Bengue	et,
Ibaloi, Ilongot, Mansak	ka,
Isinay, Aeta, Tiruray,	
Lapacno, Samal, Subar	no,
Bulalaan, Sulod and	
Montesque	27

Recruitment of 150 scholars more for the 1978 program (to begin in June) started in late 1977.

Family Planning Program



Even before the government passed the Population Act in 1971 (later revised by Presidential Decree No. 79) calling for "a national program of family planning involving both public and private sectors," the Department of Health had already launched a year earlier its own family planning project with the creation of the National Family Planning Office. The NFPO thus presaged later intensified population growth control campaigns in the country.

Since that pioneering year, strides have been scored toward greater family planning consciousness among the people with the DOH's own project contributing a no mean share. In fact, the NFPO has become the largest implementing agency of the national population program. Among its goals and objectives:

1. To integrate family planning services into the total health program.

- 2. To provide family planning information, education and motivation during preand post-natal periods and to make available family planning services to all eligible women desiring to limit or space their pregnancies during preand inter-conception periods.
- 3. To improve maternal and child health through proper spacing of childbirths and thus lower infant morbidity and mortality.
- 4. To contribute to the lowering of the country's birth rate in order to achieve a balance between resources and population.

Family planning clinics were established throughout the country, with emphasis in the rural areas where rapid population growth has been its traditional setback. Today these clinics have multiplied to about 3,000 -- a sort of mecca for newlyweds, especially. In 1977 alone, 16 new clinics were opened and five UP-PGH ones were turned over to the NFPO, which are all capable of delivering comprehensive family planning services including the training of physicians in male surgical sterilization.

To make these clinics more responsive to the needs of the rural population, they now also attend to maternal and child care. During the year in review, 976,444 pre-natal consultations were entertained and 371,400 home deliveries attended to. And more mothers received tetanus toxoid and more children given health care in 1977 than in the previous year. In carrying out these responsibilities, nurses, midwives and the traditional *hilots* proved indispensable in the absence of doctors in so-called medically depressed areas.

They also played important roles in family planning through their administration of birth control methods. In 1977 these health workers underwent further training in order to maximize the delivery of family planning services. Training activities during the year consisted of the following:

Type of Training No. of Participants

۱.	Special course for senior	
	nurses/midwives of the	
	hospital-based family	
	planning project (3 weeks)	90
2.	Special course for nurses/	
	midwives on comprehensive	
	family planning services	
	(2 months in Bohol)	20
3.	Training course for health	
	extension workers (HEW) and	
	HEW group leaders (4 weeks)	161
4.	Pill dispensing course for barrio	
	health station midwives	
	previously trained on the	
	restructured health care	
	delivery system (5 days)	1,528
5.	Basic course on pill dispensing	.,
	after RHCDS training	113
6.	Pill dispensing course for	115
	HEWs midwives	22
7		22
7.	Basic course in FP for rural	
	health unit personnel	15

8.	Skills training in FP for	
	nurses and midwives of	_
	the DOH (IUD insertion)	51
9.	Seven-day course for	
	back-up physicians	30
10.	Vasectomy training for	
	MHOs	27
11.	Seminar-workshop for RFAU	
	and regional health training	
	center chiefs	66
	TOTAL	2,123

The eighth training activity (one-month skills training in IUD insertion for nurses and midwives) was a pilot project proposed by the NFPO and later endorsed by the Population Commission. However, it was found out that four weeks did not suffice to give the trainees the necessary competence in IUD insertion. The subsequent training courses will run for two weeks more.

On the other hand, the project on health extension workers gained initial success in the pilot provinces of Cagayan, Mindoro Oriental, Negros Occidental, Western Samar, and Bukidnon. Trained in April, the 161 HEWs began work in these areas in June and by December, they had already achieved their project's two goals: increasing acceptance of family planning and improving the method mix (i.e., greater acceptance of more effective methods over less effective ones). During this period, family planning acceptance increased by 50 percent and condom and the rhythm methods declined in favor of IUD and voluntary surgical contraceptions: vasectomy for men and ligation for women.

This shift toward more effective methods was also reflected in the national level. Some 150,000 new acceptors were reported in 1977 even as previous users were maintained and program defaulters remotivated through an intensified information campaign.

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House-to-house campaign: motivating mothers on family planning.

Hospitals now also offer family planning services. This hospital-based FP project involved 126 DOH hospitals in 1977: 25 teaching-training, 31 provincial, and 70 emergency hospitals. Initially successful, this project has drawn the interest of such funding agencies as POPCOM and the USAID so that more hospitals are expected to be included in the delivery system in the coming years.

In line with this project, 144 physicians were trained in voluntary surgical contraception during the year. Subsidized surgical contraception was also made available in 155 hospitals and an assistance of P10,000 each extended to 101 hospitals during the year to improve their service facilities for surgical contraception.

The census made in July 1976 revealed a population of 43.2 million Filipinos. In 1970 Philippine population (36.7 million) represented one percent of the world's total or around 1.8 percent of the Asian total. From 1969-75 an average annual population growth rate was registered at 2.8 percent. By 1987 this should have been reduced to 2.1 percent through the national program of family planning, and in this the DOH-NFPO will figure prominently in the state's role of achieving and maintaining "population levels most conducive to the national welfare" as provided for in the new Philippine Constitution.



Nutrition

Any report on the national nutrition program of the government would not be complete without mention of the National Nutrition Service of the DOH. Its role in improving the nutritional status of Filipinos has certainly boosted the overall program being coordinated by the National Nutrition Council which, in the words of the UN, has been "the most comprehensive programme of applied nutrition at the village yet undertaken by any country."

For one, there are the mothercraft centers of the NNS which teach mothers about the nutritional needs of infants and children. Considered as the primary out-of-school venues for nutrition education, these centers also teach them how to prepare appropriate diet from local food sources since commercially available products with imported ingredients are quite expensive.

Mothercraft centers provide supplemental feeding to pregnant and lactating women and also to needy infants and children. As of 1977, 769 such centers have been established throughout the Philippines. During the year 74,017 mother classes were held aside from the nutrition seminars attended by some 7,675 industrial women workers.

Through "Operation Timbang," the NNS has been able to identify malnourished pre-school children. Launched by the NNC in 1974, a nationwide survey made in March this year revealed that some 30.6 percent of the 4.4 million children weighed were suffering from moderate and severe degrees of malnutrition with serious deficiencies in iron, vitamin A, iodine, and protein, especially. Recent studies have established that traditional weaning foods like rice gruel are nutritionally deficient. Thus the need to develop more nutritious substitutes to avert early malnutrition among infants. In such researches has the NNS been involved over the past few years.

In goiter control, the NNS likewise fared well in 1977, benefitting several thousands of people suffering from this disease. Carried out mainly through iodized oil injections and the introduction of the use of iodized salt among households in areas where this disease has been prevalent, the program continues to receive assistance from the UNICEF.

Nutrition being decisive in deciding the nation's health in the coming years, the NNS will surely remain a DOH mainstay.





Disease Control

The Department of Health has intensified the prevention and control of diseases, both communicable and non-communicable, not only by carrying out control measures specifi to a disease but also by health education, immunization, and environmental sanitation.

Along with control measures, the DOH has also continued its task of collecting valuable health statistics: births, deaths, and illnesses. This enables the government to make comparisons against previous data, if the health of Filipinos has improved over the year of the set o

Expanded Program of Immunization



Secretary Gatmaitan launches the expanded program on immunization.

Launched July 12, 1976 the expanded program on immunization (EPI) has boosted children's resistance to diphtheria, tetanus, pertussis, and tuberculosis. In 1977 alone, a total of 324,000 infants with ages ranging from three to 14 months were vaccinated with DTP and BCG.

In January and February, the first period of yearly immunization drives, 188,000 infants (3-8 months old) received DTP-1. In June

and July, the second and last period for the year, 136,000 infants (9-14 months old) were given DTP-2/BCG, only 74 percent of the January-February performance. What accounted for the less number of children immunized during the second period were flu epidemics and bad weather in target areas, forcing health teams to defer work. In some cases, change of assignments of regional immunization officers derailed the schedule as there was nobody to take their places inmediately. Regions III and IV reported as high as 95 percent accomplishment while Regions IV-A, V and XII could only manage 53 percent.

The major task of implementing EPI falls upon the rural health units with the National Immunization Committee responsible in developing policies, programs and plans on:

- 1. Epidemiological studies of communicable diseases.
- 2. Standardization of operational techniques of the immunization program.
- 3. Effective use of cold chain (plastic jugs, cold boxes and refrigerators) through a practical system of logistics suited to local needs and resources.
- 4. Effective health education, information and communication methods.

Vaccine production is an integral component of the Expanded Program of Immunization along with a regular evaluation of the program, to pinpoint problem areas and devise solutions.

In 1977 vaccine production reached 1,900,000 doses consisting of: Diptheria, 325,000 doses; tetanus toxoid, 200,000 doses; and BCG, 1,374,800 doses.

It was also a busy year for seminars and workshops, highlighted by the Philippines sending a delegation to a WHO-sponsored seminar-workshop on immunization held in Kuala Lumpur, Malaysia.

On the local front, there were three interregional seminars held during the year. One in Zamboanga with 120 participan'ts from Regions IX, X, XI, XII. Another in Iloilo City with 130 participants from Regions V, VI, VII and VIII. And a third in Angeles City with 100 participants from Regions I, II and III.

Studies done by regional immunization officers on measles (for Region I), Polio (for Regions I, VII and IX), diptheria (for Metro Manila), and tetanus (for Regions II and IX) were presented during these seminars.

To develop the cold chain, eight refrigerator technicians from Regions V, VI, VII, IX, X and XII were trained at the Alabang laboratories.

Problems were not confined in finances (e.g., limited travel allowances that made for poor technical supervision in far-flung barrios). Some field health personnel confused EPI with the separate but complementing national tuberculosis program which give BCG vaccinations to children up to six years old. Most of all, there was the problem of rural parents not fully appreciating the importance of immunization for their children, an indication of the need for the intensification of educational efforts.

Malaria Eradication

Malarial areas have continuously shrunk over the years. Three decades ago, malaria was endemic almost everywhere in the Philippines. Today this has been limited to only a few provinces with about 4.6 million people living in areas where eradication measures are necessary.

These measures fall under the responsibility of the Malaria Eradication Service. Its principal operations in 1977 were:

- 1. DDT spray in affected areas.
- 2. Epidemiological operations including diagnosis and treatment of cases.
- 3. Research with entomological emphasis.
- 4. Supportive activities that included health education.

In 1977, a total of 564,617 houses were sprayed with DDT. More than one million persons received presumptive treatment while another 77,853 treated radically.

Forty AFP personnel and 96 more from the General Health Services were trained in malaria microscopy. On the other hand, 296 MES personnel participated in an in-service training in malaria eradication. On the local level, barangay leaders in Romblon also received the same training.

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Research uncovered, in Palawan, a fourth malaria vector known as Anopheles balabacensis.

At present there are 36 malaria field units in Luzon, Visayas and Mindanao. Eradication efforts have been made difficult by lack of transport in affected areas, migration of people from malàrious to non-malarious areas, and the resistance of the vector to some insecticides.



Trainees from ASEAN countries: identifying the vector.



DDT spray: eradicating the vector.

Tuberculosis Control

Second to pneumonia as the country's leading cause of deaths, TB has tolled heavily not only in terms of human lives but also upon the national economy, causing an average annual loss of about P300 million including costs of treatment. But had it not been for the national TB control program, these losses could have been more.

This program has three basic components:

- 1. Case finding through the establishment of both static and mobile chest clinics, and microscopy centers.
- 2. Treatment of selected cases through ambulatory chemotherapy and hospitalization.
- 3. Prevention through BCG vaccines and health education.

There are now 37 chest clinics, 12 of them static and 25 mobile. On the other hand, microscopy centers now total 411 which were established with assistance from WHO/UNICEF.

Total beds available to TB patients consist of 2,856 mainly provided by the Quezon Institute and the nine provincial TB pavilions of the Philippine Tuberculosis Society.

The immunization program, carried out primarily by the rural health units, was also boosted in 1977 with WHO/UNICEF assistance, vaccinating 1,700,000 children with BCG, 300,000 short of the target.

The TB Control Services has adopted sputum microscopy as its primary approach in case finding. In 1977, 125,349 sputum microscopy tests were performed among symptomatics with 11,356 of them yielding bacteriologically positive results. In addition, 390,375 X-ray tests put 27,837 patients on the suspects' list.

Treatment is now almost entirely carried out through ambulatory chemotherapy. From January to December 10,439 confirmed cases were placed under the dual regimen program with the RHU's and chest clinics managing. In addition, 16,374 X-ray positive cases were placed under single regimen.

It has been estimated that out of some 30,000 patients under active treatment, 65 percent may be said to have been satisfactorily cured and only five percent fatal. The rest either got lost, dropped out, or transferred.



Sputum microscopy: the primary approach now used in TB case-finding.

Schistosomiasis Control

The year saw 226.44 hectares of snail-infested areas drained as part of the schistosomiasis control program, a multi-agency undertaking counting on joint efforts of the Department of Health, Department of Public Works, Transportation and Communications, Department of Local Government and Community Development, National Irrigation Administration, Department of Agriculture, and Department of Education and Culture. With each of them working on a program combining educational, medical, biological, and agroengineering methods to stamp out this fatal disease, control efforts received funding boost in 1977 from the Asian Development Bank, International Bank for Reconstruction and Development, and the Japanese International Cooperation Agency.

Overall supervision and implementation of the program lies with the Schistosomiasis Control Council, created on February 16, 1976 through PD No. 893, with the secretary of health as chairman. Before this, only the DOH's Schistosomiasis Control and Research Service dealt with this public health problem. Today, the SCRS supports the council through its research.

It was only on January 26, 1977 when SCC's board of directors representing all memberagencies became formally organized. This was followed by the executive committee, formed February 4, and the subsequent recruitment of the technical staff which enabled the council to carry out its functions, despite lack of other personnel. Thus, not long after, a five-year schistosomiasis control program was drawn up, together with specific programs for Bohol and Sorsogon, two of the 22 endemic provinces. In addition, the council began work on the health education component of the National Irrigation Systems Improvement Project (NISIP - I) in Leyte. When completed it will become the prototype for health education activities in the other endemic provinces.

But even as this is being finalized, health education activities went on, emphasizing environmental sanitation and health consciousness. Using posters, brochures and teaching guides, health educators visited a number of endemic areas during the year.

Already a specialized hospital for schistosomiasis control started rising up during the year in Palo, Leyte with the support of President Marcos himself. Expected to be completed in 1978, the hospital, aside from treating cases, will conduct research to develop more effective controls of the disease which now affects some 600,000 people, mostly farmers and their families. Thus, because it hampers agricultural productivity, the disease has assumed considerable socio-economic significance for the country. In fact, the disease costs about P230 million annually, in terms of man-days lost to gainful pursuits, treatment and deaths.

There were four approaches employed in the control of schistosomiasis during the year: (1) case finding and treatment; (2) environmental sanitation; (3) snail control; and (4) health education. These were carried out in the provinces of Mindoro, Sorsogon, Bohol. Keyte, Samar, Agusan, Davao, Bukidnon, Cotabato, Lanao, and Zamboanga.

Rural health units there examined 34,778 persons out of whom 12,466 (35.84 percent) were found afflicted with schistosomiasis. Subsequently 4,303 were given treatment. In environmental sanitation, 493 water-sealed toilets and 22 footbridges were built, 27 water pumps installed, and more stray animals believed to be carriers of the vector snails, controlled. More snail colonies were discovered during this period. In Leyte alone, 256 snail colonies were found, comprising an estimated area of 232.89 hectares in 105 barrios. Under the NISIP II covering the provinces of Zamboanga del Sur, Davao del Sur, Misamis Occidental, and North Cotabato, 106 colonies

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were discovered with an estimated area of 1931.89 hectares.

In other endemic provinces, ocular surveys have started identifying more snail colonies. The Bureau of Public Works released P1 million during the year to finance the topographic survey of the endemic towns in Bohol, Sorsogon, Lanao, North, Bukidnon, Cotabato North, Zamboanga South and Agusan South. It will subsequently construct small-scale drainage systems in areas where these are necessary.

The council, operating on a P1 million budget, coordinated eight projects with six of them already ongoing including:

1. Mindoro Integrated Rural Development

Project. This is an IBRD-assisted five-year project that began in 1976. Its schisto control component covers the endemic towns of Naujan, Victoria, Pola, and Socorro.

- 2. Second Davao del Norte Irrigation Project. The schisto control component of this ADB-assisted project will be fully implemented in 1978. The implementation plan was submitted to ADB only in August 1977 and depending upon the bank's recommendations, it will be revised.
- 3. NISIP-I is a five-year project designed to improve irrigation facilities in Leyte.

A summary of an ocular malacological survey conducted this year under the NISIP-II follows:

Provinces	Towns Covered	Endemic Barrios	No. of Snail Colonies	Estimated area of Snail Colonies (Has.)
Zamboanga				
Sur	4	28	65	855.42
Davao Sur	2	4	5	952.15
Misamis Occidental	1	3	9	63.04
Cotabato North	2	8	27	61.25
Total	9	43	106	1931.86

On the other hand, the same survey held in Samar for the Samar Integrated Rural Development Project revealed the following:

Provinces	Towns Covered	Endemic Barrios	No. of Snail Colonies	Estimated area of Snail Colonies (Has.)
Samar North	5	60	164	3,086.21
Samar West	8	96	220	1,945.55
Samar East	5	14	20	378.90
Total	18	170	404	5,410.66

In line with the promotion of research, the council through its member-agencies completed seven research proposals which were given priority during the meeting in Manila this year of the international working group on schistosoma japonicum. Five of these proposals were submitted by the SCRS, two by the Bureau of Animal Industry of the Department of Agriculture, and the Institute of Public Health of the University of the Philippines Systems.

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Control of Sexually Transmitted Diseases



With help of WHO consultants, DOH prepared a national program for the prevention and control of sexually transmitted diseases after a seminar-workshop held June 6-12. The program's two major objectives: to control and reduce sexually transmitted diseases through the screening of probable contacts (e.g., hospitality girls, masseuse, students and employees), health education, treatment, tracing of contacts and subsequent follow-up; and expansion of the Sexually Transmitted Diseases Control Service (hitherto known Division of Social Hygiene) in areas where V.D. are especially rampant (near the American military bases, for example).

At present, only 10 regions out of the country's 13 have STD clinics. These clinics are found in the cities of Angeles, Olongapo, Cavite, Baguio, Dagupan, Legazpi, Naga, Bacolod, Iloilo, San Pablo, Caloocan, Pasay, Manila, Quezon, Cebu, Zamboanga, Iligan, Davao and Cotabato. They are also found in Bocaue, San Antonio, Subic, Parañaque, Sta. Cruz, Bataan, Puerto Princesa and Tarlac. During the year, these STD clinics reported:

Total patients attended	442,712
Total patients examined	371,875
Total patients treated	62,391
Total laboratory tests	
a. Smear	120,998
b. VDRL	17,792

Total no. of positive cases	
a. Gonorrhea	13,436
b. Syphilis	368
c. Non-specific urethritis	11,285
Total no. of blood extractions	37,792
Total no. of pre-natal cases	2,129
Total no. of contact reports	
received	
a. Found	10,785
b. Not found	5,028

In 1976, patients reached a total of 470,928 but it does not mean we now have less V.D. problems. It was merely a case of lack of field personnel (backbone of the control program) and medical supplies which slackened performance. During the same period, confirmed gonorrhea cases totaled 8,822, 4,614 cases more than this year's. It was proved that culture media is more effective than the gram staining method in determining positive cases.

Despite these figures, STDs do not yet constitute a major public health problem in the country as other diseases. And the government will continue to see to it that this will be always so in the coming years, containing it to the barest minimum possible. The national program for the prevention and control of the sexually transmitted diseases is one step to that.

Vector-Borne Disease Control

Recent epidemiological studies showed a number of tropical diseases other than malaria and schistosomiasis, those transmitted especially by mosquitoes, to be already endemic in many parts of the country. They include viral and helminthic diseases. Among them: filariasis, dengue hemorrhagic fever (Philippine type), Jap B-encephalitis, and paragonimiasis.

The alarming rate these diseases have caused many of our countrymen ill spurred the DOH to create the Vector-Borne Disease Control Services, an office that spinned off from the Division of Filariasis, now defunct but subsumed under the VBDCS.

Filariasis, for example, is endemic in 42 provinces with more than 20 million people at risk. Its national prevalence rate is 4.6 percent, highest among other tropical diseases found in the country.

Dengue hemorrhagic fever, on the other hand, had an incidence rate of about 25 per 100,000 population based on all cases reported from 1958 to 1975. Fatality rate was 7.82 percent, claiming 2,019 lives out of 25,684 cases reported during that period. Dengue hemorrhagic fever is transmitted by a common household mosquito called *Aedes aegypti*.

Another mosquito-borne disease, the Japanese B-encephalitis, registered a fatality rate of 11.95 percent. Its vector, the Culex tritaeniorrhynchus or Culex summorosus, thrives in the rural areas. Seldom is this specie found in the city.

The division has three programs: filariasis control, vector control, and integrated family planning, nutrition and parasite control. In 1977 the three field units on filariasis control in Sorsogon, Tacloban City and Tagum surveyed 229 communities with a combined population of 71,388. Out of the 58,650 given blood tests, 767 had filariasis. Of these, only 111 were treated.

These units also collected and identified 20,671 mosquitoes. And out of the 6,413 dissected, 47 played host to filaria larvae.

To spread knowledge on the disease, the office published an article on the immunological aspects of filariasis in the American Journal of Tropical Medicine and Hygiene in March.

In vector control, VBDCS conducted ovitrap surveys at the Bonifacio Elementary School and the San Lazaro Hospital. Began in July, this project consisted of setting up mosquito traps in these places and collecting them weekly. Initial results showed these places were very vulnerable to virus infection and that the DHF vector multiplied with the onset of the rains.

The integrated family planning, nutrition and parasite control program found initial implementation at the San Pedro resettlement area (pop. 10,000) in San Pedro, Laguna. Considered innovative, the program relies on the successful interplay of each component to promote the people's health. So far, almost every settler had already been dewormed. Monthly tubal ligations and vasectomy operations averaged five and two, respectively. In addition, some 30 percent of the couples there were practising family planning.



Secretary Gatmaitan speaks during the 1st International Workshop on Chaemotherapy of Leprosy in Asia.

Still a major health problem in the country, leprosy affected some 32,525 persons in 1977 in the endemic areas of Ilocos Norte, Ilocos Sur, Batanes, Sulu, La Union, Abra, Pangasinan, Cebu, Leyte, Antique, Tarlac, Nueva Ecija, and Manila. Out of this total receiving treatment from the Leprosy Control Service through the rural health units, 975 were cured. Meanwhile, 2,637 new cases were discovered even as old patients just disappeared and stricken off from the rolls. Last year, registered leprosy patients totaled 34,721.

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Since leprosy has a social stigma attached to it, which has posed problems to the government's leprosy control program, it could be presumed that many more did not submit themselves to examination out of shame, or maybe they simply they did not know they were already afflicted with the disease. Thus increasing chances for the disease to spread. There are four ways of identifying leprosy cases:

- 1. Examination of school children. This is done every year especially in endemic areas. In 1977, there were 10,437 children examined.
- 2. Skin clinic consultation. Cases usually first mistaken as ordinary skin diseases but are, in fact, leprous are determined through this method. In 1977, patients reached 87,391.
- 3. Examination of household contacts. Total under this method during the year was 28,878.
- 4. Referrals by other health units, private physicians as well as private citizens of suspected leprosy cases: 598.

Because of the discovery of sulfone drugs as well as other recent favorable developments toward leprosy control, many patients need no longer be confined in leprosaria but are given treatment right in their own homes.

For example, out of the total new patients, 2,196 were placed under domicillary care and only 441 confined in leprosaria.

The year saw the holding of the First International Workshop on Chemotherapy of Leprosy in Asia at the Philippine Village Hotel January 26-28. It was attended by 36 delegates from nine Asian countries.

Meanwhile, the Dermatology Research and Training reported a total of 96,805 new cases over the previous year's 41,337. These included infectious dermatoses, diseases of the hair, pigmentary disorders, and deficiency diseases. During the year, it distributed 216,182 medicines for free; conducted inservice trainings in dermatology and mycology as well as 427 seminars in mycology. It also sponsored 510 clinical conferences in cooperation with the Philippine College of Tropical Dermatology.

Research activities were: (a) statistical survey of registered skin diseases including their scientific nomenclature; (b) mycological diagnosis of fungus infections; (c) screening of skin tumors with histopathological examinations; and (d) comparative therapeutic trials on psoriasis cases during the year.



Occupational Health

If industrialization has resulted into economic development and improved living standards among the people, so has it caused accidents and occupational diseases that sometimes end up in deaths. In certain industries, workers are exposed to hazards that in the long run impair health. In others, many have lost their limbs and worse, their lives in the course of factory operations.

A study made in recent years pinpointed sulfur dioxide as the culprit in steel and chemical plants. Constant inhalation of this noxious substance by workers in these plants made them vulnerable to respiratory diseases, chronic bronchitis among them.

Some workers succumb to lead poisoning, particularly those in factories that manufacture storage batteries, washers, and lead bars. In working areas where constant noise batters the workingman's ears in more than tolerable levels, hearing impairment usually occurs, later aggravated by old age.

The government, concerned as it is with boosting industrial production, has at the same time given these ill effects of industrialization more attention. Through the Division of Occupational Health, it has provided consultative and advisory services on the sanitation of factories, workers' health, and prevention and control of occupational diseases.

In 1977 health teams visited a number of plants to look into reported occupational hazards as well as environmental threats posed by the presence of these factories in certain sites. In one factory (the Columbia Paint Corporation in Valenzuela, Bulacan), for instance, some 61 workers were found positive of coproporphyrin in the urine. (The plant management was later advised that they let the workers periodically undergo such tests to minimize the ill effects resulting from their work.) Entrusted with developing guidelines to prevent and control occupational diseases, the DOH continued its research on occupational cancers, using as material five confirmed cases of cancer in leading hospitals in Metro Manila. (In other countries, it has been established that industrialization has directly caused cancer among the working population.)

In seminars and conferences on occupational health held this year, DOH officials spoke on control measures to minimize lead absorption and poisoning among workers, good housekeeping and sanitation, and health hazards and diseases in industry.

But of trained health personnel, the necessary instruments to survey air contaminants and noise pollution, and even an up-to-date library on occupational health have all constrained DOH efforts. Until now, DOH does not even have its own laboratory and thus had to coordinate with the Bureau of Research and Laboratories in some of its projects. Hopefully though, a central DOH laboratory will soon rise to make it cope better with increasingly growing responsibilities in an increasingly industrializing society.



Factory workers have to be protected from certain occupational hazards.

Mental Health

Health planners project that the present prevalence of communicable diseases would eventually shift to non-communicable ones including mental disorder. Although no accurate figures are available to show the nature and extent of mental disorders, it has been estimated that three percent of the population are likely to develop mental disease in one form or another, an average of 36 per 1,000 population.

In 1977, 2,126 new cases were reported by eight mental health clinics under the DOH, most of them in Metro Manila, as follows:

Mental Health Service	602
Manila Hygiene Clinic	47
Quezon City Mental Hygiene	
Clinic	326
Rizal Provincial Hospital	211
Psychiatric Service, JRRMH	338
Pasay City Mental Hygiene Clinic	89
Southern Islands Hospital	179
Western Visayas Regional	
Hospital	334

The Mental Health Service developed a manual of operation on the control of mental disorders. Copies of the manual were then distributed to health workers all over the country to guide them in promoting mental health, side by side with preventing mental disorders.

Mental health education was also carried out through lectures and discussions involving students, health workers, media men and other sectors of society.

Case finding has been intensified through so-called Crisis Intervention Clinics, Mobile Clinics, and even through reports of barangay officials and private citizens.

Treatment includes rehabilitation. A patient is examined by a team of psychiatrist, psychologist, social worker, occupational therapist and others for a thorough evaluation of his physical, mental, occupational and familial conditions. The resulting multidisciplinary report will then serve as basis for his treatment.

In 1977 the MHS prepared a five-year plan on mental health which hopefully would draw WHO technical assistance like in October and November this year when it helped evaluate the present state of mental health services in the country, including psychiatric staffing pattern and training facilities.



Secretary Gatmaitan underscores the need to promote mental health.

Cancer Control



With the upsurge of cancer in the Philippines and its direct and indirect effects on the people and the community, the government has exerted more effort in controlling this major disease. Through the National Cancer Control Center, it has embarked on a nationwide cancer control program to effectively reduce the incidence, morbidity and mortality from cancer in the Philippines by cancer prevention, detection, diagnosis, pre-treatment evaluation, treatment, rehabilitation and continuing care as well as research and education of both the professional and the public.

Realizing that the best chances for cancer cure can be had through early detection, an intensive cancer education campaign has been launched throughout the country with the cooperation of the mass media and other government as well as private agencies to make the people better aware of the disease.

In 1977, the NCCC served 10,565 patients within the San Lazaro compound alone. The Tulungan Cancer Mobile Clinic, serving Metro Manila and nearby provinces, gave cancer lectures, free consultation service, wet clinics, and laboratory examinations like taking pap smear among women to detect cervical cancer. Although the Tulungan Cancer Mobile Clinic began only during the last quarter of the year and operates only on Saturdays, more than 1,500 patients benefited from its services during the year under review.

The serious concern of the government in cancer control is perhaps best reflected in current efforts to put up satellite cancer units in the country's 12 regions, thus eliminating the need for rural patients to travel all the way to Manila just to have treatment.





For those in the north, cancer treatment was boosted with the recent completion and operation of a cobalt therapy unit in the cancer satellite of the Baguio General Hospital. The cobalt therapy machine in Davao is now being installed and will be inaugurated before the end of April 1978.

Cancer units and tumor boards were also started in Ilocos Norte, Cebu City, Cagayan de Oro City, Nueva Vizcaya, Zamboanga City, and Metro Manila.

As part of its services, the National Cancer Control Center also distributed free anticancer medicines to indigent patients. It has been implementing an effective rehabilitation program to improve the quality of survival of cancer patients. Aside from teaching women the art of self-examination of the breast for early detection of breast cancer, an out-patient post-mastectomy rehabilitation program has helped many women who have had surgery and radiation therapy for breast cancer. A tie-up between the National Cancer Control Center and the National Family Planning Office has resulted in more women submitting themselves, after their family planning consultations, to pap smear tests for early detection of cervical cancer.

The Committee on the III Effects of Smoking created by the Secretary of Health during the year, is now a joint project with the National Cancer Institute of the U.S. Department of Health, Education and Welfare to analyze local cigarettes for their tar and nicotine contents. The results of the tests were announced to the public this year for their information and protection against lung cancer and other related diseases of the respiratory and cardiovascular systems.

The year also saw the approval of an initial P15 million outlay to start the construction of a new National Cancer Control Center building where its central activities, most modern equipment for clinical service, cancer training, epidemiology and research would all be accommodated.

Radiation Health

Working closely with the National Cancer Control Center is the Radiation Health Office of the Department of Health. It was created by Presidential Decree No. 480 issued June 6, 1974, to control and regulate the use of radiation, particularly in medicine. Its main objective is to ensure the safety of radiation workers, users, and the general public from the hazards caused by ionizing and nonionizing radiation.

The RHO-sponsored First Philippine Congress of Radiation Workers was held November 7-13. Earlier in the year, on February 17, the Philippine Secondary Standard Dosimetry Laboratory (SSDL) of the RHO became a member of the International Atomic Energy Agency/World Health Organization network of SSDL's. In September, after completion of the PSSDL facilities, the RHO successfully participated in the International Atomic Energy Agency's inter-comparison of standards

During the year, some 350 radiation workers were given further training thru seminars, tutorials, and technical assistance. Lectures on radiation protection and early cancer detection were likewise held in the barangays in line with the program of bringing the government closer to the people.

Disease Intelligence

The Disease Intelligence Center has always collaborated with the National Census and Statistics Office in collecting data on births, deaths, and illnesses. After being edited, classified, tabulated, analyzed and interpreted, these data are published and disseminated for use by the different sectors of society, especially health planners and researchers.

Not only does the DIC collect such data. It also conducts epidemiological investigations of disease outbreaks, research studies such as its present project with the San Lazaro Hospital on tetanus neonatorum and other tetanus cases admitted at the SLH in 1977, training of health personnel on epidemiology and health statistics with OHEPT's assistance, and disease surveillance.

The year witnessed eight minor disease outbreaks in various regions of the country. These the DIC investigated: three poliomyelitis outbreaks in Cebu, Davao and Ormoc; three cholera el tor outbreaks in Cebu, Bohol and Tagum; typhoid fever in Marikina; and gastroenteritis in Misamis Oriental.

In the current national health survey sponsored by NEDA, DIC prepared draft questionnaires on morbidity which were pre-tested in Cavite. It also participated, in coordination with the NEDA inter-agency committee on health and social service statistics, in preparing glossaries on disease statistics, nutrition, population, housing and other vital statistics.

From various morbidity reporting mechanisms as well as actual surveys, the DIC observed trends in the weekly incidence of diseases throughout the country. In Metro Manila, weekly admission reports by the SLH served to indicate any unusual increase in the incidence of communicable diseases of national importance including cholera, typhoid fever, gastro-enteritis, poliomyelitis, diptheria, and H-fever.

In the course of the year, the DIC issued warnings to the public through the mass media on prevention and control of certain diseases that had assumed almost epidemic proportions such as cold and flu which registered 645 and 835 admitted cases respectively, according to the Physical Examination Section.

Private researchers, health and medical agencies, and government offices received DIC assistance in the form of advisory services in disease intelligence, health statistics and epidemiology, and pertinent statistical materials.



Environmental Sanitation

Over the years government concern on environmental problems has grown in its desire to protect the people from the hazards of pollution.

In the Four-Year Development Plan which ended in 1977, this concern was expressed thus: "Environmental sanitation will be enforced through an intense campaign for better sanitary facilities and through active participation by the government in the dissemination of food hygiene regulations.

"Proper waste disposal shall also receive the necessary attention especially in crowded areas. This could be done through the putting up of more waste drums and cans along the streets and the creation of more inviolable laws and ordinances against reckless disposal of wastes."

Because of the high contributory factor of poor environmental sanitation to the high incidence of communicable diseases in the country, the development of adequate and safe potable water supply, among others, is important. In this, the Environmental Sanitation Service of the DOH—in cooperation with the Local Water Utilities Administration and the Bureau of Public Works — vigorously implemented its water quality control program, assuring in 1977 50 percent of total Philippine households of potable water supply, most of them in Metro Manila.

The ESS undertook a UNICEF-assisted Philippine sanitation project on water supply chlorination, disinfection and quality control in the provinces of Pangasinan, Iloilo, and Misamis Oriental. In Olongapo City, it coordinated with the Bureau of Dental Services the preparation of a project feasibility study on the fluoridation of the water supply there.



Also during the year, the ESS coordinated with the Department of Local Government and Community Development and the United States Agency for International Development in the implementation of a barangay water program.

Another notable accomplishment of the ESS during the year was the improvement of slaughtering services throughout the country. This was done in coordination with the National Meat Inspection Commission.

Today, some 45 percent of Philippine households are already provided with sanitary toilets. But still, the prevailing method of solid waste disposal in the country is open dumping, a highly contaminable method that exposes the population to health risks. With the continuing ESS efforts along with those of other agencies, this is hoped to be minimized in the coming years, especially now that the Code on Sanitation of the Philippines is out.
Health Education and Personnel Training

"Informed opinion and active cooperation on the part of the public are of utmost importance in the improvement of the health of the people."

This, from the preamble of the WHO constitution, has inspired local health educators in their efforts to foster health consciousness among Filipinos and in drawing their cooperation in such nationwide programs as family planning and nutrition. The stress has always been on the preventive side, making the public realize the importance of their health of personal hygiene and also of environmental cleanliness. A number of diseases result from simple neglect of these basics.

Community involvement is essential to the success of barangay-based health programs. Self-help and self-reliance, when developed among barrio residents, will come in handy in such areas as "first-aid" clinical care, monitoring the nutritional status of growing children in the community, promotion of food production and food preparation for improved nutritional practices, promotion of family planning practices and other maternal and child health practices.

During the year in review, a total of 35,844 healt^h education materials found their way into the barangays with the end in view of stimulating the people to participate in solving their own as well as their communities' health problems by making them aware of what these problems were and how best they could be met within the available resources. To strengthen field health education, the DOH trained 19,206 barangay leaders. Neighborhood councils (3,962) were also organized as well as study groups for 19,565 persons, thus promoting a continuing dialogue among health workers and the communities they serve.

Health education components of such programs as schistosomiasis and leprosy controls, immunization and anti-dangerous drugs were also developed.

In addition, the DOH strengthened educational media support with the signing this year of a memorandum agreement with the National Media Production Center on the production of health materials. These include a barrio health manual on communicable diseases and other primary health problems, and flip charts for the schistosomiasis control program.

Along with health education, the training program was reoriented to the Department's rural health care delivery system. To develop managerial and supervisory skills, a number of top-level DOH personnel underwent training. Some of the programs they participated in included: practical rural hospital administration (for chief nurses and administrative officers of rural hospitals), basic training officers' course, medical records management course, junior executive training (for division chiefs and those of equivalent rank), and supervisory training for effective administration and management (for division and section chiefs).

There were also training programs for clerical development to make office operations more efficient. Overall, a total of 33,541 joined the trained health manpower pool during the year.

Dental Health

Putting more teeth into the government's national dental health plan firmed up this year: rural dental services, worked this year for the full implementation of the first integrated national dental health plan. Although prepared as early as two years ago, it first saw implementation in mid-1976 but really got in full gear by the following year. Among its features:

1. Preventive program which includes oral hygiene, use of fluorides, dietary control of caries among school children, prevention and control of dental or oral diseases arising from occupational hazards among workers.

- 2. Curative program which includes prompt treatment and filling of decayed but restorable teeth, extraction, and scaling of gingivitis.
- 3. Rehabilitation program which includes prosthesis for missing teeth, in part or in full.
- 4. Dental health education and information program.
- 5. Research.



Dental problem is most felt by children.

The most significant research program in 1977 was a national dental epidemiological survey conducted in selected areas in the country's 13 health regions. It was still way back in 1967 when a survey of such scope was last held. The 1977 survey, its sequel, covered 66 barrios selected at random out of some 68 municipalities all over the Philippines, with persons aged 2-65 as subjects. Its principal objective: to determine the type, extent and severity of dental disease prevalent in the country which shall become the basis of future dental health programs.

Results of this survey will be shared with other countries in the SEA-Western Pacific region with the end in view of drawing up a regional profile of dental diseases and conditions.

Also in research, the year saw the implementation of a joint DOH-NSDB project on fluoridation.

Initial statistics show that 95 out of 100 children in urban areas have decayed, missing and filled teeth. In the rural areas, it is only 87 percent but when the fact that 70 percent of our population live there, the problem is magnified. Compounding it is the lack of enough dental practitioners in the provinces. Whereas the ideal ratio is one dentist for every 1,000 population, the situation obtaining now leaves much to be desired. In 1969 the ratio was 1:7,800. By 1979 this is expected to become 1:9,300 with the high rate of population growth and the disproportionate output of less than 200 new dentists every year. Worse, most of them practice their profession in the city.

The Bureau of Dental Health Services batted for a dental training officer for every regional health office in order to systematize dental training needs in the country. Today there is wider participation in drawing up future plans in training as a result of this program. In 1977 training seminars on preventive dentistry were held in eight of the country's regions.

As part of its information drive which aims to motivate the people to help themselves keep dentally fit, the BDHS distributed educational materials in the provinces. Among the titles: dental caries, nourishing foods for oral health, modifying the diet for better dental health, fluoride therapy by mouth-rinsing, and what we should know about our oral health.

The 27th national dental health week, an annual affair (February 3-9) designed to foster dental health consciousness, carried the theme: "Know Your Teeth, They Scrve You Well."

Other BDHS accomplishments aside from its continuing dental services in schools and industrial establishments:

- 1. Completed a manual on revised standards of dental services and updated policies, including a glossary of dental terminologies.
- 2. Finalized a memorandum-agreement between the DOH and the AFP Medical Center to train hospital dentists in oral surgery at the AFP Medical Center.

Food and Drug Administration

It is the policy of the State "to insure safe and good quality supply of food, drug and cosmetic, and to regulate the production, sale, and traffic of the same to protect the health of the people." Embodied in RA No. 3720 which created the Food and Drug Administration way back in 1963, this policy has since become the very *raison d' etre* of the FDA and the cornerstone of its activities.

In 1977 after the government recognized that "there are substances other than food, drugs and cosmetics that are hazardous to the health and safety of the public," the FDA started implementing the provisions of Presidential Decree No. 881 issued in 1976 which empowered the Secretary of Health "to regulate the labelling, sale and distribution of hazardous substances." Among FDA activities in this regard were the evaluation of these hazardous substances and their registration.

Operating on a budget of P2,766,000 which was P410,656 more than last year's, FDA:

- 1. Intensified the inspection of food, drug and cosmetic establishments.
- 2. Continued its efforts in collecting samples of food and drugs for chemical analysis and bacteriological examinations.
- 3. Tested foods for possible presence of environmental contaminants like mercury, pesticides and natural toxins.



- 4. Tested drugs for safety and efficacy.
- 5. Evaluated the usefulness of water filters and purifiers in removing water pollutants to assure high quality of domestic water supply.
- 6. Evaluated the iodide content of iodized salt which, in specific quantities mixed with salt, protects people from goiter.
- 7. Promoted quality control in firms under its jurisdiction through new and better techniques of inspection, sampling and analysis. Explanatory regulations and guidelines were also developed.
- 8. Determined the suitability of plastic containers.
- 9. Completed research on methods in detecting adulterated honey and in differentiating natural from synthetic honey.

The FDA came out with the first issue of the Philippine FDA Bulletin in 1977. It will henceforth provide the public basic information on the safety and effectiveness of drugs, their adverse reactions among individuals, and new developments in therapy.

The WHO received during the year a program profile on monitoring adverse drug reactions prepared by FDA.

Thirty-eight

Hospital Standards



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"The government shall continue to meet the need for more hospitals in regions where they are not to be found. It shall also continue to prevent the deterioration of hospitals by constant renovation."

This statement in the Four-Year Plan (1974-77) underscores the need for infrastructure in a health program.

This statement in the Four-Year Plan (1974-77) underscores the need for infrastructure in a health program. The plan however, also recognizes that current shortage in health infrastructure, especially hospitals, is mainly because of the high costs in constructing them and in equipping them with modern facilities.

Despite budget constraints though, hospital beds totaled 75,530 in 1977, a large improvement over the 1974 record of about 40,651 beds. In 1975 alone as the plan completed its second year, the government put up four national hospitals, 11 provincial and general hospitals, and 10 emergency hospitals, posting an increase of 7,491 in government hospital beds from 1973 to 1975. The Division of Hospital Standards and Administration reports:

I.	Hospitals in operation a. DOH-operated including	- 1,027				
	leprosaria	_	326			
	b. Under other government					
	agencies	_	30			
	c. Private	_	671			
II.	Classification of hospitals					
	a. Under the DOH					
	1. according to service –					
	– general hospitals – 313					
	- special hospitals - 5					
	– leprosaria – 8					
	2. according to training faciliti	ies				
	- designated TT hospitals	_	38			
	– medical centers	_	4			
	– regional hospitals	_	12			
	 special hospitals 	_	6			
	– provincial hospitals	_	16			
	- emergency hospitals	_	2			
	non-TT hospitals	_	280			
3. according to bed capacity						
	– 25 beds	-	156			
	— 50 beds	_	53			
	– 75 beds	_	24			
	– 100 beds	_	46			
	- over 100 beds	_	39			

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Secretary Gaitmaitan inspects hospital facilities.

b. Private hospitals

	6-24 beds	_	350
_	25-49 beds	_	116
	50-74 beds	_	83
_	75-99 beds	-	20
1	100 and over	-	102

III. Total hospital beds

a.	Under the DOH including		
	leprosaria		30,500
b .	Under other government		
	agencies	-	6,707
c.	Private hospitals	-	31,053

National hospitals and medical centers were upgraded, new facilities installed, hospital and professional fees standardized, and hospital services further improved through a number of measures: revision of medical records forms and the hospital nursing service administrative manual, completion of manuals on hospital pharmacy and medical records. In 1976 manuals revised were those on nursing service, medical social service, general formulary for hospitals and another on information. Hospitals inspected by the DHSA in 1977 for adequacy in teaching and training facilities for medical and nursing students were:

- 1. Corazon Locsin Memorial Hospital
- 2. Western Visayas Regional Hospital
- 3. Mariano Marcos Memorial Hospital
- 4. Zambales Provincial Hospital
- 5. Sorsogon Provincial Hospital
- 6. Silay General Hospital
- 7. Our Lady of Lourdes Hospital
- 8. Perpetual Help Hospital

New hospitals seeking license and those applying for license renewal were also inspected. These totaled 70 and 316 respectively for private hospitals in 1977.

The goal now is to increase hospital beds to a ratio of one for every 500 people. But the ever increasing population demands at least 3,000 new beds yearly to meet this goal. If roads, bridges and other infrastructures have been built, the government will not shrink from its task of providing improved health services to the people which means for example, the construction of more hospitals in the coming years.

Research and Laboratories

DOH's national immunization program would be unthinkable without the support of the Bureau of Research and Laboratories. Through its biological and blood plasma production, more and more people have been rendered less vulnerable to some diseases. In 1977 it produced 19,905,890 doses of vaccines and sera, improving the previous year's production of 10,527,154. Among them were typhoid, El Tor, DPT, rabies, and BCG vaccines. Production of antigens and antisera totaled 426,150 doses which surpassed the target by 151 percent. In blood plasma production, the record was even more impressive, posting a 197 percent accomplishment over the year's target of only 1,000 doses.

Research also gained headways in 1977. By the year's end, its survey on infectious diseases in selected areas in the Philippines was already 36 percent through.

Other significant research activities and their respective accomplishments included: bacterial and viral agents associated with diarrheal diseases in Metro Manila, 24 percent; prevalence of penicillinase producing N. gonorrhea in different areas of the Philippines, 20 percent; simplification of the bacterial potability testing of water for use in peripheral areas, 20 percent; phase II of the oral rehydration therapy in Negros Occidental, 100 percent.

Overall, the laboratory research and examination project conducted 10 research studies on basic health problems and 148,594 laboratory examinations including serological, clinical pathology, bacteriological, environmental health, parasitological and virological examinations. In 1976, the record was only 85,414 laboratory examinations.

The rules and regulations on the operation of clinical laboratories and blood banks were



vigorously carried out, resulting in the standardization of 497 clinical laboratories, 197 blood banks and 28 blood bank outlets during the year. Its quality control program, a continuing activity for all licensed laboratories, maintained the reliability of results from tests done in these laboratories.

In terms of physical plants, renovation of the bacterial vaccine laboratory building and the construction of a new tetanus laboratory building began this year with the former already 65 percent complete at the close of 1977. On the other hand, construction of the TLB began only on December 27, 1977.

Its special project on cholera research and eradication, assisted by WHO and JICA, was able to establish one pilot demonstration community for the eradication of the disease, 10 pilot implementation communities in the country's different regions, one public health laboratory, and the production of 132,100 packets of ORESOL (oral rehydration powder). During the year, it also continued the 1st and 2nd phase of the study on oral rehydration therapy in two communities in Bacolod City and seven towns in Negros Occidental.

More pilot communities will be established soon as initial difficulties on implementation are overcome.

Quarantine Services

Enrolment of more foreign students in Philippine colleges and universities and employment of more Filipino workers abroad, among other developments, kept the Bureau of Quarantine busy during the year. As a result, immigrants given medical examination totaled 4,659 as compared to last year's 4,152. With overseas employment enjoying an unprecedented boom and the lifting of the travel ban to boot, the number of Filipinos immunized against cholera, smallpox, typhoid, and yellow fever increased considerably from last year's 206,100 to 260,443 in 1977. Its responsibility of supervising the sanitation of inter-island vessels and aircrafts also increased, with the total reaching 11,935 as against the 1976 record of 9,807 aircrafts and vessels. Total cargo inspected, disinfecting them with fumigants and insecticides when necessary, reached 26,655,778 tons. On the other hand, crew and passengers examined for possible diseases totaled 1,697,080, an increase of 937,408 over the 1976 total.



Sanitary inspection was done before departure with the water supply of the vessels chlorinated had it been found unsafe for human consumption.

In addition, health educators taught both crew and passengers sanitation rules that had to be observed to maintain cleanliness. In 1977, health educators were active, boarding a total of 47 vessels with 36,177 passengers and 200 crew members.

Quarantine officials saw to it that ports and airports were clean and safe for transients, with food and water served in their premises bacteriologically examined weekly at the BQ laboratories in Manila and Cebu. These laboratories also performed routinary examinations of urine, stools, and blood among passengers and stewards.

In vermin control, some 66,150 rats, fleas, and mosquitoes (57,608 of them rats) were destroyed through spring and cage traps, poison baits and DDT application.

A new quarantine launch was dispatched to the Iloilo Quarantine Station with the latter's old launch repared and given to the Zamboanga Quarantine Station.

As in years past, the Bureau of Quarantine in 1977 assisted the Immigration and Deportation Commission in determining the physical and mental fitness of immigrants. Largely because of this as well as other sognificant measures, entry of quarantinable diseases into the country which would endanger local health, was checked.

During the year, the bureau also:

- summarized reports on quarantinable diseases, culled from the WHO publication "Weekly Epidemiological Record," and sent them to all quarantine stations all over the country.
- 2. Performed a total of 96 chest X-ray examinations with the operationalization of its X-ray machine in June 1977.



- 3. Rendered medical assistance to sick crew members and passengers at high seas through wireless communications. In cases of emergency requiring hospitalization, patients were airlifted in cooperation with the Rescue Coordinating Center.
- Conducted seminars, workshops and lectures on sanitation and related areas. In particular, it held December 1977 a four-day national seminar/workshop for quarantine medical officers, inspectors and nurses in Manila.

In the years ahead, the bureau will chart along new directions and assume bigger roles. The well-nigh conquest of smallpox, the containment of other quarantinable diseases such as yellow fever and cholera, and the development of new and dangerous communicable diseases that are quarantinable compel a reassessment of its traditional role in safeguarding the nation's health. It thus sees itself as responsible for the following: (1) surveillance on quarantinable diseases; (2) control of environmental sanitation; and (3) vector control in ports and airports.

The Plan

On the fifth anniversary of the New Society on September 21 this year, President Marcos signed PD No. 1200 "approving and adopting the five-year Philippine development plan from 1978 to 1982 and promulgating a tenyear development plan for 1978-1987 and a long-term development plan up to the year 2000."

Chapter 9 of this document which takes effect

January 1978, deals with health, nutrition and family planning. Among the sector's major medium-term (1978-87) objectives:

- 1. To increase the average life expectancy of Filipinos.
- 2. To reduce the annual rate of population growth.
- 3. To reduce the rates of mortality (infant and preschool) and morbidity.



More RHU's will be operationalized in the coming years.

- 4. To reduce the prevalence of third-degree and second-degree malnutrition among preschool (0-6 years old) and school children (7-14 years old).
- 5. To increase energy and protein intake among households with existing deficiencies.
- 6. To reduce the prevalence of anemia among pregnant women, nursing mothers, and children; also of goiter in endemic areas as well as vitamin A deficiencies.
- 7. To improve environmental sanitation.
- 8. To increase coverage of health insurance by absorbing more and more people under the Medicare plan.
- 9. To reduce health disabilities.

The present high population growth rate, common among developing countries, will hopefully be reduced to only 2.1 percent by 1987 from the 2.8 percent registered during the period 1970-75. The projected population of 56 million Filipinos by that time will relatively have longer lifespan of 64 years, only eight years short of the average life expectancy in developed countries.

If current programs on maternal and child health, environmental sanitation, nutrition, and immunization prove effective over the years, the country's infant mortality rate will experience a decline from the 1976 level of 74 to only 56 death deaths per 1000 live births by the end of the medium-term plan; also with crude death rate, from 10.6/1000 to 8.8/1000 in 1987.

The Plan period will also witness an increasing incidence of degenerative diseases while the reverse trend will be true for communicable diseases.

In terms of potable water supply which now benefits only 42 percent of the population, this is estimated to serve 40 percent more by 1987. In the same year, 57 percent of the population should have already been provided with sanitary toilets as against the prevailing 32 percent.

Malnutrition will also be alleviated among those between 0-6 and 7-14 years old through existing intervention programs. The Plan recognizes the interrelationship of health, nutrition and family planning in maintaining desirable health, nutritional and population levels. A smaller family size leads to greater shares for mother and infants in the family's daily food basket and to greater health/medical allocations for all members. On the other hand, there is direct mutual interaction between health and nutrition and improvement in these areas apparently promotes the practice of family planning in the long run."

From 1978-87, these policies shall guide the implementation of the sectoral plan:

- 1. Expansion of population coverage of health, nutrition and family planning services.
- 2. Encouragement of the effective utilization of these services.
- 3. Cultivation of community participation and reliance on local resources.
- 4. Involvement of the private sector.
- 5. Optimization of the use of foreign assistance.
- 6. Emphasis in the rural areas where these services are most needed.
- 7. Professionalization of manpower.
- 8. Implementation of the Integrated Reorganization Plan.

Because of existing inadequacy in manpower and financial resources, several strategies have been adopted in order that implementation of the Plan may go full swing despite these constraints:

1. Maximum use of existing facilities and manpower. All government and private facilities will be fully used as outlets of health, nutrition and family planning services, especially in rural areas. These facilities include hospitals, rural health units, barrio health stations, public schools, army clinics, supplementary feeding centers, community hospitals and health centers, puericulture centers, family planning centers, multi-purpose centers, mobile *Tulungan* hospitals, and where these are absent, private beds will be subsidized. Logistics and technical assistance will be provided to make this possible.



- 2. Expansion of primary health services. More rural health units and barrio health stations will be established and more paramedical workers trained to deliver the most peripheral level of health services. They will only refer patients to the next higher level of health care whenever necessary.
- 3. Development of manpower. Hilots and other traditional health workers in the barrios will be trained to provide complementary health manpower in the face of professional shortage. Medical and nursing students will be given attractive incentives for them to work in depressed areas when they become professionals.
- 4. Coordination and integration of services. In areas where unnecessary and costly duplication of activities occur, coordination and integration of services will promote efficiency.
- 5. Seeking greater local support. Local governments and private organizations will play a large role in the provision of social services through greater technical, financial and material assistance to suit local needs.
- 6. Greater reliance on indigenous resources. Families will be encouraged to cultivate their own vegetable plots to meet part

of their nutritional needs. They will also be taught the proper use and preparation of foods which are inexpensive but highly nutritious.

- 7. Disseminating information/education. There will be an extensive public information campaign to draw the public's participation in solving their community's health problems, to promote preventive health care, and to ensure effective use of available health services.
- Sanitation of the environment. Improvement of environmental sanitation, especially in rural areas and the urban slums, will be undertaken. Water from deep wells will be chlorinated; inexpensive but durable sanitary toilets constructed, and sanitation code enforced.
- 9. Accelerated immunization efforts. The compulsory immunization of infants and children below eight years old will be further pursued even as vaccine production is expanded to meet the requirements of the program. The prospect of the Philippines supplying other ASEAN countries with vaccines is not far-fetched with the planned creation of a biological production unit.
- Expanded financial resources. To strengthen health services, more funds would have to pour in from various sectors, especially from the national government and its local units. It will also count support from the private sector. Implementation of Medicare II will increase resources available to the sector.

The Department of Health, the "one institution whose record of service to the nation has been enhanced through the years," as President Marcos described it, will definitely occupy pivotal position in seeing all these plans come true. If its past performance be the gauge, and with enough valuable support from other sectors, the DOH will surely not shortchange the people with their health, much too valuable as it is to national development.

Organizational Chart



DOH Officials

- J. C. AZURIN, M.D., M.P.H. Undersecretary of Health Director, Bureau of Quarantine
- 2 ANTONIO ACOSTA, M.D., M.P.H. Assistant Secretary of Health



CLEMENTE S. GATMAITAN, M.D., M.P.H. Secretary of Health





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- 3 A. G. BARCIAL Assistant Secretary for Personnel Management and Development
- 4 J.J. DIZON, M.D., M.P.H. Director, Bureau of Health and Medical Services
- 5 GUILLERMO F. JULIANO, D.D.M., M.P.H. Director, Bureau of Dental Services
- 6 VIRGINIA BASACA-SEVILLA, M.D., M.P.A. Acting Director, Bureau of Research and Laboratories
- 7 ANDRES A. GALVEZ, M.D., M.P.H. Acting Chief, Planning Service







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- 8 CELIA T. ANATALIO, M.D. Director, Radiation Health Office
- 9 FREDESWINDA L. JUGO, M.D., M.P.H. Chief, Office of Health Education and Personnel Training
- 10 TRINIDAD A. GOMEZ. M.D., M.P.H. Director, National Nutrition Service
- 11 ALFREDO T. SANTOS, M.D. Executive Director, Schistosomiasis Control and Research Service
- 12 LOURDES ROMUALDEZ, M.D., C.P.H., C.H.A. Director, Dermatology Research and Training Center
- 13 DELFIN RIVERA, M.D., M.P.H. Director, Malaria Eradication Service

- 14 JULIO P. VALERA, M.D., M.P.H. Chief, Disease Intelligence Center
- 15 ANTONINO P. SAN JUAN Chief, Administrative Service
- 16 TRANQUILINO ELICANO JR., M.D., D.M.R.T. Director, National Cancer Control Center
- 17 FLORA BAYAN, M.D., M.P.H. Director, National Family Planning Office
- 18 ARSENIO M. REGALA Administrator, Food and Drug Administration
- 19 VIRGILIO FLORES Chief, Finance and Management Service



- 20 IGNACIO DE GUZMAN, M.D., M.P.H. Director, RHO No. 1
- 21 MANUELA UNITE, M.D., C.P.H. Acting Director, RHO No. II
- 22 FLORENCIO M. GOMEZ, M.D., M.P.H. Director, RHO No. III
- 23 EDILBERTO G. FERNANDO, M.D., M.P.H. Director, RHO No. IV
- 24 FERNANDO T. AVELINO, M.D., M.P.H. Director, RHO No. V
- 25 RUFINO C. SUPLIDO, M.D., M.P.H. Director, RHO No. VI

- 26 JOSE B. YBAÑEZ, M.D. Director RHO No. VII
- 27 AMPARO BANZON, M.D., M.P.H. Director, RHO No. VIII
- 28 HILARION J. RAMIRO, M.D. Acting Director, RHO No. IX
- 29 MANUEL G. ROXAS, M.D., M.P.H. Director, RHO No. X
- 30 JOSE SALCEDO V. QUIMPO, M.D., O.D., F.P.C.S. Acting Director, RHO No. XI
- 31 NAPOLEON S. NOVENO, M.D., C.P.H. Director, RHO No. XII







- A. General Administration & Support Services P194,152,000 (19.65%)
- B. Operation of Special Hospitals 1 P93,945,000 (9.51%)
- C. Operation of Special Projects P48,752,000 (4.94%)
- D. Attached Agencies: P35,884,000 (3.63%) 1. Phil. Medicare Commission
 - 2. Dangerous Drugs Board

- 3. Tondo General Hospital
- E. Bureau of Research and Laboratories P8,691,000 (.88%)
- F. Policy Formulation, Program Planning and Standards Development for Dental Health Services, Health and Medical Services and Health Education and Training P3,971,000 (.40%)
- G. Bureau of Quarantine P4,158,000 (.42%)
- H. Food and Drug Administration P2,953,000 (.28%)
- I. Schistosomiasis Control Council P851,000 (.09%)
- J. Program Implementation for Health, Medical and Dental Health Services P594,465,000 (60.18%)
 - 5.1 Regional Health Training Centers P2,360,000 (.24%)
- 5.2 Regional Laboratories P1,778,000 (.18%)
 5.3 Field Health Services P187,489,000 (18.98%)
 5.4 Sanitaria Services P17,654,000 (1.79%)
 5.5 Hospital Services P340,984,000 (34.52%)
 5.6 Regional General Administration and Support Services P44,200,000 (4.47%)



NATIONAL MEDIA PRODUCTION CENTER

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