



The
UP PRESIDENT'S
END-OF-TERM
REPORT

1993-1999

THE CHANCELLORS' REPORTS
UP DILIMAN ◦ UP MANILA

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UNIVERSITY OF THE PHILIPPINES

2

THE CHANCELLORS'
REPORTS

DILIMAN
MANILA

The U.P. PRESIDENT'S
END-OF-TERM REPORT
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U.P. Manila

EXECUTIVE SUMMARY

■ THE PAST SIX YEARS have been both productive and challenging for the University of the Philippines Manila. In spite of the economic crisis and dwindling resources, UP Manila succeeded in developing and implementing new programs and projects that enhanced its position as the country's premier learning and training institution in the health sciences.

ACADEMIC PROGRAMS

UP Manila was able to develop and institute new courses at the undergraduate, graduate, and postgraduate levels that respond to current health needs and developments in the nation and the region. Current program offerings now total 70. The newest additions to the undergraduate programs are BS Computer Science and BS Biochemistry.

In 1995, UP Manila established the Graduate School which was transformed to the National Graduate School for the Health Sciences (NGSHS) in April 1999. The NGSHS is tasked with coordinating the development of benchmark programs consistent with the current thrust of the University to lead in graduate education and research. Under the NGSHS, 27 graduate programs and nine post-graduate degree programs are now being offered.

The newest graduate programs include the Master of Rehabilitation Science (Generic track or Speech Pathology track), Master of Arts in Health Policy Studies (with tracks in Health Social Science and in Health Science), Master in Basic Medical Sciences, Master of Clinical Audiology, MD-PhD program which is a two-track residency program, Doctor of Public Health program (Nutrition track), Master of Management with tracks in Public Management, Business Management and Educational Management, and MS Clinical Medicine (with tracks in Obstetrics and Gynecology, Child Health, Family and Community Medicine).

In 1993, the Committee on Community Health and Development was constituted to review existing community-oriented programs and activities and to identify ways to coordinate these programs with other UP Manila programs and activities for maximal impact on the communities being

served. The committee produced the "Generic Core Module for Community Field Practice" that now serves as a guide for an interdisciplinary approach to community health programs.

Guided by the principles of excellence and relevance, UP Manila continued to revise existing curricular programs. Reviewed were the BS Nursing, Master of Nursing, BS Speech Pathology, BA Political Science, Certificate in Community Health Nursing of the School of Health Sciences in Leyte, and Doctor of Public Health programs, and General Education courses.

The Commission on Higher Education (CHED) designated the College of Nursing and the College of Medicine as Centers of Excellence for Nursing Education and Medical Education, respectively. The College of Arts and Sciences was also designated by CHED as a Center of Development for Biology.

STUDENT WELFARE

UP Manila implemented Systemwide policies and programs for student welfare like the Affirmative Action Program of the Ugnayan ng Pahinungód and the Summer Bridge Program of the Learning Resource Center (LRC). It also devised learning assistance programs for students through the LRC. It computerized registration procedures to facilitate enrollment for students.

Other projects geared toward the promotion of student welfare are: a review of admission policies, increased representation in University committees, institution of the Chancellor's Hour (an opportunity for students to dialogue with the Chancellor and other UP Manila officials), construction of buildings for colleges, upgrading of library and laboratory facilities, construction of more student lounges, a sports and wellness program, an annual job bonanza, "Tawag Na" hotline (counseling service), immunization project, awareness and information campaign against H-fever, leadership training seminars, and fund generation for the construction of a Student Center.

RESEARCH

The establishment of the National Institutes of Health (NIH) through Republic Act 8503 in February 1998 was a big step toward enhancing UP Manila's stature as a center for health research and development. The NIH provides the structure and fosters the environment conducive to research. It now has 24 component institutes and programs. To further enhance its research capability, UP Manila reactivated the University Research Council which recommends research policies and a research agenda for the University to the Chancellor. Also, UP Manila organized courses on research methodology and research management. A fellowship program, the Japan Society for the Promotion of Science (JSPS), provided opportunities to work with Japanese scientists.

A number of research laboratories have been established and funding support for research increased by 700%.

Many researches have been used as bases for policy formulation by the Department of Health and other agencies.

EXTENSION AND PAHINUNGÓD

The University also responded resolutely to the call for intensifying and institutionalizing its extension programs through the Ugnayan ng Pahinungód-Manila, which attracted the biggest number of volunteers, relative to the other UP campuses; the review and strengthening of existing community-based programs; and the initiation of new ones, such as the Field School Program in Tagkawayan, Quezon. Almost every college has its own community-based program and is initiating new ones.

UP Manila colleges also provide continuing professional education to health professionals here and abroad through trainings, seminars and workshops.

Other forms of extension services are consultancies; services as facilitators, lecturers, or resource persons in workshops and trainings; laboratory testing services; and many more.

In 1998, the Philippine General Hospital (PGH), the largest extension unit of the UP System, served a total of 681,467 outpatients and 54,627 inpatients. As the training hospital of UP Manila, PGH also served as training ground for 5,520 medical students, residents, and fellows from 1993 to 1998. It also served non-UP trainees of the health sciences. In the last six years, it trained 3,060 resident physicians.

This integral relation between UP Manila Colleges and PGH provides a textbook example of the synergy of instruction, research and extension.

LIBRARY DEVELOPMENT AND INFORMATION TECHNOLOGY

A big support in the advancement of academic and research activities of the University is library development and information technology. The last six years saw the acquisition of electronic reference resources and the information technology needed to facilitate library services and procedures.

PERSONNEL WELFARE

In 1998 UP Manila was conferred the Gawad Kalinga Award for "Most Employee-Friendly" government agency under the category "State Universities and Colleges" by the Civil Service Commission and the Convenors Group of the Public Sector Employees Association.

Two of the many notable projects for personnel are the UP Manila Creche and Child Center and the Values Orientation Workshop (VOW). The former provide pre-school facilities for children of employees, while the latter has benefited 3,549 employees since it was first conducted in 1994.

Through the Chancellor's Committee on Culture and the Arts, UP Manila also encourages and nurtures artistic and cultural groups.

GOVERNANCE AND ADMINISTRATION, INFRASTRUCTURE DEVELOPMENT AND LINKAGES

Wide consultations marked University governance and administration. From 1994 to 1999, four Assessment, Reaffirmation and Visioning workshops were held, which served as assessment and planning sessions for heads of colleges and units with other officials.

The past six years also saw a massive growth in physical plant facilities and equipment upgrading in the University. Many colleges and units acquired their own buildings and other facilities were renovated.

The Office of Alumni Affairs sponsored annual alumni homecomings; published the first *UP Manila Alumni Directory* and *The Pillars*, a collection of alumni donations, in 1994; and served as an umbrella organization to all college-based alumni associations.

UP Manila were also strengthened academic and research-oriented linkages with other UP autonomous campuses, government agencies, nongovernmental organizations, private institutions, and international agencies.

CELEBRATIONS

While the nation marked the centennial celebration of its freedom with year-long activities, the University did its share in commemorating this significant event through a series of activities which started with the launching rites of the UP Systemwide year-long Celebration last 28 January at UP Manila, the University's original site.

Former President Fidel V. Ramos, as guest of honor and keynote speaker during the launching, highlighted the important role of UP in nation-building and affirmed the government's continued support for the University. Three other events during the launching were the proclamation of the UP Decade 1998-2008, the launching of the One Billion Peso Alumni Centennial Fund Campaign, and the groundbreaking rites for the Apolinario Mabini Carillon of UP Manila.

Capping the centennial celebrations was UP Manila's hosting of the UP Systemwide lantern parade which was held for the first time ever at the Quirino Grandstand, Rizal Park. The parade brought together all the autonomous cam-



*UP Systemwide Lantern
Parade*

puses. The first eight colleges of the University were represented by floats, lanterns, and street theaters depicting festivals and important periods in the nation's history. ■

ACADEMIC PROGRAMS

ACADEMIC PROGRAMS

UP Manila currently offers 70 curricular programs, distributed as follows: three prebaccalaureate certificates, 24 baccalaureate programs, seven postbaccalaureate certificates/diploma programs, 27 graduate programs, and nine postgraduate degree programs. In June 1999, five new postbaccalaureate diploma programs and 14 new graduate programs were added, including an innovative MD-PhD program.

These programs serve as models for the health science education community because of their pioneering nature, their community-based component, and their emphasis on excellence and relevance to the critical needs of the country.

UP Manila has assisted other health schools in nourishing their own medical or nursing programs and in developing innovative course offerings in the area of health. To cite a few, UP Manila offers through its Leyte-based School of Health Science a unique step-ladder curriculum. The College of Medicine has its Integrated Arts & Medicine Curriculum or INTARMED, a seven-year medical program which allows high school graduates to enroll directly at the College of Medicine. The College of Nursing has its competency-based Nursing program.

In 1996, UP Manila instituted the BS Computer Science and the BS Biochemistry. The BS Computer Science program was adopted from the existing program of UP Los Banos, with some modifications to suit the needs of a health science community. The BS Biochemistry program provides the students with an understanding of the molecular basis of life processes. In particular, since UP Manila is a campus for medical and health related professions, biochemistry serves as a tool in understanding human processes such as those involved in the immune systems, as well as in diseases and other health related problems.

The interdisciplinary/transdisciplinary Bachelor of Arts in Behavioral Sciences was instituted in 1999 to equip students with the necessary knowledge and skills to understand the dynamics of human behavior and address its attendant problems in the context of Filipino society, and culture.

Existing curricular programs have been strengthened with the institution of new tracks, i.e., Environmental Health for the Master of Science in Public Health, Nutrition for the Doctor of Public Health, and the following areas for the Master of Science in Clinical Medicine: Child Health, Family Medicine, Obstetrics and Gynecology.

Five postbaccalaureate diplomas—Diploma in Clinical Medicine (Child Health), Diploma in Clinical Medicine (Family Medicine), Diploma in Clinical Medicine (Obstetrics & Gynecology), Diploma in Clinical Epidemiology, and the Diploma in Physiology—have been instituted.

New Master's programs have been developed and will be implemented effective academic year 1999-2000. These include: Master of Rehabilitation Science, Master in Orthopedics, Master of Arts in Health Policy Studies (Health Social Science), Master of Arts in Health Policy Studies (Health Science), Master in Basic Medical Sciences, Master of Clinical Audiology, MD-PhD, and Master of Management with tracks in Public Management, Business Management, and Educational Management. In 1999, the two-track residency program will also become operational.

The College of Allied Medical Professions (CAMP) is the first in the country to offer the Master of Rehabilitation Science program. Students may enroll either in the generic curriculum or in the Speech Pathology track.

The Master in Orthopedics program is the first of its kind in the country. It is a two-year program with emphasis on the higher basic sciences and the foundations of teaching and learning. The Master in Orthopedics graduate is expected to be a proficient orthopedic clinician with a solid basic science background.

The Master of Arts in Health Policy Studies, a joint undertaking of the College of Arts and Sciences and the College of Public Health, has two tracks. The Health Social Science track seeks to study the health policy process within the sociocultural context. The Health Science track seeks to provide the foundation for the understanding of the public health fields as a basis for health policy development.

The Master of Basic Medical Sciences degree program is a multidisciplinary offering designed to develop teaching proficiency in the sciences basic to medicine. Its offering will meet the demands of the local and regional health human resource development in 30 medical schools and more than 30 allied medical schools.

The Master of Clinical Audiology is a joint program of the College of Medicine and the College of Allied Medical Professions in collaboration with McQuarie University of Australia and the University of Sto. Tomas. It is meant to be a two-year entry-level master's program for graduates of health science degrees, covering the areas of audiologic rehabilitation and program development.

Another trailblazing innovation is the MD-PhD Program, which seeks to develop medical doctors with a strong background in basic and/or clinical research as part of their biomedical career. The PhD aspect of the combined program aims to provide students with an advanced graduate education while they are completing a medical degree. Initially, the combined MD-PhD program will include the following areas of concentration: Biochemistry & Molecular Biology, Physiology (Molecular),

Pharmacology (Toxicology & Therapeutics), Medical Microbiology & Immunology, and Medical Parasitology.

The Master of Management program, also offered in other autonomous campuses of the University, has three areas of specialization: Public Management, Business Management, and Educational Management. The College of Arts & Sciences has moved for the program's adoption in UP Manila because of the persistent demand of employees in both government and nongovernment organizations for a program that will further hone their management skills.

The Two-Track Residency/Fellowship Program gives residency/fellowship trainees two options for specialty training. The regular track (which is essentially the same as residency/fellowship programs currently being offered at PGH) will be offered to those whose career goals are directed more toward clinical practice. The academic track, on the other hand, will be offered to those whose long-term career goals are directed toward an academic career, whether with UP or with some other academic institution, as well as to a select group of residents and fellows who have been identified as potential faculty of the University.

During the period 1993-1999, two undergraduate programs, BA Economics and BA History, were frozen following an earlier recommendation of a Presidential Committee to Review Academic Programs. Three PhD programs, the PhD Biochemistry, the PhD Pharmacy and the PhD Pharmaceutical Chemistry have also been frozen due to lack of faculty and enrollees. Effective AY 1999-2000, however, the PhD Biochemistry program shall be revived.

LIST OF PROGRAMS FROZEN (1993-1999)

Undergraduate

- BA Economics
- BA History

Graduate

- PhD Biochemistry
- PhD Pharmacy
- PhD Pharmaceutical Chemistry

LIST OF DEGREE PROGRAMS INSTITUTED (1993-1999)

Undergraduate

- Bachelor of Science in Biochemistry

Table 2-1 ■ Degree Programs Offered by UP Manila

PROGRAMS	COLLEGE	PROGRAMS	COLLEGE
Prebaccalaureate		Graduate	
Cert. in Barangay Health Work	SHS	Master in Rehabilitation Science (Speech Pathology)	CAMP
Cert. in Community Health Work	SHS	MS Dentistry (Orthodontics)	CD
Cert. in Community Health Nursing	SHS	MS Biochemistry	CM
		MS Epidemiology (Clinical Epidemiology)	CM
		MS Clinical Medicine (Surgery)	CM
Baccalaureate		MS Pharmacology	CM
BS Occupational Therapy	CAMP	MS Physiology	CM
BS Physical Therapy	CAMP	MA Nursing (Adult Health Nursing)	CN
BS Speech Pathology	CAMP	MA Nursing (Maternal and Child Health)	CN
BA Developmental Studies	CAS	MA Nursing (Nursing Service Administration)	CN
BA Economics**	CAS	MA Nursing (Community Health)	CN
BA History**	CAS	MA Nursing (School Health)	CN
BA Organizational Communication	CAS	MA Nursing (Psychiatric Nursing)	CN
BA Philippine Arts	CAS	MS Pharmacy (Industrial Pharmacy)	CP
BA Political Science	CAS	MS Pharmacy (Pharmaceutical Chemistry)	CP
BA Social Sciences (Area Studies)	CAS	MS Pharmacy (Hospital Pharmacy)	CP
BA Social Sciences (Behavioral Studies)	CAS	MS Pharmacy	CP
BS Biology	CAS	Master of Hospital Administration	CPH
BS Biochemistry***	CAS	Master of Occupational Health	CPH
BS Computer Science***	CAS	Master of Public Health	CPH
BS Nursing	CN	MS Epidemiology (Public Health)	CPH
BS Industrial Pharmacy	CP	MS Public Health (Biostatistics)	CPH
BS Pharmacy	CP	MS Public Health (Nutrition)	CPH
BS Public Health	CPH	MS Public Health (Medical Microbiology)	CPH
BS Community Health	SHS	MS Public Health (Medical Parasitology)	CPH
BS Nursing	SHS	MS Public Health (Environmental Health)	CPH
BS Basic Medical Science	CM	Master in Health Professions Education	NTTC-H
Doctor of Dental Medicine	CD		
Doctor of Medicine	CM	Postgraduate	
Doctor of Medicine	SHS	Ph D Biochemistry**	CM
		Ph D in Nursing	CN
Postbaccalaureate		Ph D in Pharmacy**	CP
Certificate in Biochemistry	CM	Ph D Pharmaceutical Chemistry	CP
Certificate in Physiology	CM	Doctor of Public Health with tracks in	CPH
Diploma in Dental Public Health	CPH	Epidemiology	
Certificate in Health Prof. Education	NTTC-HP	Nutrition	
Certificate of Proficiency in Orthodontics	CD	Medical Microbiology	
Certificate in Hospital Administration	CPH	Medical Parasitology	
Certificate in Toxicology	CM	Health Promotion and Education	

- Bachelor of Science in Computer Science
- Bachelor of Science in Nursing (SHS)
- Bachelor of Arts in Behavioral Science

Postbaccalareate

- Diploma in Clinical Medicine (Child Health)
- Diploma in (Clinical Epidemiology)
- Diploma in Clinical Medicine (Family Medicine)
- Diploma in Physiology
- Diploma in Clinical Medicine (Obstetrics & Gynecology)

Graduate

- Master of Rehabilitation Science (Speech Pathology)
- Master of Rehabilitation Science (Generic)
- Master in Orthopedics
- Master of Arts in Health Policy Studies (Health Social Science)
- Master of Arts in Health Policy Studies (Health Science)
- MD-PhD
- Master in Basic Medical Sciences
- Master of Science in Clinical Medicine (Child Health)
- Master of Science in Clinical Medicine (Family Medicine)
- Master of Science in Clinical Medicine (Obstetrics & Gynecology)
- Master of Clinical Audiology
- Master of Management (Business Management)
- Master of Management (Public Management)
- Master of Management (Educational Management)

LIST OF PROGRAMS REVIEWED/STRENGTHENED (1993-1998)

Undergraduate

- Bachelor of Science in Nursing
- Bachelor of Science in Pharmacy
- Bachelor of Science in Public Health
- Bachelor of Science in Computer Science
- Bachelor of Arts in Political Science
- Bachelor of Arts in Development Studies
- Bachelor of Arts in Social Sciences (Area Studies)
- Bachelor of Arts in Social Sciences (Behavioral Studies)
- Bachelor of Science in Physical Therapy
- Bachelor of Science in Occupational Therapy
- Bachelor of Science in Speech Pathology

Graduate

- Master of Science in Public Health
- Master of Arts in Nursing
- Master of Science in Clinical Medicine
- Doctor of Public Health
- PhD Nursing

THE COMMUNITY HEALTH AND DEVELOPMENT PROGRAM

At the start of her term in 1993, Chancellor Perla D. Santos Ocampo constituted a Committee on Community Health and Development to:

- Review existing community-oriented and community immersion programs/activities of U.P. Manila;
- Identify ways and means by which these programs/activities can be coordinated to make U.P. Manila's activities truly interdisciplinary and for these to have an impact on the communities being served; and
- Recommend changes/innovations in the curricular programs.

In addition, the committee members decided to develop an instructional plan for an interdisciplinary community-based generic core module; pilot test the core module; and evaluate its implementation.

The Community Health and Development Core Module is designed to provide students opportunities to apply and further enhance their competencies as members of an interdisciplinary team in a community setting.

In the University, the traditional classroom gives limited learning experiences to the students, whereas a community, which is a microcosm of society, provides a large volume of new learning experiences that are not available to students inside the classroom. These new experiences will complement the students' academic knowledge and make better professionals out of them. They will be exposed to social problems that will motivate them further to acquire the knowledge needed to contribute to the development of the community.

The community for its part will now have access to the expertise of the students.

The University, through its contact with the community, will increase its capability to advance knowledge relevant to social development.

The Primary Health Care (PHC) approach is the developmental theory that underpins community Health and Development programs of UP Manila. The PHC recognizes the fact that health problems are intertwined with other social problems and that the solutions to these health problems are closely connected to the solu-

tions of other social problems. This justifies the multidisciplinary approach to community development.

Following this framework, a community worker is expected to:

- Manage programs and projects in the community with other sectors and members of the team;
- Conduct training/health education with special groups for appropriate intervention addressing common problem/s identified;
- Work effectively with the families, individuals, and other members of the team in the management of identified problem/s;
- Conduct/participate in a study of problem area/s in the community;
- Organize community for action toward development;
- Establish linkages with other sectors and other members of the team for networking of activities;
- Facilitate the solution of family/individual crisis through counselling; and
- Work with relevant group/s to address significant issues in the community.

THE STUDENT BODY

Enrollment Data

In the past six years, UP Manila had one of the biggest enrollment figures among the health science schools in the Philippines, both at the undergraduate and graduate levels.

The average annual enrollment at the undergraduate level for the six-year period is 4,317 and 496 for the graduate level.

While practically all the degree programs have posted increases in enrollment, the Bachelor of Science in Nursing suffered a decline of 31%. The reason for this could be market-driven. The Philippines has an oversupply of nurses and there are now fewer opportunities abroad for nurses. The decline in enrollment in the College of Nursing at the undergraduate level is compensated by a 142% increase in its graduate programs. This appears to be a result of a provision in the Nursing Law which requires one to have a graduate degree before one can teach in any College of Nursing.

Undergraduate enrollment from 1993 to 1998 increased by 22%. The rate of increase at the graduate level is 48%.

Graduation Data

UP Manila graduated a total of 4,274 students between 1993 and 1999. This is broken down as follows: 3,899 with baccalaureate degrees and 585 with master's degrees.

The College of Arts and Sciences, the College of Medicine, and the School of Health Sciences graduated the most number of students at the baccalaureate level. At the graduate level, the College of Public Health produced the most number of graduates.

The average rate of graduation is 19% for the undergraduate level and 21% for the graduate level. The School of Health Sciences posted the highest average graduation rate at the undergraduate level at 81%, followed by the College of Medicine at 21%, then by the College of Nursing which registered an average graduation rate of 20%. The College of Dentistry has the lowest average rate of graduation in the undergraduate level at 9%. It has the highest rate, however, at the graduate level, with 64%.

At the graduate level, the College of Nursing has the lowest average graduation rate at 4%, followed by the College of Pharmacy at 5%, then College of Medicine at 9%.

THE FACULTY

Of UP Manila's 624 full-time faculty, 553 (88%) have graduate degrees. Of these, 65 are PhD/doctoral degree holders and 488 master's degree holders. The bulk of the faculty are medical doctors.

Of the 427 part-time faculty members, 348 have master's degrees while 27 have PhD/doctoral degrees. Moreover, 26 and 44 faculty members are currently pursuing graduate and postgraduate degrees, respectively. It is projected that by the year 2008, there will be 200 faculty with PhDs.

The faculty members of UP Manila are recognized in their respective fields of specialization. Most have done research in various fields of health with policy implications and applications.

To enhance the faculty's personal and professional skills, regular seminar workshops are conducted on computer literacy, production of instructional materials and multimedia strategies, improving teaching competence, enhancing research capabilities, module and textbook writing, and gender sensitivity.

Institutionalized programs such as the DOST-JSPS Program, PCHRD Scholarship Program, DOST-ESEP program, and the UP Manila Development Foundation have focused on faculty development.

The Department of Science and Technology-Japanese Society for the Promotion of Science (DOST-JSPS) program in the field of Medical Sciences has provided the

faculty and research staff opportunities to study in Japan, to do research in collaboration with a Japanese scientist, and to attend scientific seminars and conferences.

The priority fields for Medical Sciences were Perinatology and Trophoblastic Diseases, Nutrition, Environmental and Occupational Health, Mental Health, and Health Economics, Immunology and Microbiology, Hepatitis, Hepatocellular Carcinoma and Other Malignancies, Pharmaceuticals, and Degenerative and Metabolic Disorders.

From 1993 to 1998, 60 faculty and research staff of UP Manila benefited from the program which had UP Manila as core university for medical science in the Philippines and Kobe University as the counterpart in Japan. In the same period, four completed their PhD by research under the RONPAKU program of JSPS.

Three international seminars in the field of medical sciences under sponsorship from the DOST-JSPS program were held in the Philippines:

- Asian Seminar Workshop on Primary Health Care Approach and Academic Community Health, held on 1-5 November 1986 at the National Training Center for Research and Development, UP Los Baños.
- International Seminar on Nutrition in Health and Disease, held on 16-18 October 1991 in UP Manila.
- International Symposium on Disasters and Health, held on 16-18 October 1996 at the Westin Philippine Plaza Hotel.

Through the Philippine Council for Health Research and Development (PCHRD), a number of faculty have availed of local fellowships for their master's and doctoral degrees, as well as thesis and dissertation grants.

The UP Manila Development Foundation was activated in 1996 to support programs for faculty development, especially for professorial chairs and faculty grants.

UP Manila has the following professorial chairs: 27 funded out of the UP Development Fund; 20 from the UP Foundation, Inc.; 10 from the Friends of UP Foundation in America (FUFPA). From the same funds, UP Manila has 58 faculty grants, distributed as follows: 55 from the UP Development Fund, 2 from UP Foundation, Inc., 1 from FUFPA. There are 23 chairs whose funds are managed by the UP Medical Foundation, Inc.

Through the efforts of the incumbent Chancellor, new professorial chairs, faculty grants and awards of excellence have been solicited, with funds managed by the UP Manila Development Foundation, Inc.

THE NATIONAL TEACHER TRAINING CENTER FOR THE HEALTH PROFESSIONS

The teaching competence of teachers is honed through the country's one and only Master in Health Profession Education (MHPed) program which UP Manila started offering in 1975.

The National Teacher Training Center for the Health Professions (NTTC-HP) has graduated a total of 27 health professionals, including those from other schools. Aside from the MHPed, NTTC-HP conducts seminars and workshops on different aspects of teacher training. In the last six years, it has conducted a total of 126 such seminars.

EDUCATION ORIENTATION AND METHODOLOGY

UP Manila subscribes to the philosophy of holistic and integrated learning. It applies principles of confluent education in which objectives in the cognitive, affective, and psychomotor fields are developed and enhanced through approaches such as Problem-based Learning (PBL), Competency-based Curriculum (CBC), Community-based Education (CBE), and Interdisciplinary Approach (IDA).

Table 2-2 ■ Summary of Performance of UP Manila Graduates in Licensure Examinations

Board exam	Date	1993	1994	1995	1996	1997	1998
Dentistry	May	100% (5)	100% (5)	100% (8)	100% (9)	100% (8)	100% (8)
	December		100% (7)		100% (2)	100% (5)	
Medicine	February	100%	100% (1)	100% (1)	100%	100% (3)	
	August	100% (1)		97.02% (3)	100% (6)	100% (5)	92.2% (6)
Nursing	January					100% (5)	
	May	100%	100% (6)			100% (7)	
	June		100% (4)				
	August	100% (10)					
Pharmacy	November		100% (2)		100% (7)	100% (3)	
	January	100% (5)					
Occupational Therapy	July	100% (3)	100% (1)	100% (11)	100% (5)	100% (2)	97.75% (10)
		94.4% (9)	100% (6)	100% (13)	100% (3)	100% (2)	80%
Physical Therapy		93.1 (3)	87% (1)	80%	84%	68%	73%
Doctor of Medicine (SHS)	February				60%		
	August				80%		
Midwifery (SHS)				100% (5)			97.20%

() No. of examinees in the top 10 places.

INSTRUCTIONAL MATERIALS



The Publication Program of the Information, Publication and Public Affairs Office (IPPAO) launched its maiden publication in 1994—a book entitled *From Victims to Survivors: Psychosocial Intervention in the Management of Disasters* by Drs. Lourdes L. Ignacio and Antonio Perlas. A winner of the National Academy of Science and Technology outstanding publication award, the book chronicles the intervention measures undertaken by the authors and other caregivers in helping victims of disasters in 1990.

This was followed by the publication of the *UP Manila Journal* in 1995 and by numerous books, laboratory manuals, and modules on varied health topics. In 1998, the office published the *Philippine Textbook on Medical Parasitology*, the first local textbook offering practical diagnosis and treatment of parasitic diseases. IPPAO also published the *Manual of Orthopedic Emergencies*, *Pathology 101: A Laboratory Manual*, *A Century of Public Health in the Philippines*, and *A Laboratory Manual for Prosthodontics 31-B*.

Four books by UP Manila faculty members were published by the Sentro ng Wikang Filipino: *Ang Anatomiya at Morpolohiya ng Ngipin* by Dr. Leonor Lago, *Manwal para sa Pagsasanay ng CBR Volunteers* by Prof. Lucia Magallona, *Pag-aaruga sa mga Taong May Edad Na* by Prof. Letty Kuan, and *Entomolohiya Medikal* by Dr. Lilian delas Llagas.

PERFORMANCE IN BOARD EXAMINATIONS

No other health professions school comes close to UP Manila in terms of excellent performance in board examinations (Table 2.2).

LEADERSHIP IN PROFESSIONAL ORGANIZATIONS AND EDUCATIONAL INSTITUTIONS

Many of UP Manila's graduates have applied their expertise, technical knowledge, and competence in organizing, mobilizing, and leading local and international government and private professional health organizations, and in providing services and consultancies to educational institutions in health.

A big percentage of its faculty members is seconded to other health and learning institutions, both local and international, where they exercise a great deal of influence and advocacy in determining the thrusts and policies on health education and health program planning and implementation.

Among the institutions that have benefited from UP Manila's pool of experts are the World Health Organization, SEAMEO-TROPMED, CHASPPAR, International Society of Tropical Pediatrics, the International Pediatric Association, Kobe University, World Federation Society of Anesthesiologists, World Confederation of Physi-

cal Therapy, Department of Health, Research Institute for Tropical Medicine, Department of Science and Technology, the Philippine Pediatric Society, Philippine Nurses Association, the Philippine Medical Association, the Philippine College of Surgeons, and other health professional organizations.

CENTERS OF EXCELLENCE/DEVELOPMENT

The Colleges of Medicine, Nursing, and Dentistry have been recognized by the Commission on Higher Education (CHED) as Centers of Excellence. The College of Arts & Sciences has been declared a Center of Development for Biology.

Moreover, UP Manila's College of Public Health has been recognized by the World Health Organization (WHO) as a Collaborating Center for Schistosomiasis, and Health Promotion and Education, and as a SEAMEO (SouthEast Asian Ministers of Education Organization)-TROPMED (Tropical Medicine) Center. The College of Nursing has also been recognized by the World Health Organization as a Center for Nursing Research and Development.

THE NATIONAL GRADUATE SCHOOL FOR THE HEALTH SCIENCES

In April 1999, the Board of Regents approved the proposal to upgrade the Graduate School of UP Manila into the National Graduate School for the Health Sciences. The objectives of the NGSHS are:

- To enrich existing degree programs while enhancing the development and implementation of innovative, globally competitive multidisciplinary graduate programs responsive to the current thrusts of the University and demands of health professionals and educators at the local and international levels.
- To optimize convergence of graduate faculty and resources between and among the different degree-granting units, for globally competitive graduate aspirations and excellence in maintaining quality standards of teaching locally responsive graduate programs, advanced quality research and extension work, in support of UP Manila's goals and commitment to help improve quality of life.
- To generate resources and manage grants, aids, donations, fellowships, and other graduate education support for the welfare of the UP Manila faculty and the public who seek equity in scholarly opportunities.
- To create local, regional, and international linkages and networks of complementary centers of excellence in health sciences for resource sharing and availment of the latest developments in education, research, and health service delivery.
- To establish postdoctoral and postmasteral fellowships to update teaching, research, extension, and production and to provide efficient and effective

planning and management of graduate programs through periodic assessment or evaluation; and

- To provide efficient and effective planning and management of graduate programs through periodic assessment or evaluation.

Of the 63 health science programs offered nationwide, 29 (46%) are administered by UP Manila, with majority of the researches and professional graduate programs on health sciences and health policy being offered only at UP Manila. Examples of these programs are the Master of Science in Dentistry (Orthodontics) and Master of Arts in Health Policy Studies which were developed in response to the need for multidisciplinary programs.

At present, UP Manila has the biggest enrollment among health science schools in the Philippines. In 1998-1999, it had a graduate enrollment of 578 students, 48% more than the enrollment in 1993. Total graduate enrollment from 1993 to 1998 was 2,887.

With the number of competent health professionals it produces each year, UP Manila has been responding adequately to the core manpower development program of the Department of Health, Department of Labor, and most of the industrial institutions.

THE FACULTY OF HEALTH SCIENCES (FORMERLY SCHOOL FOR DISTANCE EDUCATION-MANILA)

The Faculty of Health Sciences (FHS) of the UP Open University is offering, in cooperation with UP Manila, the Master of Arts in Nursing, Master of Arts in Public Health, and Master in Hospital Administration via distance education.

Non-formal/continuing education programs conducted include:

- Teleconferences with nurses of the DOH conducted by the UP College of Nursing with satellite sites in Tuguegarao, Legaspi City, Davao City (ongoing), and Zamboanga City (until 1997)
- Continuing Medical Education via teleconferencing with recipients in Zamboanga City Medical Center and the Tawi-Tawi Provincial Health Office

Also being offered are a short course on Caring for the Special Child, a short course on Health Informatics, and a short course on "Health Systems Research". Proposed courses are a short course for midwives on "Suturing" and a short course for elementary school teachers entitled "Prevention of Cardiovascular Diseases."

SENTRO NG WIKANG FILIPINO

Naisalin kay Dr. de las Llagas ang pamumuno ng SWF-UPM noong ika-1 ng Nobyembre 1997. Gumawa ng sariling pagkakakilanlan ang SWF-UPM na tinawag na "*Bulong ng Bubuyog*". Ito ay nagsisilbing midyum ng komunikasyon sa pamamagitan ng pagbubulong at paghahatid ng mga balita. Noong Mayo 1998 nagpasalin sa Wikang Filipino ang SmithKline Beecham International ng kanilang Package of Health Care Services na may pamagat na "*Intestinal Parasite Control Program*."

Inilunsad ang mga textbuk ng SWF (*Entolomohiya Medikal, Morpolohiya at Anatomiya ng Ngipin, Manwal ng mga Community-Based Rehabilitation Center (CBR), at Pag-aaruga sa mga Taong May Edad Na*) kasabay ng iba pang publikasyon ng UP Manila noong ika-19 ng Hunyo 1998 sa Punong Aklatan ng Unibersidad. Natapos ang *Glosari ng mga Terminong Agham Pangkalusugan* at kasalukuyang inihihingi ng pondo sa PCHRD ang pagpapalimbag nito. ■

STUDENT WELFARE

ADMISSION REQUIREMENTS AND SELECTION PROCESS

Aside from Systemwide policies and guidelines on admission such as the UP College Admission Test and the Excellence-Equity Admission System, UP Manila continues to find ways of democratizing admission policies and enrollment.

Among the initiatives to democratize access is the affirmative action program (AAP) of the Ugnayan ng Pahinungód and the Summer Bridge Program (SBP) of the Learning Resource Center. The AAP aims to help third year high school students of underrepresented communities improve their Mathematics, English, Science and History competencies and to entice them to study at UP. Since the program was implemented in 1996, faculty and student volunteers have been deployed to several high schools in Jolo, Zamboanga del Norte, Occidental Mindoro, Palawan, and Bukidnon. The program has benefitted 625 high school students.

The SBP consists of a three-week intensive tutorial sessions which are complemented by psychosocial development sessions conducted by the Office of Student Affairs. The program helps bridge the gap between the students' exit skills at the secondary level and the requisite entrance skills for their first year in the University. The program also focuses on developing skills in Communication, Mathematics, and Chemistry.

In 1996, the Leyte-based School of Health Sciences, which offers the unique step-ladder health curriculum, admitted lateral entrants from Palawan and the Autonomous Region of Muslim Mindanao to its community medicine program. The School is targetting Barangay Health Work students from the Cordillera Autonomous Region, Romblon, Mindoro, Cotabato, Iloilo, Guimaras, Misamis Occidental, Masbate, Bukidnon, Surigao, Bicol, and Cebu.

COMPUTERIZED REGISTRATION AND STUDENT RECORDS

Efforts to streamline registration procedures started in 1998 with the computerized enlistment of 4,810 students. With computerization, the whole registration process, including the processing of the student's identification card, takes only 20 minutes. Moreover, the schedule and grades of students from first year until their graduation are placed in an automated database.

The program is being facilitated by the Wide Area Network (WAN) linking the offices of the College Secretaries, the Registrar, the Assistant for Academic Affairs, and the Information Management Support Service.

STUDENT TRACKING AND SUPPORT SERVICES

In 1998, the development of an integrated student tracking system was initiated to monitor the students' academic performance and detect early problems that may affect learning. The institution of this tracking system was part of the recommendations of the Universitywide study on democratization of access to education. Although there were existing structures for tracking student performance at the college levels, it was deemed necessary that an integrated system be devised to standardize implementation of the University's academic rules and guidelines and to provide psychosocial support to students whose academic performance may be affected by social, psychological, and financial factors.

OFFICE OF STUDENT AFFAIRS SERVICES

UP Manila's vision of an informed, enlightened, and involved studentry is concretized through the six programs of the Office of Student Affairs, as follows:

Scholarship and Financial Assistance Program

The program provides financial assistance to deserving students who are unable to afford a UP education. The administration of the UP Systemwide's Socialized Tuition and Financial Assistance Program (STFAP) and scholarships given by other government agencies, private donors, and special agencies falls under this program. Other financial assistance packages such as student loans and student assistantships are also managed by OSA through this program.

During the past six years, a total of 11,820 students in UP Manila availed of STFAP grants. Most of those in Bracket Arabic numeral 1 were students of the Leyte-based School of Health Sciences.

To date, some 20 types of scholarships given by private individuals, local and international institutions, private organizations, and NGOs have been awarded to 427 students. A recent scholarship donation is the Franklin Drilon Scholarship,

which is open to freshmen and which covers living allowances and book allowances.

Launched recently was the Comprehensive Loan and Resource Program (CARE) which aims to generate funds to help students in their emergency needs. Initially open to students from STFAP brackets 1-4, CARE hopes to generate more funds from private donors.

A total of 1,068 applications for student assistantships were evaluated and processed by OSA during the past six years, or an average of 178 students per year.

Meanwhile, some 1,037 students were granted student loans from 1993 to 1999, corresponding to an equivalent amount of P3,815,687. The loans are given to students to help them pay for their tuition, books, or emergency needs.

Student Activities Program

This program oversees all matters directly related to students and the conduct of student organizations. Under this program, regular activities include the holding of freshmen orientation sessions and, starting in 1996, the parents' orientation program; accreditation and monitoring of student organizations; supervision of University Student Council and college council elections; and supervision of the selection of the staff of the *UP Manila Collegian*.

In addition, initiatives in the past six years include the institutionalization of the Student Summit as a training ground for student leaders; the creation of the Inter-Fraternity/Sorority Council; and the formulation of new guidelines on allocation of tambayans and on accreditation of student organizations.

In 1995, the Sports Science and Wellness Center was built. It has become the venue for many sports and wellness activities such as ballroom dancing, aerobics, tennis, and fencing.

OSA continues to coordinate the Chancellor's Hour, a dialogue between students and the UP Manila Chancellor and other UP Manila officials, where issues are clarified, programs are presented and discussed, and courses of action are agreed upon.

Guidance and Counseling Program

This program seeks to address the students' psychosocial problems affecting academic performance through a system of referrals where college-based guidance counselors and officers of student relations work hand in hand with OSA. Two regular projects are being implemented under this program: the provision of guidance and counseling services to students and psychosocial testing for all incoming freshmen.

Other activities include the annual job bonanza, the establishment of counseling nooks in each college, leadership training and team building seminars, peer facilitators' training, stress management, and values seminars.

To encourage more students to avail of guidance and counseling services, three more projects were initiated in 1997 and 1998: "Tawag Na", a telephone counseling program; the Early Detection Program where faculty counselors were trained by the office to identify potential problem students during the early stages of their stay in campus; and the Integrated Student Tracking System.

In 1993-1999, a total of 18,832 clients were given these services: individual counseling, 9,732; group counseling, 2,817; career information and placement service, 2,025; and psychological testing, 4,258.

Auxiliary Services

Auxiliary services include facilitation of dental and medical examinations of students; drawing up of guidelines on canteen operations and monitoring of food services; proposing a health insurance scheme for students; devising a system for more efficient parking and traffic flow; and survey of existing dormitory facilities.

In cooperation with the College of Arts and Sciences, OSA launched the "Operation Linis, Alis Aedes" project as an awareness and information campaign against H-fever. Initiated in 1998 was the immunization project, where more than 1,000 students availed of free Measles, Mumps and Rubella (MMR) vaccines donated by a drug company.

Student Disciplinary Tribunal

With the creation of the Student Disciplinary Tribunal (SDT), cases are now resolved faster. So far, the SDT has handled 25 cases involving the STFAP (13 cases), fraternities (9), and others. Under this program, the SDT also initiated seminars to clarify the implementing guidelines on the anti-sexual harassment policy, anti-hazing law, and University rules on conduct and discipline, particularly the amended rules governing fraternities and sororities.

Services to student organizations

Aside from accrediting student organizations, OSA assists them in undertaking their various projects and activities. Services to student organizations include provision of *tambayans* (42 were given from 1993-1999) for various college-based organizations; the designation of a Student Center to house the University Student Council office, the Manila Collegian office, a seminar room, and a studio room for performing arts groups; provision of additional bulletin boards for posting; formulation of guidelines of occupancy for *tambayans* and for posting of materials; sponsoring of student activities through resource generation, referrals, and assistance in the use of venues; and seminars to clarify guidelines on sexual harassment, hazing, and other University issues.

Various facilities were also constructed and/or renovated to serve as venues for student activities such as theaters for concerts and other stage presentations. Constructed were the Class of 1972 Theater at the College of Medicine, and the Sports and Wellness Center for sports activities and PE classes. Renovated were the CAS Little and Main auditoriums at the College of Nursing and College of Pharmacy.

Measures were also devised to reduce fraternity-related violence such as the creation of the Inter-fraternity/Inter-sorority Accord Renewal in the aftermath of the Icasiano case, and regular meetings with fraternity and sorority heads.

Expanded ROTC Program

The Expanded ROTC program is the modified two-year basic ROTC course provided for in the Implementing Rules and Regulations of R.A. 7077. It is composed of basic military subjects in the first curriculum year and any of three service components in the second year, namely Military Training Service (MTS), Civic Welfare Service (CWS), and Law Enforcement Service (LES).

CWS Modules

The CWS is comprised of the following modules: tutorials module, ecoscouts module, peer counseling module, and PGH immersion module. Recommended by a committee created by the UP Manila Chancellor, they are actually existing programs of the Ugnayan ng Pahinungod. The Tutorials Module aims to deploy ROTC cadets in public elementary schools to tutor elementary students, particularly slow learners. The Peer Counseling Module trains young volunteers by enhancing their counseling and facilitative abilities and coping skills.

On 12 January 1998, 17 ROTC cadets, trained in facilitating and counseling and in writing/implementing the Total Person Experiential Learning activities, were introduced to the Kanluran sa ER-MA, Ministry, Inc., a drop-in house for

Table 2-3 ■
Summary of Student Services Rendered by the Office of Student Affairs, 1993-1999

	1993	1994	1995	1996	1997	1998	1999	TOTAL
No. of Student Assistants	135	149	150	155	240	239		1068
Amt. Loaned to Students (P)	543104	677172	814410	788806	450656	541537		3,815,685
Counseling services	2965	4226	3361	3014	2203	3063		18,832
Training seminar participants	525	494	948	730	1080	227	228	4232
Consultation	1019	1483	955	1258	1343	1415	439	7912
Physical exam	3451	4018	3451	2941	5134	4631	2206	25832
Infirmary admission	7	14	6					27
Referrals to other OPD clinics	261	131	250	285	299	228	78	1532
SDT Cases	10	10		1		4		25

streetchildren coming from dysfunctional families and abused children. The cadets were required to render 60 training hours from 12 January to 20 March 1998. Each of the three groups took care of a particular group of children for the whole duration. Two cadets were assigned as monitors and processors of the different activities.

The Ecoscouts Module deploys cadets to schools and communities to teach target clients, particularly unemployed individuals with low family incomes, skills in soap making, paper recycling, container gardening, and food processing. The module also aims to help organize the Ecoscouts movement.

For the tutorials, ecoscouts and peer counseling modules, CAS proposed the creation of the UP Alternative School to provide free educational opportunities to those deprived of formal schooling. The result was the UP Manila Alternative Education Program for Streetchildren (UPMAEPS). UPMAEPS is an integration of the programs on tutorial, ecoscouts, and peer counselling. Its vision is to provide an educational program for streetchildren that will enable them to join the formal school system. Classes for this project started in June 1998 with 50 students (composed of out-of-school youth from Leveriza) and with science, mathematics, and Philippine History and Economics as initial subjects. Cadet-teachers were divided into three groups (tutorials, livelihood, and module and teaching supplements).

The PGH Immersion Module

This module was developed and is being implemented by the PGH Department of Nursing through its integration with the Hospital Volunteer Program.

Under the PGH Immersion Module, students are assigned to work as aides or assistants in any health care area in PGH on a semi-voluntary basis. A student works as a volunteer but at the same time earns academic units upon fulfilling the required 51 hours per semester, for two semesters. The students are assigned tasks related to patient care such as taking vital signs, dressing a wound, conducting a patient from one place to another, applying first aid measures, etc.

THE LEARNING RESOURCE CENTER

LRC services include the following:

- Free tutorials in Communication, Science and Mathematics (faculty and peer assisted and self-instructional). Modules are also available.
- LRC Multimedia Library (print and non-print i.e. CD-ROMs)
- Audiovisual Facility (including a cable TV connection to give students exposure to international and informative programs)
- Computer use and computer literacy training
- Community Bulletin Board for the promotion and announcement of MLRC



The UP Manila Learning Resource Center conducts enrichment and instructional assistance programs, life skills development, and monitoring and evaluation programs.

activities/projects as well as those of other institutions and agencies.

- Sponsorship of workshops/seminars/symposia on various areas of interest and skills development. Cultural awareness and social skills development are in the priority list of activities to be pursued this school year 1999-2000.
- Life Skills Development Program in coordination with the Guidance and Counseling Office of the Office of Student Affairs.

The LRC provides the same services to students enrolled for the summer (except for the Life Skills Development Program). The highlight of the LRC summer is the preparation and implementation of the Summer Bridge Program (SBP). The UP Manila LRC is the only LRC with a Modified Bridging Program (SBP) due to its shortened duration of three weeks in contrast to the six weeks in other campuses. A tutorial maintenance phase was also introduced which stretched out to cover the succeeding semester. This was resorted to because of the housing expenses and difficulty of finding tutors.

SBP participants were selected from a list provided by the Office of Admissions. Of the 74 students invited to the program, 39 responded positively. An additional five students volunteered to participate, one of whom belongs to the Intarmed Program. In 1999, 75 incoming freshmen students were invited to participate in the SBP. Of the 75 students, 32 confirmed their participation.

Fifty-seven percent of UP Manila students have availed of LRC Services at one time or another since it started operations on 2 July 1998. Of these, 39% are freshmen, 22% sophomore, 17% juniors, and 22% seniors working on their class projects and thesis. A few-student volunteers assist the LRC.

NON-ACADEMIC STUDENT DEVELOPMENT

Complementing the academic support services for students are the non-academic programs, which include a sports and wellness program, provision of opportunities for social and cultural upliftment and leadership skills, and participation and involvement in volunteer activities of the Ugnayan ng Pahinungod, the student organizations, and the colleges/units.

Also, the past six years saw a cultural renaissance at UP Manila with the birth of various sociocultural groups (UP Manila Chorale, UP Manila Gandingan, UP Manila Rondalla, UP Manila Rock Band, UP Manila Folklorica, Sayaw Bathala, UP Manila Indayog, and UP Manila Debate Circle). The UP Manila Chorale is now a recognized UP performing group.

BASIC NEEDS

To improve delivery of basic services, UP Manila, through PGH, continued to provide free medical check-ups and consultations to students. From 1993 to 1999, an average of 4,000 students per year were given free dental and medical examinations prior to enrollment. In addition, a total of 7,912 students were given free consultation.

This six-year period saw an increase in infrastructure and facilities expansion which directly benefited the students. Buildings were constructed for the College of Pharmacy, College of Nursing, College of Dentistry, College of Arts and Sciences (Annex Building), School of Health Sciences in Leyte), College of Public Health Distance Education, while major renovations were done on the College of Medicine, CAS and other units. UP Manila administration offices directly servicing the students such as the Offices of the Registrar and Cash Divisions were renovated and expanded. Student facilities such as classrooms, the Multidisciplinary Laboratories, the Sports and Wellness Center, upgraded laboratories, student lounges; a bigger University Library with Internet access and IT programs such as the EMERALDS, OPAC, and others, were put up during the six year period.

Efforts continued to be exerted to improve water supply and canteen services, and to facilitate students' access to dormitories and food establishments. Funds were solicited for the construction of a Student Center which will house all student-related programs and activities such as the University Student Council, *UP Manila Collegian*, Department of Military Science and Tactics, and others. ■

RESEARCH AND PUBLICATIONS

■ IN THE PAST six years, 2,175 research projects were undertaken and 1,650 research projects completed.

Funding support for research increased almost 700% from P3 M in 1993 to P21 M in 1999. A substantial portion of the research expenditure is generated by the researchers themselves from external funders.

In 1993, UP Manila's very limited research budget was used principally to support the Institute of Ophthalmology, the Manila Studies Program, and a few research projects. Expenditure for the University Library was included as a research expense. The faculty was expected to look for their own research funds and make do with available research facilities. By 1998, 37 research projects were funded directly by research funds from the National Institutes of Health.

The vision of UP Manila's research program is "to support the national effort to improve the health of all Filipinos by enhancing its capability for health research and development." Three operational tracks were pursued to achieve this mission, namely, research environment development, research human resource development, and research support service development.

DEVELOPMENT OF A RESEARCH ENVIRONMENT

The centerpiece of the research environment development program is the National Institutes of Health (NIH) which was established by the Board of Regents at its 1094th meeting on 26 January 1996 and by RA 8503 which was signed into law on 13 February 1998. NIH embodies the commitment of the University to research as a coequal function to teaching and service. NIH will serve as the structural, conceptual and organizational embodiment of research in UP Manila.

As an organization, NIH will integrate and coordinate the research programs of the University. The NIH shall be composed of component institutes and research programs. A research program may be converted into an institute when (1) it has developed a critical mass of interested and committed

scholars, (2) produced a research-based literature, and (3) achieved recognition in the scientific and professional world.

The goal is to develop the organizational and managerial mechanism which will encourage and facilitate effective research endeavors. It will harness the talent and creative minds within and outside the University; it will deload researchers from tasks associated with funding and implementing research projects; and it will assure dissemination and utilization of research output for the benefit of the people.

NIH will complement the other research structural units within the University, namely, the University Research Council, the Office of Research Services, the College Research Committee and research facilities, and the National Graduate School for the Health Sciences.

The University Research Council (URC) was reactivated. It is composed of the Chancellor as Chair, the Assistants to the Chancellor, the College Research Committee Chairs, and the NIH Institute Directors/ Program Leaders. It recommends research policies and the research agenda for the University to the Chancellor. It has a Technical Review Committee, an Ethics Review Committee, and a Financial Review Committee. In addition, it also has a Research Human Resource Development Committee, Research Facilities Development Committee, and Research Management Committee.

The Office of Research Services (ORS) acts as the secretariat of the University Research Council and provides research management assistance to the researchers. It handles the processing of research project proposals submitted to NIH, assists in fund sourcing, assists researchers to comply with university and government rules and regulations, maintains a data bank on all ongoing and completed researches, and assists in the dissemination and utilization of research output. It also oversees the implementation of Executive Order No. 247—Prospecting of Biological and Genetic Resources. The ORS has published a research manual and continues to develop processes and procedures to streamline research management.

The College Research Coordinator serves as the link between NIH and the colleges. The College Research Committee is primarily concerned with research human resource databanking and development, research project proposal technical review, research project monitoring, and assistance in research output dissemination and utilization. Note that a faculty researcher may have personal projects, projects with an external agency, projects with the College, and/or projects with NIH.

NIH will provide the research support needs of the graduate programs of the National Graduate School for the Health Sciences. The University will encourage graduate students to select their thesis topic from within the NIH institutes and study group research agenda, thereby contributing more meaningfully to the solution to health problems.

Table 2-5 ■ Research Funding

Institute/Program	Source of funds	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99
Inst of Ophthalmology	General fund	1,550	1,845	2,565	3,210	3,167	5,728
	Revolving fund	147	110	54	13	85	84
	Others						
	Sub-total	1,697	1,955	2,619	3,223	3,252	5,812
UPM research fund	General fund	1,125	1,250	1,250	1,250	1,250	938
	Revolving fund						
	Others						
	Sub-total	1,125	1,250	1,250	1,250	1,250	938
Inst of Socio-biomedical Research	General fund	90	236	274	310	155	303
	Revolving fund	111	45	546	636	1,314	235
	Others						
	Sub-total	201	281	820	946	1,469	538
Inst of Biotechnology	General fund			5,000	5,000	5,000	3,750
	Revolving fund				82	137	147
	Others						
	Sub-total			5,000	5,082	5,137	3,897
National Institutes of Health	General fund					2,000	9,000
	Revolving fund					1,700	162
	Others					1,600	
	Sub-total					5,300	9,062
Manila Studies Program	General fund						750
	Revolving fund						
	Others						
	Sub-total						750
SUB-TOTAL		3,023	3,486	9,689	10,501	16,408	21,097
Equipment outlay							50,430
Capital outlay			15,095				2,578.30
TOTAL COE		3,023	18,581	9,689	10,501	16,408	74,105.30

RESEARCH HUMAN RESOURCE DEVELOPMENT

The research human resource development program focuses on research methodology and technology development. The University considers the faculty as its primary pool of researchers and, as such, various methods to enhance their research capability are used.

1. *Research methodology course.* This is a one-week formal training course whose output is an actual research project proposal. Funds are provided to implement the research project, assisted and supervised by the trainers.
2. *Research management course.* This is a short formal course designed to enable researchers to manage their project effectively and efficiently.
3. *Fellowship program.* The Japan Society for the Promotion of Science (JSPS) - DOST program provided our faculty with the opportunity to spend some time with Japanese scientists. It made possible joint research projects, gave the opportunity to learn new research technology, and provided an exposure to research as it is done in a foreign country. Some 150 of the staff availed of this opportunity in the following medical science fields:
4. *MS/PhD program.* The program encourages and provides the opportunity for

the faculty to obtain a master's or doctoral degree, whether here or abroad. The goal is that at least 75% of the faculty should have a master's or doctoral degree.

A. Disease Process/Vulnerable Group

1. Institute of Ophthalmology
2. Institute of Human Genetics
3. Institute of Child Health and Development
4. Aging and Degenerative/ Metabolic Diseases
5. Human Reproduction
6. Infectious Diseases
7. Immunological Diseases
8. Mental health
9. Prevention and rehabilitation of disabilities
10. Occupational health
11. Oncology
12. Oral health

B. Technology/Professional Expertise-based

1. Institute of Biotechnology
2. Institute of Clinical Epidemiology
3. Institute of Pharmaceutical Sciences
4. Institute of Health Policy and Development Studies
5. Center for Disease Control
6. Complementary and Traditional Medicine
7. Computer Research and Information Technology for Health
8. Medical Bioengineering
9. Nursing Development
10. Social and Humanistic Studies in Health
11. Community Health Development
12. Regional and International Health

5. *Co-investigator in research projects.* Junior faculty members are encouraged to work as co-investigator in research projects. In the process, they are exposed to research work and they acquire a research track record which will better qualify them to seek external sources of funds.

Recently, UP Manila generated seven research faculty items. A research faculty is expected to do research and teach six units per semester. At present, the University is experimenting in utilizing these items in a variety of ways, such as (1) taking into the system young and highly qualified individuals who may otherwise be lost because of the absence of regular faculty items; (2) using an item as a loan item to a College that would like to give a research credit load to its faculty but could not because of teaching load requirement deficiency; and (3) utilizing an item as a loan item so that a faculty member can devote himself fully to research.

Finally, the university is in the process of developing a research human resource data bank. The data bank proposes to capture the individual's various expertise gained from formal and informal training, experience, and special interest.

RESEARCH SUPPORT SERVICES DEVELOPMENT

A number of research laboratories have been established and there are plans for the activation of more in the future. The laboratories currently functioning are Molecular Biology Laboratory, Immunology Laboratory, Newborn Screening Laboratory, Cytogenetic Laboratory, Speech Laboratory, Cybernook, Animal House and Insectarium.

Soon to be upgraded are the Molecular Genetic Laboratory, the Nutrition/Chemistry Laboratory, and the Bacteriology Laboratory.

The supportive roles of the URC Committees, College Research Committees, Office of Research Services and Institute of Socio-Biomedical Research have been previously discussed. Currently under development is the establishment of an Intellectual Property Rights Office (IPRO). This Office will assist researchers in the patenting and copy-righting of their creative work in the following areas:

- Anatomy
- Anesthesiology
- Biochemistry/Molecular Biology
- Biology
- Cardiovascular Anesthesia
- Chemistry
- Community Medicine
- Food and Nutrition
- Gastroenterology
- Health Research Management
- Hematology
- Hepatology
- Immunology
- Infectious Diseases
- Internal Medicine
- Medical Microbiology
- Neurology/Psychiatry
- Obstetrics and Gynecology
- Oncology
- Ophthalmology
- Otorrhinolaryngology
- Parasitology
- Pathology
- Pediatrics
- Pharmacy
- Pharmacology
- Physiology
- Population Study
- Preventive and Social Medicine
- Surgery
- Tropical Medicine
- Surgery
- Tropical Medicine

RESEARCH DISSEMINATION AND UTILIZATION

Researchers are encouraged to publish and/or present their research output in various local and foreign publications and/or scientific fora.

In addition, UP Manila organized the yearly Inventors-Innovators Fair and the Research Poster Contest in 1994. The winners in this activity were included in the Annual DOST S & T Fair.

In 1995, the maiden issue of the quarterly *UP Manila Journal* was published. The journal, together with the *Acta Medica* of the College of Medicine and College Public Health, is intended to provide researchers a medium for the publication of their research output. We look forward to these publications being included among the indexed peer-reviewed journals.

The health policy and strategic planning group has held several round table discussions (RTD), as follows:

1. Privatization of Health Services (19 September 1996)
2. Measles Immunization: Tigdas, Paano Makaliligtas (21 February 1997)
3. Patakaran para sa Tubig at Kalusugan (30 October 1997)
4. Vital Link: Consultation Conference on Health and Environment Policy Impact in the Philippines (15 April 1998). Jointly sponsored by the Department of Health
5. Stimulating Health Care Reform from the 90s to the next Millenium: The Role of the National Health Insurance Law and Recent Policy Changes (22 April 1998). Jointly sponsored by the Social Health Insurance Networking and Empowerment
6. Tungo sa Makabuluhang Paggamit ng Gamot sa Komunidad (22 July 1998)
7. Bioethical, Environmental and Technical Concerns in Animal Experimentation (29 July 1998). Jointly sponsored by the National Academy of Science and Technology
8. The Effect of Devolution on Health (30 September 1998)
9. Stimulating Health Care Reform from the 90s to the Next Millenium: The Role of Formal Health Providers in Philippine Health Care Reform (4 November 1998)
10. Consultative Meeting on the Proposed Implementing Rules and Regulations of the Animal Welfare Act (9 December 1998)
11. Health Human Resource Development: The Nursing Dilemma (24 February 1999)
12. Rubella Immunization: Should the Government Spend (26 March 1999) Jointly sponsored by the Department of Health
13. Consultative Workshop in Nutrition (21 April 1999)

While the impact of these RTDs cannot be determined this early, their usefulness in defining clear health policy directions has been demonstrated. For instance, the discussion on measles paved the way for strongly recommending to DOH

to reconsider its immunization policies in the light of its failure to prevent annual outbreaks.

It was due to this recommendation, according to UNICEF, which led to a serious review of immunization policies in 1997, and consequently to some changes in current immunization practices. As a result, there was no major measles outbreak in the later months of 1997 and early 1998.

The RTD on PATAK sought to revise certain sections of the proposed Water Resource Act of the Philippines to incorporate the need to include health aspects of water provision and thus, ensure public health. Drafts of these provisions were drawn up and submitted to the Department of Environmental and Natural Resources. In terms of health policy development capability building in UP Manila, the RTDs enhanced the strategic networking and collaboration that has bonded together within the NIH, the component units of UP and key external health policy stakeholders.

UP Manila, through NIH and HPSPP, has emerged as a major player in the health policy development arena as evidenced by the increase in commissioned policy analysis and RTD organization work by partner institutions such as DOH, SHINE-GTZ, PhilHealth, National Academy of Science and Technology, and UNICEF. Being undertaken are current studies on health human resource development in various fields of health which started with nursing human resource.

RESEARCH BREAKTHROUGHS

A. Inventors-Innovators Fair Winners

Every year, the University of the Philippines Manila pays tribute to its inventors and innovators for their products and equipment that contribute, in one way or another, to the advancement of science and to the improvement of the people's quality of life.

1999

The first prize, the Vial Formazan Method, is an alternative screening test for Glucose-6-Phosphate Dehydrogenase (G6PD) Deficiency, a congenital defect. This method has advantages over the fluorescence spot test, the standard method being recommended by the International Committee for Standardization and Haematology. The formazan method yields faster results than the fluorescence spot test and it does not require a UV lamp for viewing the results as needed in the spot test. Also, unlike the agar-formazan method, being adopted by the National Institutes of Health in neonatal screening for G6PD deficiency, which results could be examined only after a 24-hour incubation, the results in the new method could be assessed after five to ten minutes of incubation. Moreover, the method is applicable in the field setting. The test was developed by medical students (p. 225).

Innovated by Ellen Lee, Brian Bicomong, et al., the cost-effective metabolic cage got the second prize. Metabolic cages are specialized animal receptacles used for separating solid from liquid wastes. These cages are used to collect urine samples for analysis. However, such cages are expensive. The commercially available Nalgene metabolic animal cage, which is capable of housing one rat, costs P20,250. Its stainless steel stand costs 4,624. Hence, the whole unit costs P24,878. Furthermore, studies requiring such units usually need multiple sample replicates, resulting in the large amount of money required for cages alone. The cost-effective metabolic cage is far cheaper than the commercially available cage but is also effective and can keep three rats at a time. Made of a used five-gallon plastic container, chicken wire, plastic bag, elastic bands, and other cheap materials, the total cost of the cage is only P300, less than one-eightieth of the cost of the commercially available cage. The money used to buy one Nalgene cage that holds only one rat may thus be used to make 80 cost-effective metabolic cages which are enough to house up to 240 rats.

The spring vacuum drain, developed by Drs. Mariano Caparas, Filipina Cevallos, and Regie Lyn Sanots, is an inexpensive alternative closed suction drainage system used in head and neck surgeries. The innovation costs only P350, which is much lower than the commercially available drains such as the Hemovac (P800) and the Jackson-Pratt (P720). The spring vacuum drain has been successfully used in at least 50 surgeries for the past two years.

Physicians, nurses, and medical students as well as field health workers like paramedics, emergency medical technicians, and even firefighters will find the quick-access medical pouch very helpful in doing their tasks in the emergency department or out in the field. The pouch, created by Dr. Jun Teodoro, is made of sturdy nylon cloth with velco straps. It has pockets and holders of different sizes to accommodate basic medical equipment such as a small flashlight or penlight, ophthalmoscope, otoscope, and basic surgical instruments like scissors, forceps, pick-ups, and scalpel holder. It has pockets to hold a Swiss knife and other small items. It is equipped with a back flap with velcro strip for attachment to the user's belt. Also, the bag does not easily acquire stain and is easy to clean.

1998

The first prize winner, a modified closed-circuit TV (CCTV) unit for low vision patients or visually impaired people consists of locally manufactured mounting device made of wood, metal, and plastic, on which any commercially available videocamera can be mounted to scan a wide variety of reading materials and subsequently projected onto any household television set. It was designed by Dr. Richard Kho. CCTVs are preferred low vision aids for low vision patients for them to regain functional vision.

The second winner is a modified micro particle agglutination for screening antibodies to hepatitis C virus (anti-HCV) using a reduced quantity of testing reagents, 1/5 of the standard amount (5 vs. 25 ul). The modified agglutination has a relatively high sensitivity and specificity and yields a faster result than the ELISA (30



The low-cost modified viewing device for low vision patients invented by Dr. Richard Kho which won first prize at the 1998 UPM Inventors Fair.

minutes for the new method and 120 minutes for ELISA). This method was developed by Drs. Ernesto Domingo, Eduardo Lim, and Mary Ann Lansang.

Developed by Drs. Teodoro Herbosa, Irene Regudo-Punzalan, and Augusto Teodoro, Jr., the corrugated cardboard-based cervical immobilization device is a cheap innovation appropriate for the stabilization of the neck in cases of trauma to the neck and suspected cervical and spinal cord injury to prevent their further injury and complications.

The fourth prize winner, a study on the larvicidal activity of *Persea americana* Miller, commonly called avocado, was made by Drs. Mildred Oliveros and Lilian de las Llagas. Crude extracts obtained from the dried mature leaves of avocado were tested. Four dosage forms were formulated: alcoholic solution, pellet, powder, and gel. Of these, the powder is preferred, effecting 100 percent mortality of larvae within 24 hours. It also had a residual effect of 100 percent over a period of 30 days. A 10-gram bottle of avocado powder costs only P15.00. Used in treating water in plant vases, jars, garden fountains, and stagnant waters in the surroundings, the Avocado powder could fight dengue and control or eradicate *Aedes aegypti*.

1997

The "Unmatched Bone Transplants in Limb Saving Surgeries" of Dr. Edward Wang was an answer to the lack of donated bones needed for bone transplantation in many orthopedic cases. Dr. Wang has modified available bones to fit into the skeletal defects of patients. The donated left arm bone can be transplanted into the right arm. The leg bone can be reshaped to fit into the thigh. And lower limb bones have been similarly remodeled to replace upper limb defects.

Dr. Edgar Michael T. Eufemio's innovation of the ring fixator (used by Filipino orthopedists in the treatment of bone gaps and malangulated limbs) called "A Bio-medical Analysis of a Fiberglass Reinforced Plastic (FRP) Ring Fixator," offers a lighter, cheaper, and more radiolucent alternative to the traditional Ilizarov fixator.

A device to warm refrigerated banked blood and prevent hypothermia in trauma patients was produced by Drs. Orlando Ocampo and Joel Macalino. Called the "Simplified Blood-warming Device," it was an effective, yet inexpensive, apparatus which cost less than P500 in contrast to the imported ones which cost approximately P20,000 and up.

The "Modified Parapodium" produced by Ronald dela Cruz is an orthotic device to facilitate the standing of children and adults with lower limb paralysis. The original parapodium, which can be bought only in the US and in other European countries, is made of imported aluminum materials and costs P40,000. The modified version, made of locally available materials like orthoglass, iron, aluminum bar, wood, and leather only costs P 3,000.

1996

Dr. Rafael Bundoc came up with the new process to replicate cadaveric human bones for teaching human anatomy, for biomechanical experimentations, and in cone vacuum-treated moulding" was an answer to the lack of cadaveric bones for the medical field to study.

A clinically acceptable alternative to the imported and expensive life support equipment used by critically-ill patients was developed by the Pulmonary Section of the Philippine General Hospital. Named the "Pulmo 2," the low-cost volume-cycled ventilator has all the usual features of the imported kind but is much cheaper. The imported model costs P200,000 while Pulmo 2 is only P60,000. This device was designed by Drs. Simon Pleta, Feriza Luna, George Reyes, and Abundio Balgos.

The Lawn Tennis Stroke Trainer AN 52491, produced by Prof. Marcelino Panganiban, is a device which can improve a player's overall competence by honing his/her different tennis strokes through simulation of an actual game situation. The trainer is very appropriate especially to those who have limited time, court space, and even money. The device has a practice tennis ball attached to a spring assembly which is mounted on a base. The base has an appropriate weight to keep the entire ball assembly in its upright position. The ball assembly is detachable and can be replaced with those of different heights depending on the desired strokes the player would like to practice. When the player hits the lawn tennis trainer, the spring assembly allows the movement of the ball assembly to swing from vertical position to horizontal, then bounce back to an upright position.

1995

The Biomechanical Testing of a New Mini External Fractures of the Hand, by Dr. Norberto Meriales, is an external fixator for the fractured hand which was designed and created out of locally available, inexpensive, and autoclavable materials. The whole contraction is light, adjustable in all planes, rigid enough to permit early active motion of the hand, and allows further surgical procedures on the hand.

Second placer was Dr. George Reyes's cost-effective infant ventilator (time-cycled and pressure limited) compatible for the provinces and rural areas.

Dr. Camilo C. Roa, Jr.'s Pulmo I Ventilator functions as a mechanical ambubagger. It is inexpensive and can perform extended ventilation with controlled rates, preset volume, regulated inspiratory flow, oxygen supplementation, and basic alarms. A manual override mechanism allows the unit to be operated during power outages.

Cited as honorable mention were Josephine Manansala and Deogracias Reyes, medical students, for their group's research on "The Protective and Healing Capabilities of Green Unripe Plantain Bananas Against Indomethacin-induced Gastric Ulcers in Rats," and Dr. Mildred Oliveros for her "Zingiment and Zingisol." Manansala, et al.'s experimental study investigated the protective and healing capacities of green

Table 2-6 ■ *Inventors-Innovators Fair and Research Poster Contest Winners*

Year	Inventors-Innovators Fair	Research Poster Contest
1994	<p>Number of exhibitors = 12</p> <p>First Prize Dr Rafael Bundoc Locally Manufactured Continuous Passive Motion Machine</p> <p>Second Prize Prof Ileana Cruz and Lilian delas Llagas Efficacy of Some Philippine Botanical Extract Against Medically Important Mosquitoes</p> <p>Third Prize Dr. Leticia Barbara Gutierrez Formulation of Akapulco Lotion</p> <p>Consolation Prizes Prof Imelda Peña An Antimicrobial Topical Preparation from the Leaves of <i>Prosopis vitaliana</i> Nave</p> <p>Dr Angellita Reyes and Dr Grace Fe Yu Isolation, Purification and Characterization of Urease from Pigeon Pee (<i>Cajanus cajan</i>)</p>	
1995	<p>Number of exhibitors = 10</p> <p>First Prize Dr Norberto Meriales Biomechanical Testing of a New Mini External Fixator Fractures of the Hand</p> <p>Second Prize Dr George D. Reyes A Cost-effective Infant Ventilator Compatible for the Provinces and Rural Areas</p> <p>Third Prize Dr Camilo C. Roa, Jr The Pulmo I Ventilator</p> <p>Honorable Mention Ms Josephine Manansala and Mr Deogracias Reyes The Protective and Healing Capabilities of Green Unripe Plantain Banana against Indomethacin-induced Gastric Ulcer in Rats</p> <p>Dr Mildred B. Oliveros Zingiment and Zingisol</p>	
1996	<p>Number of exhibitors = 8</p> <p>First Prize Dr Rafael Bundoc Locally Manufactured Human Bone Replica</p> <p>Second Prize Dr Simeon Pleta, Dr Feriza Luna, Dr George Reyes, Dr Abundio Bulgos A Cheaper Life Support Alternative</p> <p>Third Prize Prof Marcelino Panganiban Tennis Stroke Trainer</p> <p>Consolation Prizes Dr Salvador Villanueva, Dr. Mario Festin, Ricardo Manalastas, Jr Early Repair of Episiotomy Dehiscences</p> <p>Dr Jose Anthony Jocson Honey in the Management of Wounds with Exposed Bone</p>	<p>First Prize Impact of NPCIS on Poison Control and Management</p> <p>Second Prize Omega-3 Fatty Acid Therapy in Filipino Children with Chronic Glomerular Disease</p> <p>Third Prize Home-based Mother's Record as a Teaching Tool</p>

Year	Inventors-Innovators Fair	Research Poster Contest
1997	Number of exhibitors = 11	PROFESSIONAL/FACULTY CATEGORY Number of exhibitors = 10
	First Prize Dr Edward HM Wang Unmatched Bone Transplantation in Limb-saving Surgeries	First Prize Dr Corazon Ngelangel Cost Effectiveness of Breast Exam as a Cancer Screening Strategy in the Philis.
	Second Prize Dr Edgard MT Eufemio A Biomechanical Analysis of a Fiberglass Reinforced Plastic Ring Fixator	Second Prize Dr Nina Barzaga Genotype analysis of HIV isolates from risk groups in Metro Manila
	Third Prize Dr Orlando O. Ocampo A Simplified Blood Warming Device	Third Prize Dr Corazon Ngelangnel HPV Types Causing Cervical Vancer in the Philippines. A Case Control Study
1998	Number of exhibitors = 8	STUDENT CATEGORY Number of exhibitors = 9
	First Prize Dr Richard C. Kho A Modified Closed-circuit TV Unit for Low Vision Patients	First Prize Dr Eric Arcilla Polivindylne Plant as an Alternative Dressing for Skin Raft Donor Sites
	Second Prize Dr Eduardo C. Lim, Ernesto Domingo, Ms Lolita Cavinta Modified Micro Particle Agglutination Method for Screening Antibodies to hepatitis C virus using 5- μ l reagents: Reduction of Cost and Time with High Sensitivity and Specificity	Second Prize Dr. Eric Arcilla The Filipino Hand as a Percentage of Body Surface area. Defining a gold Standard with the Aid of Medical Informatics
	Third Prize Dr Teodoro Herbosa, Dr Irene Punzalan, Augusto Teodoro, Jr A Modified Cervical Immobilization for Suspected Cervical Spine Injuries in the Prehospital Setting	Third Prize Dr Ma. Isabel Trapaga Effect of Enteral Administration of Soybean Emulsion in Malnourished Rats
1999	Number of exhibitors = 8	APPLIED CATEGORY
	First Prize Marlon Torrento, Mark Anthony Sandoval, Lex Badayos, Debbierey Bongar, Manny Roehl Allan Bumanglag, Christopher John Co, Raya Constantino, Simonette Cordero, Dino Oliver Foronda, Ernesto Golez III, Lee Martin Jaranilla, Kristine Lanuza, Mariano Librojo, Lee James Maratas, Jose Martinelli Nadal, Ma. Princesa Obieta, Lady Christine Ong Sio, Almira Onia, Leopoldo Jose Ma. Picazo, Benjamin Angelo Quiamco, Primitivo Rimando, Lourelei Sabio, Roy Eugene Tabigoon, Tersita Tolentino, Prof Tersita De Guzman (Research Adviser) The 'Vial-Formazan Method: A Rapid Colorimetric Screening Test for Glucose-6-Phosphate Dehydrogenase Deficiency	First Prize Nelia Maramba, Erle Castillo, Allan Dionisio, Carissa Dioquino, Kenneth Hartigan-Go, Irma Makalinao, Lynn Panganiban, Joselito Pascual, Lorenzo So, Lorenda Suplido, Jeanne Castañeda, Aileen Manglicmot, Antonio Osuna Assessment of the Impact of the NPCIS on Poison Control and Management
	Second Prize Ellen Lee, Brian Bicomong The Cost-effective Metabolic Cage	Second Prize Agnes Alarilla, Carmeelo Alfiler, Joel Elises, Marvin Callanta Omega Three Fatty Acid Therapy in Filipino Children with Chronic Glomerular Diseases
	Third Prize Dr Mariano Caparas, Dr Filipina Cevallos, Dr Regie Lyn Santos Spring Vacuum Drain: A Closed Suction Drainage System for Head and Neck Surgeries	Third Prize Amor Balletero Home-based Mother's Record: A Tool for Teaching Mothers about High-risk Pregnancy
1999	Number of exhibitors = 8	BASIC CATEGORY
	First Prize Dr Augusto Teodoro, Dr April Llaneta Quick-Access Medical Pouch	First Prize Marlon Torrento, Mark Anthony Sandoval, Lex Badayos, Debbierey Bongar, Manny Roehl Allan Bumanglag, Christopher John Co, Raya Constantino, Simonette Cordero, Dino Oliver Foronda, Ernesto Golez III, Lee Martin Jaranilla, Kristine Lanuza, Mariano Librojo, Lee James Maratas, Jose Martinelli Nadal, Ma. Princesa Obieta, Lady Christine Ong Sio, Almira Onia, Leopoldo Jose Ma. Picazo, Benjamin Angelo Quiamco, Primitivo Rimando, Lourelei Sabio, Roy Eugene Tabigoon, Tersita Tolentino, Prof Tersita De Guzman (Research Adviser) Development of a Rapid, Colorimetric Screening Test for Glucose-6-Phosphate Dehydrogenase Deficiency: A Preliminary Study
	Second Prize Ellen Lee, Brian Bicomong The Cost-effective Metabolic Cage	
	Third Prize Dr Mariano Caparas, Dr Filipina Cevallos, Dr Regie Lyn Santos Spring Vacuum Drain: A Closed Suction Drainage System for Head and Neck Surgeries	

unripe plantain bananas and of misoprostol, a PGE analog, against indomethacin-induced gastric ulcers in female Sprague-Dawley rats. Oliveros's winning entry consisted of two pharmaceutical preparations which have both antibacterial and antifungal activities. Both products have been found to be more active against a number of pathogenic bacteria and fungi than some antibiotics and antifungal agents distributed commercially.

1994

The study on "Evaluation of the Efficacy of a Locally Manufactured Continuous Passive Motion Machine in the Management of the Traumatic Post Operative Knee Injuries, by Dr. Rafael Bundoc won first prize at the first UP Manila Inventors-Innovators Fair held last June 29. The machine was made from locally available materials using basic engineering design and was proven to be effective in rehabilitation knee injuries.

The second prize went to Dr. Lilian de las Llagas and Prof. Ileana Cruz for their study "Efficacy of Some Philippine Botanical Extracts Against Medically Important Mosquitoes." Of several Philippine medicinal plants tested against malaria mosquito vectors, the researchers found three to be most effective—two repellants (atis and kakawati) and one larvicide (Piper nigrum).

Dr. Leticia Barbara Gutierrez bagged the third prize for her study on "Formulation of Akapulco Lotion" which was part of a bigger study on "Dosage Formulation of Medicinal Plant Constituents." The study involved the formulation of Akapulco lotion from the decoction of Akapulco leaves, Cassia Alata, L. The decoction was concentrated and manufactured with suspending agent, humectant, preservative, and solvent to make a lotion.

Winning consolation prizes were Prof. Imelda Peña's study "An Antimicrobial Topical Preparation from the Leaves of Prosopis Vidaliana Naves (Family Leguminosae), and Dr. Angelita Reyes and Dr. Gracia Fe Yu's "Isolation, Purification and Characterization of Urease from Pigeon Pea (Cajanus Cajan).

B. National Institutes of Health

Biotechnology research has been strengthened with two of the five initial projects extended for another year while four ongoing projects are in the second year of implementation.

These are "Development of Thyroid Stimulating Hormone (TSH) Assay for Screening Congenital Hypothyroidism," "Development of DOT-ELISA utilizing the 30Kda antigen of Mycobacterium tuberculosis as a diagnostic kit," "Laboratory and field Studies on the Biological Control Potential of Culinomyces clavisporus, Bacillus thuringensis and Bacillus sphaericus." Another project "Development of Monoclonal Antibodies Against Serum Transferin for Use in the Immunoassay Detection of Human Serum Transferin" was extended until December 1998.

Four new projects started this 1999, namely, "Field Evaluation of Formulated Avocado Extract Against Mosquito Larvae in the Philippines." "Availability of *Bacillus subtilis* Spores for Use in Population Screening for Phenylketonuria," Development of Serotyping Reagents for the Detection of Cholera Species," and "the Immunomodulating Effect of the Crude Extracts from *Momordica charantia* and *Tinospora crispa*." The second research has already produced sufficient spores now being used for newborn screening for phenylketonuria and the last two projects have the potential to generate products which are expected to be more relevant and applicable to our setting.

Biotechnology researches were slowly but steadily pushing efforts to develop and improve vaccines for the leading causes of infectious diseases and simple, rapid, highly sensitive diagnostic tests applicable to field conditions.

The completed project on "Genetic Characterization of Human Immunodeficiency Virus-1 Isolates in Metro Manila" determined the genotypes of some 32 HIV-1 isolates from commercial sex workers and other high risk groups in Metro Manila. This work has implications on antiviral therapy and vaccine development. Another project, the "Development of Anti-Hepatitis C Virus Agglutination Assay," came up with a modification of the procedure, thereby effectively reducing the volume of reagents required for the assay, which has great implications in reducing the cost of screening especially blood donations.

Eye researches also got a big boost with the conduct of the study on "Eye Injuries Among Workers of Selected High-Risk Establishments in the Philippines under a P2-million grant from the DOH. The project is a component of UP Manila's National Eye Injury Research Program which consolidates all current efforts on eye injury as basis for the formulation of appropriate preventive measures and treatment strategies.

In addition, the National Eye Injury Registry, the Uveitis National Survey, and the IO Tumor Registry were started to gather and compile data. A number of operation researches and studies on certain aspects of eye health care system is also being undertaken.

Data generated by IO studies were used as basis by DOH in the formulation of the national Blindness Prevention Program.

The Complementary and Traditional Medicine Program started the documentation of the health and healing practices of the Bugkalot people in Quirino and Nueva Vizcaya provinces. Financial assistance was also received from the UPMASA (Delaware Chapter through Dr. Jose Pamintuan) for the inventory of Philippine medicinal plants. Almost completed are the documentation of the Batak, Tagbanua, and Palaan peoples of Palawan with financial support from the Department of Health Traditional Medicine Unit.

The Rational Drug Use Study Group was invited to present two proposals in Yogyakarta, Indonesia. Prof. Cristina Torres, Dr. Noel Juban, Aldrin Santiago, and Rainier Galang developed two research proposals exploring the role of municipal mayors and drug store clerks in the rational use of medicines. The RDU Study Group also held

several seminars for community health workers and midwives on the rational use of medicines.

C. College of Medicine-PGH

A cancer study aimed to determine the incidence, prevalence, and magnitude of cancer in a hospital and community setting as basis for establishing a hospital-based and population-based cancer registries, assess the effectiveness of preventive measures, and plan a program for cancer services in certain provinces. The results of the study led to the development and implementation of two population-based cancer registries in the Philippines; formulation of DOH Cancer Control Program; and the establishment of scientifically valid and locally relevant therapeutic approaches to the management of specific cancer sites.

To reduce child mortality and morbidity from acute diarrhea, the Diarrheal Disease Research Unit of CM-PGH embarked on several researches to determine the etiology, prevention and management of acute diarrhea among Filipino children. The findings of the studies were used as basis in the development of an improved oral rehydration solution and the formulation of non-oral rehydration therapy and nutrition interventions in acute diarrhea.

The studies on disaster management assessed the significance of disasters in the Philippines and its impact on the victims and to the entire community. Findings were used as basis by DOH in the formulation of the National Mental Health Program. These researches have produced significant breakthroughs which have greatly influenced the formulation and implementation of national health policies and programs.

The overall impact of the hepatitis research program included the provision of bases for DOH in the development of the policy on Hepatitis B immunization,

Other research milestones were the launching of the Child Protection Unit (CPU) and the Touch and Behavioral Development Program under the NIH which are simultaneously service-oriented. Spearheaded by PGH and the College of Medicine, CPU is a collaborative program which aims to provide the highest standards of clinical care for abused children through research and training programs. The TBDP aims to boost the conduct of researches on maternal and infant health care specially on the effects of touch on the health status of children and mothers.

D. College of Public Health

Most of the researches of the College of Public Health were evaluation researches.

A study on eye injuries among workers of select high-risk establishments in the Philippines is one of the major researches being conducted by CPH. Other ongoing studies are on persistent health problems such as HIV/AIDS, leprosy, malaria, tuberculosis, hepatitis, dengue, and paragonimiasis. Several evaluation studies of the government's existing programs are being done on devolution, maternal and child health project, Culion Leprosy Control and Rehabilitation Program, HIV/

AIDS Control Program, and nutrition program. An evaluation of the college's off-campus Master of Public Health program, which was offered in 1996 is being done. More researches on health manpower and health policy were started.

Its researches on lymphatic filariasis is being used by the Department of Health for the development of epidemiological and diagnostic tools for the said disease.

The research on the biocontrol of mosquito vectors has come up with a natural mosquito control measure.

The study on preventive fogging as a dengue vector control has been adopted by DOH and is now being used by six major cities and 11 municipalities of the National Capital Region and will be used by other local government units in controlling dengue.

The Malaria Control Service makes use of the studies on malaria for defining the epidemiology of malaria in the Philippines while DOH is interested in these studies for a sustainable malaria control program.

The clinical epidemiology of pulmonary paragonimiasis served as a baseline data for the formulation of the paragonimiasis control program needed in endemic areas in the country especially in Davao.

Information generated by the schistosomiasis research are being used by DOH and WHO in the formulation of a mass treatment program for schistosomiasis control.

DOH is employing the researches on hepatitis for policy formulation for its vaccination program especially in dosaging Hepatitis C vaccine.

All researches of the CPH Department of Health Promotion and Education are being used as intervention tool in the control of public health diseases specifically the studies on AIDS and leprosy.

Researches on dental public health are being utilized by DOH for its preventive dentistry program while still other researches are used for policy formulation such as studies on leprosy and health insurance.

Studies on nutrition focus on evaluation of community-based management of nutrition programs which are conducted in collaboration with DOH and on assessment of the knowledge, attitudes and skills of health workers at the regional, provincial and municipal levels as basis for the implementation and restructuring of the government's nutrition programs as well as in the revision of educational materials on nutrition.

In collaboration with CARE Philippines, CPH also conducted an evaluation study of the food security and family planning programs of CARE to institute more improvements. Through the Barangay Integrated Development Approach for Nutritional Improvement (BIDANI), CPH assessed the nutritional status of residents in four barangays in Metro Manila and identified other health problems and appropriate solutions through the health workers in the area which served as basis for NGOs to implement corresponding projects in the barangays such as supplemental feeding and mother's classes.

OTHER SIGNIFICANT RESEARCHES AND THEIR IMPACTS

The Manila Studies Program of the College of Arts and Sciences is a special program focused on the study of the heritage of Manila and the problems associated with urbanization. Originally focusing on researches concerning the City of Manila, the Program has expanded its scope to cover issues and concerns in Metro Manila and other urban centers within the Philippines and around the Asia-Pacific Region. Its program focus now include urban development, ecological waste management, history, culture and arts, women's studies, and policy studies. The accomplishments of MSP from 1993 to present were on research agenda setting, research linkages, research capability building, resource generation, publications of researches, and conduct of varied researches.

The College of Nursing (CN) has undertaken studies on the knowledge on AIDS, quality of life, compliance to medical regimen, and health-seeking behaviors. Several studies have been done on the needs of particular/ population groups like the elderly, women, children, cultural minority groups, and overseas Filipino women workers.

As a leader in nursing, CN has also done a number of studies on health services management. Majority of the studies were on evaluation of services both in the hospital and in the community; impact evaluation of health projects; and program development and evaluation. Studies have also been done on the social and economic dimensions of health and illness particularly on social access indicators, social and cultural factors in the prevention and control of selected costly diseases, costing of nursing services, family coping with a member who has mental illness and correlates of infant and child mortality.

The faculty of the College of Pharmacy has undertaken various researches on the design of drug delivery systems, bioactive components of fruits as insecticides and antimalarials, and biological studies on natural products like Kakauating Ligaw and Mansanitas.

A research-intensive unit, the College of Public Health has conducted research focusing not only on biomedical, sociocultural, economic, and behavioral aspects of health problems but also methods on health care delivery, development of models and procedures in the mangement of health services, information, systems, and disease control and prevention.

The researches done by the College of Allied Medical Professions and the College of Dentistry have been geared towards development of teaching materials.

The Institute of Ophthalmology which institutionalized UP Manilas's commitment to research in ophthalmology, has continued its role as the center of eye research in the country and its relevance in the formulation of the Department of Health's Prevention of Blindness Program. Its researches cover various aspects of the causes of ocular morbidities and blindness in the country which include characterization, prevention, diagnosis, treatment, epidemiology and statistics, basic studies and certain aspects of the eye health care system.

The National Teacher Training Center for the Health Professions undertook a nationwide study on "The Attitudes and Values of Filipino Medical Teachers Toward Teaching."

Our parameters for considering the national impact of every research output are: (1) when it becomes part of the universal pool of knowledge thereby cited by other researchers in the world; (2) when it becomes input for locally produced syllabi and teaching materials; (3) when it becomes a basis for evidence-based good clinical practice by the health professions; (4) when it is commercialized thereby reducing the cost of health care; and/or (5) when it gets used as basis for policy formulation and decision-making.

- The UP Manila Library has been producing the *Philippine Index Medicus*, a collection of the research output by Filipino published in local and foreign journals from 1917-1995 in seven volumes. The latest volume is planned to be converted to electronic media and made accessible via the Internet.
- Research output are being utilized as input to local textbooks and monographs with a Filipino character.
- UP Manila's produced textbooks and instructional manuals are being used by other academic institutions as standard text or reference materials.
- Evidence-based researches are used by health professional groups as materials for the formulation of good clinical practice guidelines.
- Five herbal medicinal formulations are already being commercialized, namely: lagundi for cough and asthma, yerba buena for pain, sambong for mild hypertension, tsaang gubat for colic, and akapulco for tinea infection.
- Diagnostic kits for hepatitis-B and hepatitis-C have been developed.
- Several research-based program recommendations have been adopted by the Department of Health, namely, oral rehydration for diarrhea, hepatitis-B vaccination, and blindness prevention program.
- Legislative and policy formulation initiatives are beginning to be recognized by decision-makers, such as the following:
 1. Modification in the measles immunization schedule
 2. Inclusion of the health aspect and the sanitary inspector in the Water Resource Act of the Philippines
 3. Inclusion of the health aspect in environmental policies
 4. Proposed revisions in the Philippine Health Insurance Corporation implementing rules and regulations
 5. Recommendations to enhance the implementation of the National Drug Policy
 6. The need for strategic planning for nursing health human resource development
 7. Inclusion of rubella in the immunization program

EXTENSION SERVICES AND PAHINUNGÓD

COMMUNITY-BASED PROGRAMS

To enable UP Manila students to have a better grasp and deeper understanding of problems and living conditions in the communities, and to develop and inculcate in them the value of serving others, the various colleges implement community-based programs which are an integral part of their respective curricula. These programs are constantly reviewed and strengthened to make them more responsive to the needs and conditions of the communities where they are implemented.

Examples of such programs which continue to exert a direct impact on the lives and health status of the communities are the Community-based Rehabilitation (CBR) program of the College of Allied Medical Professions in Montalban, Rizal; the Community Health Development Project (CHDP) of the College of Public Health in Cavite and in Pandacan, Manila; the community-based program of the College of Medicine in Laurel, Batangas and of the College of Nursing in Pila, Laguna; the Botika sa Barangay project of the College of Pharmacy; the community dental outreach project of the College of Dentistry; and the Field School Program of the College of Arts and Sciences.

A bronze awardee of the DOH Health and Management Information System (HAMIS), the CBR program stands as one of the landmark community-based programs of UP Manila in bringing health services to the Filipino with disabilities and in the prevention and rehabilitation of disabilities. For more than eight years now, the CBR program has been proving that rehabilitation services need not be confined to big hospitals nor be dependent on professional therapists because under the program, family members and the community workers are actively involved in rehabilitating people with disabilities (PWD). In effect, CBR's primary goal is the empowerment of PWDs together with the family and the community.

A similar improvement in the health status of the residents of six towns of Cavite and in Pandacan, Manila brought about by an increased awareness of basic health practices and public health concepts was generated by the CHDP which has been going on for many years now. Funded by the German Agency for Technical Cooperation (GTZ), the project aims to enable public health students to test the application of theories to actual field situations, and at the same time, improve delivery of health services to these communities. The project was able to train all provincial health

staff in Naic, Ternate, Maragondon, Magallanes, Alfonso, and General Aguinaldo in Cavite provinces; to increase people's awareness and availment of health services; and to pave the way for the introduction of income-generating projects like hog-raising, cattle fattening, and others.

The College of Medicine implements the Community-based Health Program (CBHP) in Laurel, Batangas where Year level 7 students are fielded to the community. In 1998, the program was expanded to include the town of Sto. Tomas for the medical students' immersion activities. In the same year, the Committee on Community-oriented Medical Education (COME) started implementing COME hours in which Year level 3 students conducted exposure trips to various health delivery institutions. Almost all academic departments implement community-oriented courses.

A component of this program is the Botika sa Barangay project being implemented by the College of Pharmacy where Barangay Health Workers are trained as pharmacy aides to man the botikas being set up in the area.

The College of Dentistry continued to implement its community dental outreach project among pupils of the Integrated School in UP Diliman and residents of Krus-na-Ligas in Quezon City. Through a program dubbed "Isang Ngiti, Isang Lahi," dental teachers nationwide are being trained on how to enhance their teaching skills on dental care. In 1998, the college implemented a new dental community program at the Asilo de San Vicente de Paul, an orphanage for children and youth aged 6-16 years.

The AKBAY-KALUSUGAN radio program of the College of Nursing aired over DZLB at UP Los Baños is able to reach 23 provinces in Laguna and has attracted 600 enrollees for the community health workers training program. A total of 32 teleconferencing activities were also conducted by the college in three satellite centers: Zamboanga City, Davao, and Bicol. Of the 3,640 nurses who participated in the activities, 2,100 came from Zamboanga City, 700 were from Davao and 840 were from Bicol. Teleconferencing activities have also been started with the Cagayan Valley Regional Hospital and several more hospitals are scheduled to be included in the next few years.

In 1997, the College of Arts and Sciences launched the Field School Program in Tagkawayan, Quezon where students were deployed for four weeks to develop in them a deeper appreciation and understanding of problems in the community; test the relevance of theories learned in the classroom and provide them with opportunities to immerse with the people, and learn about their problems and aspirations as well as their culture and values.

Already, three batches of students have been fielded in several barangays. The first batch, composed of nine students fielded in February, 1997 conducted a study on commercial fishing practices in the province. The third batch, fielded on 18 October - 5 November 1998, conducted ecological assessment studies on river systems, corals and mangroves; and undertook studies on commonly used herbal medicines, the social implications of environmental laws, and the effects of devolution on health services.

CAS also launched its gender sensitivity program called BAI (Filipino term for the concept of man-woman integration) to foster socially responsible and gender sensitive curricular programs; encourage studies on the health, status, and quality of life of women; assess the impact of scientific and technological development on gender issues; and disseminate these ideas, information, knowledge and experience especially among workers, educators, scholars and policymakers.

The Modified Residency Training Program (MRTP) of the Institute of Ophthalmology continued to bring ophthalmologists to the barrios to train physicians on the different aspects of eye care. A total of 32 MRTP residents have been trained from 1993 to 1998 and two more will graduate in the year 2000. Based on the second national health survey done in 1995, the availability of ophthalmologists in the communities as a result of the MRTP is one of the factors believed to have caused a reduction in the prevalence of blindness among Filipinos.

Being the principal advocate and primary supporter of DOH's Blindness Prevention Program, the Institute also trained 1,394 health personnel and 302 physicians under this program.

The step-ladder curriculum education of the School of Health Sciences in Leyte is a whole range of community-based programs where all students spend 50 percent of their studies in the barrios and, as part of the contract, are required to go back to their areas of origin after every "step of the ladder" during their service leave to implement their health action plans developed in their courses. These activities include doing community surveys and diagnosis, and conducting information, education and communication (IEC) work.

An example of a specific town in Leyte where SHS students made an indelible impact in the lives of the people is Sta. Fe which used to be one of the depressed municipalities in Leyte despite its proximity to Tacloban. It had a high schistosomiasis rate. The improvement of the health conditions of the people is attributed to the information dissemination activities of SHS students. Schistosomiasis rates went down and no major disease incidences were reported in the town since 1997.

At the Philippine General Hospital, various programs that address the health needs of specific sectors of the population are being implemented.

The National Poison Control and Information Service provides clinical treatment to poisoned patients; information service on toxicological data on numerous substances and authoritative data on accepted methods of emergency toxicology and/or laboratory procedures in poisoning; laboratory services for qualitative and quantitative determination of common poison; and training on basic and clinical toxicology. It likewise conducts researches and publishes materials on the prevention and management of poisoning cases.

Other extension services PGH undertakes include the Comprehensive Ambulatory Respiratory and Rehabilitation Program for patients with chronic and lung diseases; the Burn Unit; the Child Protection Unit for victims of child abuse; the PGH Women's Desk for women victims of abuse; and the Special Psychiatry Unit, all of which were inaugurated in 1998.

The Department of Psychiatry and Behavioral Medicine of PGH opened a community-based Family Care program in Calumpit, Bulacan which was replicated in two other towns where rural health care givers trained in identifying and managing psychosocial problems assist the families of mentally ill patients.

Previously mentioned was the development of a generic Community Health Development Program which utilizes a comprehensive and interdisciplinary approach. The program provides students with opportunities to apply scientific concepts, principles, theories and practice skills relevant to their particular disciplines in a community setting; and to enhance their sensitivity, awareness, values and attitudes through linkages with the community. The program, which was pilot-tested in 1996 at UP Manila and in Pila, Laguna, proved the feasibility and achievability of learning outcomes.

Other non-PGH based services include the rehabilitation services being rendered by CAMP through its Clinic for Therapy Services which has accommodated patients not only from Metro Manila but also from nearby provinces. Another is the laboratory testing services being provided by the College of Pharmacy on the efficacy of drugs; and the College of Public Health on safety and quality of water and food, biological monitoring of blood, dust sampling and analysis, heat stress monitoring, illumination and noise survey, acid mist monitoring, and many others.

CONTINUING PROFESSIONAL EDUCATION (CPE)

From 1993 to 1999, several international CPEs were organized and conducted by UP Manila. Some of the noteworthy international and national conferences included the following:

- International Symposium on Disasters and Health
- International Conference on Quality of Life Research
- Fourth International Congress on AIDS in Asia and the Pacific
- STD/HIV/AIDS Epidemiology Consensus Workshop
- Pre-4th International Congress on AIDS in Asia and the Pacific
- Seminar Workshop on Quality Management in Health Services
- National Consultative Meeting to Formulate a Research Agenda for Marginalized Filipinos
- Symposium on Hospital Risk Assessment of Child Abuse Cases
- First National Conference on Myths and Legends
- First Training Course on Hospital Licensing
- First International Nursing Research Congress
- The 1st Southeast Asian Ministers of Education Organization Regional Tropical Medicine and Public

Health Network-German Agency for Technical Cooperation Consortium in Epidemiology

- Symposium on Alternative Waste Management
- Providing Quality Medical Care to the Poor by the RM Awardee Dr. Syed Abidul Hazan Rizvi
- Recent Developments on British Social Policy with Special Emphasis on Financial Services for Disabled Children by the Right Honourable Alfred Lord Morris
- The centennial lectures on the history of the health professions in the Philippines (pharmacy, dentistry, medicine, allied medical professions, public health, ophthalmology)

Regular CPE activities include the postgraduate courses on public health; short courses on occupational health and safety, health education, diagnostic parasitology, diagnostic mycology, research methods, tropical epidemiology, management of Health Services; yearly grand scientific symposia and the circuit courses of the College of Medicine; monthly seminars on teacher training; regular lectures by each department of PGH where updates and recent developments in the field are discussed; special lectures and symposia held as part of the commemoration of special events such as foundation celebrations, International Women's Day, Human Rights Month, Sight Saving Month, Nutrition Week, Disability Prevention and Rehabilitation Week, and many other events.

CONSULTANCIES AND SECONDMENTS

A number of national and international organizations benefit from the expertise and competence of UP Manila faculty members because many of them serve as consultants to different programs and projects in health and related fields.

Many faculty members in medicine, nursing, pharmacy and public health have served and continue to serve as consultants to several institutions here and abroad such as the World Health Organization, United Nation's International Children's Educational Fund, Ministries of Health of other Asian countries, the Department of Health, Bureau of Food and Drugs, Research Institute for Tropical Medicine, Senate and House of Representatives, other health schools and colleges, other health research institutions, and various government and private hospitals.

THE UGNAYAN NG PAHINUNGÓD

Launched in 1994, the Ugnayan ng Pahinungód- Manila has helped around 90,000 Filipinos from 1994 to 1998 through its 16 volunteer programs and more

than a thousand volunteer workers composed of students, health professionals and non-teaching staff of the University.

From two programs in 1994 to six in 1995, 16 programs are now being implemented which all underwent extensive efforts in conceptualization, preparation, finalization and revision.

The Health Missions program and its 285 medical, dental, surgical missions took care of 41,291 patients from Makati to Zamboanga del Sur. The Health Training Program had 62 classes spread over 33 communities of several barangays each from Quezon City to Palawan.

Under the Disaster Management Program, volunteer health workers trained and provided stress debriefing for caregivers from St. Scholastica and the Social Action Center of Pampanga (SACOP).

The Tutorial Service Program helped 971 students with learning disabilities from eight schools in the Ermita-Malate area.

The Summer Immersion Program rendered 24 missions in 21 rural, underserved communities from Aurora to Palawan provinces. The volunteers offered free clinics, health education classes, socioeconomic surveys, active community participation and organizing, and several livelihood and sanitation projects.

The Disaster Management Program fielded volunteer medical workers to the UP Disaster Response Centers and 13 evacuation centers in Pampanga; offered psychosocial processing to caregivers and high risk individuals; gave health training (and, later on, continuing education) to 39 volunteer health workers (VHWs) from the centers; as well as, provided medical assistance to the families there; and implemented, with the help of CPH, a sanitation program in the evacuation communities.

Other DMP activities for lahar-displaced people were the offering of assistance in livelihood projects (by selling/buying Pampanga star lanterns); the sorting of medicine at the SACOP; and the collecting and distributing of relief goods. The last three projects of the DMP involved disaster preparedness training for key UPM volunteers (Disaster Response Workshop, Critical Stress Debriefing, and formation of the Fire and Rescue Volunteers Brigade).

Sports Science and Wellness Consultancy Program included lectures to national coaches, as well as, three major workshops in Iloilo City, Cebu City and Calocan City.

The Hospice Care Program, with the help of the Cancer Institute (CI) and hospice care experts from PGH clinical departments, set up a five-bed inpatient unit inside PGH, held a University-wide information campaign, staged two specialized workshops and training sessions on hospice care, deployed six volunteers in 1998 to assist CI patients, and held gift-giving and caroling activities for patients.

The Affirmative Action Program (AAP) helped 625 third year students from 13 underrepresented provinces to improve their academic competencies and their chances of entering UP.

From 1996 to 1998, the Teachers Training Program (TTP) helped 185 public high school teachers improve their skills in Math, English, Science, and History.

Under the Local History Program, a History class and volunteer editors and artists saw the publication of *Homecoming: Brief Histories and Special Places*, a joint project of the Ugnayan ng Pahinungód System and the National Historical Institute.

The Ecoscouts Program, before being absorbed into the Expanded ROTC Program of UP Manila, taught volunteers and "tutees" of the Tutorials Program the use and creation of environment-friendly products. As alternative to Ecoscouts, the Earthcamp Program was created which held a symposium and a workshop on waste management; implemented a waste management control scheme at the CAS; implemented a tree-planting activity in Gumaca, Quezon; and, held a symposium on "Philippine Environment in Crisis."

The ER Volunteers Program deployed 304 pahinungóds since 1996 to assist at the PGH Emergency Room Complex.

The Streetchildren Program had, for three years, been reaching out to the young charges of three partner agencies (Kanlungan sa ERMA, Kaibigan Outreach Foundation, and the Young Women's Christian Association). It involved the children in two theater presentations which developed their self-confidence and creativity and earned proceeds which helped in the children's educational expenses. The program also had the children participate in various youth-oriented activities held at Fort Santiago, Museong Pambata, and Ayala Museum.

To provide students with more opportunities for volunteer work, the Service Learning Option was adopted wherein volunteer projects were made part of their course work. The guidelines for the SLO have been finalized through a series of meetings and consultative sessions with the deans and faculty members of the colleges.

During the past six years, the Ugnayan ng Pahinungod engaged in extensive public information and dissemination activities to inform the constituents of its programs and to entice more volunteers. Activities included photo exhibits, production of brochures, newsletters, annual reports, audiovisual materials, and the Pahinungod web page; and production of two volumes of books chronicling the experiences and anecdotes of volunteers titled "*Voluntarism in Action: A Pahinungod Journey.*"

The 90,000 beneficiaries, though a very big droplet for the cause, is just a small drop in an ocean of underserved Filipinos. The volunteer program still has to reach and mobilize 50% of UP Manila constituents, although plans are underway to attract more students and faculty members. At the moment, Ugnayan ng Pahinungód-Manila plans to go on with improved versions of its programs, integrating some when needed by a project. ■

HUMAN RESOURCE DEVELOPMENT

■ UP MANILA FULLY RECOGNIZES that its personnel is one of its major assets. It strove to promote personnel welfare through programs that addressing the various needs of its faculty and staff such as: basic needs, training, personal and professional growth, values development, cultural activities, a healthy and safe environment.

A recognition of its efforts was the Gawad Kalinga Award for "Most Employee-Friendly" government agency under the category "State Universities and Colleges " in 1998. The award was given by the Civil Service Commission and the Convenors Group of the Public Sector Employee Associations. The University consistently reaped runner-up honors in the previous years.

UP Manila was chosen for its strong commitment to promote employee welfare and well-being through its institutionalized programs on career, moral and values development; continuing provision of wholesome physical and psychological environment; democratic leadership; and most of all, its uncompromising concern for social responsibility.

STAFF COMPETENCY DEVELOPMENT

As of 1998, UP Manila has a total complement of 4,720 staff, 3,516 of whom are administrative staff; 739 are REPS; and the remaining number make up the faculty.

UP Manila holds a yearly orientation for new and old faculty members to introduce them to the goals, policies and practices of the University; their benefits and privileges, as well as their responsibilities. They are also briefed on the rules and guidelines in the conduct of teaching, research and extension service. The faculty members are also given sessions on teaching principles, methods and strategies.

The National Teacher Training Center for the Health Professions (NTTC-HP) of UP Manila conducts more intensive workshops with colleges and units with specific needs in terms of teaching, evaluation and other instruction-related topics. The Medical Education Unit of the College of



UP Manila confers the Employee of the Month award to spur employees to greater productivity and efficiency.

Medicine conducts workshops to meet the teaching needs of medical teachers. The other units are encouraged to hold/sponsor seminars based on their specific needs.

Research competency trainings are also undertaken by the different units to help faculty and researchers update their research skills. Staff development seminars and courses have also been conducted on computer literacy, technical report writing, stress management, time management, total quality management and other topics. Faculty members and nonteaching staff are also exposed to the reality of gender prejudices through an orientation seminar on Gender Sensitivity.

The nonteaching personnel have also benefited from activities organized by the administrative staff development committee.

VALUES DEVELOPMENT

Recognizing that productivity necessitates a blending of skills, values and attitudes, UP Manila started conducting the Values Orientation Workshop (VOW) in 1994. The focus of the workshop is the human side of productivity, with emphasis on enhancement of positive values and attitudes. The workshop provided the participants a unique opportunity to examine their personal attitudes and values in life, especially those which are relevant to their work, and necessary for free, individual decision-making. Lasting for three days, VOW utilized lectures, plenary sessions and structured learning experiences to impress upon the participants five basic topics: human dignity, valuing human relations, professionalism and productivity, family and work, and charting personal directions.

A total of 3,552 UP Manila employees have undergone the VOW: 467 in 1994; 1,187 in 1995; 742 in 1996; 692 in 1997; and 434 in 1998.

CHANCELLOR'S COMMITTEE ON CULTURE AND THE ARTS

Even as UP Manila is considered a leading institution of learning for the health sciences, it is also slowly being recognized as a center for culture and the arts. Aside from offering degree and non-degree courses on Filipino arts and culture, it also implements activities to deepen the constituents' understanding and appreciation of the various art forms.

These activities are being implemented by the UP Manila Chancellor's Committee on Culture and the Arts (UPMCCCA) and the different colleges/units. The CCCA was created in 1993 to foster the renaissance of cultural activities in the University and to implement the policies of the UP-wide Committee on Culture and the Arts at the autonomous university level.

The Committee formulates and implements short and long-term artistic and cultural programs designed to develop among UPM students and personnel an awareness of the various artistic forms and an appreciation of their cultural heritage, and

enrich their creative and artistic talents. It coordinates the various artistic and cultural programs of UP Manila, promotes and publicizes these activities, and facilitates cultural and artistic exchange of activities among campuses and art centers.

The CCCA actively seeks and supports projects that showcase Filipino culture and values.

At present, UP Manila constituents have a wide range of art and cultural activities to participate in and many groups to choose from: Gandingan, Folklorika, Sayaw Bathala, Rock Bond, UP Faculty and Staff Choir, Rondalla, Indayog, Anak-Tibawan, Debate Circle, UP Manila Chorale. Through the College of Arts and Sciences, UP Manila celebrates February as Culture Month which is usually marked by various activities such as lectures, poetry readings, photo contests and essay writing contests, concerts and others.

BASIC NEEDS

The faculty and staff enjoyed promotions in 1994, 1995 and 1996.

Programs which cater to the health needs of faculty and staff include: provision of free consultancy services and discounts of hospital fees through PGH; 100 percent discount on tuition for employees and their dependents who study at UP; meal and subsistence allowance and hazard pay for PGH employees; provision of a half-day study leave with pay for those studying in UP in fields related to their work; and provision of additional retirement benefits and loans through the UP Provident Fund which also administers the University Health Plan. The conceptualization of this health insurance scheme for UP System employees was spearheaded by UP Manila.

The UP Manila Creche and Child Center was established in June 1994 to provide preschool facilities for children of its employees. The Center has a breastfeeding room where employees can leave their babies and children while they are in the office. The Center gives the babies and children personal care with emphasis on health and physical growth. Varied introductory educational activities are likewise given to the children. For preschoolers two to six years old, there are programs for toddlers and children in nursery, kindergarten and preparatory classes. A vertical class is also offered where children attend their regular classes then stay in the center for the rest of the day to allow the parent-employees to accomplish office work and fetch their children after office hours. A total of 433 nursing mothers and children have been benefited by the center: 62 in 1995; 111 in 1996; 119 in 1997; and 141 in 1998.

A SAFE AND HEALTHY UNIVERSITY

Congruent to the thrusts of both national and international concerns about health and in the spirit of relevance and globalization, the UP Manila conceived of a "Safe and Healthy University" which encompasses aspects of prevention and promotion of health education, nutrition education, injury prevention, safe water and food supply, fire safety, security, proper waste management and disposal of condemned equipment, cleanliness of the surroundings, pest control, physical fitness, drug prevention and over-all aesthetic quality of the environment around the UP Manila campus. The program seeks to oversee and coordinate existing programs/projects for possible implementation in the University and in other units/offices in the university with unique needs with special emphasis on marginalized groups or students and employees that are of high-risk for developing health and environmental problems.

STAFF ORGANIZATIONS

UP Manila supports the initiative of its rank and file in organizing sectoral and multisectoral groups in order to highlight their participation in attaining sectoral goals and in enhancing staff welfare and development. Active groups include the Organization of Non-Academic Personnel of UP (ONAPUP), the All UP Workers' Union and the Researcher Extension and Professional Staff Association (REPSA).

The UP Manila REPSA marked its first anniversary last October with activities such as photo exhibits, a short program and a raffle. Offices and members also attended the first systemwide REPSA Conference held at UP Los Baños.

HONORS AND AWARDS

UP Manila has engendered a culture of excellence and generosity. Constituents were encouraged to excel and they reaped awards within and outside UP Manila. UP Manila recognizes the men and woman who brought honor to UP Manila through their University, national, and international awards. ■

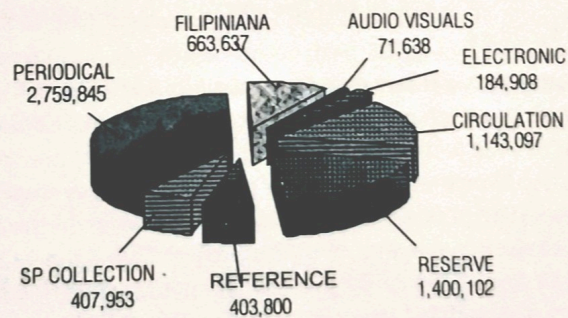
LIBRARY DEVELOPMENT AND INFORMATION TECHNOLOGY

COLLECTION DEVELOPMENT

As of 1998, the UP Manila Library collection stood at 184,144 volumes or 38.18 percent of international standards. There was a decrease of about 5,730 volumes due to the weeding out of unserviceable materials at the Pharmacy Library.

In 1993, the library started to acquire electronic reference resources. Some of the databases added to the collection are *Bibliofile*, *Bioethics Time Plus*, *Chembank*, *CINAHL*, *Drug Information*, *Humanities Index*, *Inpharma*, *Social Science Index*, *Science Index*, *Biography Index*, *International Pharmaceutical Abstract*, *MEDLINE*, *OVID*, etc.

Figure 2-1 ■ Use of Library Resources



COMPUTERIZED LIBRARY PROCEDURES AND SERVICES

The UPM library has achieved tremendous progress in using information technology to facilitate library services and procedures.

In 1994, the College of Public Health library established the first local area network and developed an electronic bibliographic database of existing library resources. It also established electronic mail facilities, and the bulletin board system, and linked with local and foreign information systems under a grant given by the Federal Republic of Germany. At present, users are able to search through commercial bibliographic databases in health such as *Health Plan*, *OSH-ROM*, *POPLINE*, *WHOBIS* (*World Health Organization Bibliographic Information Services*), *Philippine Statistics of the National Statistics Coordinating Board* and *Philippine Health Statistics*.

In 1995, the University Library Manila established an Integrated Library Management System using the TINLIB (The Information Library Navigator) under the DOST-ESEP Library Network (World Bank Project). This system enabled the UP Manila Library to automate its operation and services.

Eight-user licenses are used for the computerized cataloging, acquisition, serial management and on-line public access catalog. The Bibliofile software is being used for retrospective cataloging of library materials. As of 1998, a total of 79,745 records have already been converted to electronic format.

During the 88th UP Manila Foundation Celebration in 1996, the University Library Manila launched the On-line Public Access Catalog which provides access to the books and serial holdings of UP Manila using TINLIB. It is available online 24-hours a day in the Internet through UP Manila's website. The information that UP Manila delivers is not limited to information resources held by the UP Manila libraries, but includes information available from any site in the Internet, and in libraries linked to the UP Manila Library Network.

The University Library "Cybernook" with 10 terminals was installed in 1997, under the DOST-ESEP Library Network project. It enables users to gain access to remote stations and to surf the Internet. It also provides electronic mail and CD-ROM facilities.

Another significant stride achieved in 1997 was the setting up of the Electronic Medical Research and Library Databases System (EMERALDS '71) at the Medical Library. This is the first electronic facility in the country's medical education system that allows users to access global sources of digital information in abstract form and in full text with graphics. Databases in the system include MEDLINE from 1966 to the present and, OVID Biomedical Collection of 30 medical journal titles in full text from 1993 to the present. Inaugurated last October, 1997, the P6-million project was realized through a P3.68-million donation of CM Class '71 and a P2.6-million allocation from the countrywide development fund of Senator Franklin Drilon.

UP Manila provides students, faculty and researchers the necessary references through the various collections of UPM libraries.

The UPM libraries also served the information needs of health professionals in the country. A total of 99,902 library users were served in the various unit libraries of UPM.

The UPM Library developed electronic bibliographic databases of Filipiniana materials accessible on-line in the Internet namely: *Theses & Dissertations*, *Students Research Papers & Reports*, *Professorial Chair Lectures*, *Philippine Index Medicus* and *Union List of Periodicals*. Other databases will soon be on-line: *Faculty Research Papers*, *Mosquito Borne Diseases*, *Special Database on Water and Vertical Files*.

Another reference tool compiled and published by the University Library Manila was the *Philippine Index Medicus Abstracts, 1991-1995*. This publication was launched on June 19, 1998 as the UPM Library's centennial publication. The volume contains 3,372 data from 65 local and 230 foreign medical and health journals. This publication is noteworthy for its abstract component in addition to the usual index entry. The electronic format of this database is searchable using the CDS-ISIS retrieval software.

EXTENSION SERVICES AND LINKAGES OF UPM LIBRARY

The library rendered extension services in the form of on-the-job training, consultancies, lectures, technical assistance and collaborative projects with academic and research institutions/libraries in Southeast Asia and in the country.

The UPM Library was host institution and study site for WHO fellows and Southeast Asia Medical Information Center (SEAMIC) fellows from Singapore, Thailand, Malaysia, Indonesia and Korea. The University Library was visited by 15 university librarians from Mongolia to study library administration and management under the Asian Development Bank project.

UPM is a major participating node of DOST-ESEP Library Network established in 1995, aimed to provide up-to-date information to researchers and development staff, faculty and students of science and technology. As a result of these linkages, UPM received a grant for upgrading the collection of the College of Medicine library on pharmacology and UPM became a primary node of PhNet which facilitated not only access but also UPM presence in the Internet. UPM library website URL is <http://lib.upm.edu.ph>.

INFRASTRUCTURE AND PHYSICAL PLANT IMPROVEMENT

The College of Public Health Library was renovated in 1993 through the financial assistance of the Federal Republic of Germany.

The History of Medicine and Multimedia Room of the College of Medicine library was inaugurated in 1994. Construction and equipment amounting to P1,000,000 was financed by UPCM Class 1952.

The inauguration and opening of the University Library was held on 22 June 1995. The four-story building houses, on the first floor, the Cybernook, Multimedia Room, Online Public Access Catalog Terminals, General Reading Room, and the Computer Center of UP Manila. The second floor houses the centralized library services such as the Administrative Services, University Librarian's Office, Technical Services, Bibliography and Indexing Room, Conference Room, and Staff Lounge. Located on the third floor are the Reference Section, Stacks, and on the fourth floor, the Exhibit area, Memorabilia of the past Chancellors of UP Manila and faculty publications, paintings, school photos and stack area. The University Library Building was completed through UP Manila funds.

The unveiling of the Dr. Murray Bartlett (first UP President) Watch Display was done at the University Library on the occasion of the 88th UP Manila Foundation celebration, in June 1996. During this year, three ceiling-mounted air-conditioning units donated by Dr. Hugh Greenwood were installed in the first floor Reading Room of the University Library. Also installed were five telephone lines.

Inaugurated in 1997 were the College of Nursing Library and the College of Pharmacy Library. The College of Nursing building was constructed through an allocation from the countrywide development fund of Congressman Rolando Andaya, and the College of Nursing library was renovated by the College of Nursing Alumni Association. The College of Pharmacy building was completed through UP Manila funds and donations.

The College of Arts and Sciences Library Reading Room air-conditioning units, were donated by CAS Alumni Foundation and F & J de Jesus.

INFORMATION TECHNOLOGY DEVELOPMENT

The UP Manila Information Technology Development consists of several inter-related, coordinated and collaborative projects implemented by various units at different levels. The mission of the information technology development is to improve health and contribute to national development by harnessing the potential benefits of information technology for excellence in education, management effectiveness and efficiency, human resource development and health care services. These are described below.

Internet Connectivity

Goal : Internet access for the faculty, staff and students

UP Manila became a member of the World Wide Web when it joined as a primary node in the DOST-ESEP project. Through PHNET, UP Manila was electronically connected

to the Internet and 10 other participating academic institutions nationally. A second gateway through the UP System network will soon be operational.

To make this connectivity accessible to the faculty, staff and students, a cybernook was established at the UPM computer center and at the University Library. In addition, several dial-up lines were also made available. Connectivity of unit local area networks is now possible through the UP Manila fiber-optics backbone.

Fiber Optic-based Campus Wide Area Network (WAN)

Goal : A UP Manila information technology backbone

The 21 UP Manila buildings which include eight academic colleges, the Philippine General Hospital, the National Institutes of Health and the various administrative offices are now connected through the fiber-optic campus network backbone. In addition, the campus information technology backbone will soon be connected to the UP System information network.

Aside from Internet connectivity, the backbone will be used to develop an intranet system (an internal network within UP Manila for sharing information and management activities). For example, memoranda and information for dissemination can be placed on the Intranet thereby saving on photocopying costs.

Library Intranet and National Networking

Goal : A UP Manila intercollege library intranet system with national and international connectivity

The libraries are also moving towards a mix of an electronic media collection and print material by acquiring multimedia CD-ROM. Special mention is made of the Medicine Class 71 who, with the assistance of Senator Franklin Drillon, put up EMERALDS (Electronic Medical Research Library Database System) project which provided for hardwares and library database subscription.

The fiber optics Wide Area Network (WAN) will enable interlibrary connectivity between the various College/unit libraries.

Office Automation and Information Systems

Goal : Automated, paperless offices compatible with government rules, regulations and requirements

To further maximize the cost-effectiveness of an electronic network, it is desirable to computerize basic routine procedures and provide sharing of information and hardware. The project envisions networking computers within an office and linking the office LAN with the WAN.

The different administrative functions programmed to be computerized include the following: Registration/students records, Personnel, Alumni, Finance (Budget,

Accounting, Cash), Property and supply, Building/equipment maintenance, Research, Extension services, and Administrative transactions and document tracking.

To date, the following information systems have been developed:

- Student information system that includes:
 - computerized registration/enlistment system
 - post-enlistment information system that can generate the following reports:
 1. class list
 2. grade sheet
 3. true copy of grades (per semester, annual or entire period of student's stay)
 4. scholastic standing/academic performance
 5. student delinquencies
 6. change of matriculation (dropping, change of grades, etc)
 7. statistics (by sex, by college, by course, employed students, etc)
- Payroll system - an electronic employee database that includes monthly payroll, remittances and other reports related to employee compensation and benefits. This includes database report for the bank's ATM salary disbursement
- Personnel database
- Alumni directory

To implement office automation and personnel productivity, computer acquisition was accelerated. During the period 1993-1998, 311 computer units or 53.8 percent of the present total units available were acquired. This reduced the employee-to-computer ratio from a high 2.73 employee per computer in 1993 to 1.7 employee per computer in 1998.

Computer Literacy Training

Goal: A computer literate work force

Complementing the development of the network and the system is the computer literacy education of the users. It is the objective that the staff of UP Manila shall be computer literate. Realistically, we can predict three groups within the staff: (1) those who are already computer literate; (2) those desirous and willing to learn; and (3) those who cannot or refuse to learn.

An IT training room has been established with 10 training computers. In addition, the computer laboratory of the College of Public Health, the College of Arts and Sciences and the Learning Resource Center are also used for computer literacy training.

From 1995 to 1998, a total of 317 staff participated in the various training programs conducted on the following areas:

- DOS/Window concept
- Basic computer troubleshooting
- Intranet/Internet concept and access
- Systems operation/LAN Administration
- Application software : Word, Excell, Access, Powerpoint, HTML, etc
- Database administration and management
- Web page design and development

Computer Software Licensing and Y2K Compliance

Goal : Computer software access and Y2K compliant computers

The project involved a review and assessment of the computer software for each user and the installation of a licensed copy. Presently, all computer software in use are licensed.

Y2K compliance testing of computers was incorporated with the computer maintenance program. Non-Y2K compliant computers were evaluated as to its utilization requirement. Where needed, a corrective program was installed.

Computer and Information Technology research agenda

Goal : Explore the potentials of computers and information technology for education and health care delivery

The Computer Research and Information Technology for Health Program is a component of the National Institutes of Health, will spearhead computer and information technology application for education and health care delivery. The research agenda of the unit include: Health informatics standards, Computer-assisted and interactive instruction, Health information systems, Computer-based patient records, Image and signal processing and Clinical decision-making support.

The program is presently doing two studies: Y2K relevance in health, and standards for health informatics. The latter study has been adopted by the Department of Health for its health information infrastructure project.

College/Unit-based projects

Local Area Network

Goal : College and office local area network interconnected to the WAN

To date, the following units have a local area network (LAN) connected to the campus information technology backbone: College of Public Health, College of Medicine, College of Arts and Sciences, College of Nursing, and Central Administration.

The College of Public Health and College of Medicine have a computer laboratory. The National Institutes of Health and the Learning Resource Center have cybernooks. The College of Medicine and the Learning Resource Center have computer-aided learning centers which are also used as a computer-aided classroom.

PGH and Patient Care Delivery Computerization

Goal : Computerized patient care delivery system

At present, some administrative functions and out-patient services are computerized. UP Manila envisions a fully computerized PGH and patient care delivery, including: PGH local area network, Administrative services automation, Patient services automation, Out-Patient care services automation, In-Patient care services automation, and Hospital management information system.

Computer and Information Technology-aided Teaching

Goal : Computer and information technology-aided teaching

In the area of teaching aids, a combination of the chalk & blackboard/white board, overhead slide projection, and slide projection is used. It is envisioned that in the immediate future, computer-and-information technology-aided teaching will also be used. UPM foresees that:

- The classroom overhead and slide projector will slowly be complemented by an LCD projector.
- Computer-assisted learning centers will be developed using available or indigenously produced interactive learning modules.
- Classrooms will be linked to an instructional material database
- Learning will truly be interactive with the professor serving as a facilitator

The College of Medicine has spearheaded this process by establishing its Medical Informatics Unit. It is the unit's task to educate and assist the faculty toward this new mode of instruction.

Office for Extension and Continuing Education-based project

National Telehealth Center

Goal : Improving health care through information technology

The National Telehealth Center (NTC) project capitalizes on UP Manila's pool of experts and cumulative experience in international teleconferencing, national

continuing education by distance mode, health chat using the Internet and module preparation for distance education. The project proposes to use information technology for the continuing education of health professionals and the public.

The National Telehealth Center was approved by the Board of Regents at its 1122nd meeting on 25 June 1998. The project will be implemented in phases as infrastructure capability becomes available.

Phase 1 will be Internet-based, thus primarily text-graphic based. Educational materials will be loaded in a web site and can be accessed by anyone with access to Internet. Interactivity will be provided the user by entertaining questions and comments through a "health forum" bulletin board. Scheduled interactive session can be arranged through "health chat."

Phase 2 will combine voice with Internet capability. The text-graphic Internet-based material will be complemented by interactive, on-line audio communication. The source material may come from the telehealth center (UP Manila) or the satellite node. Specific activities will include: International teleconferencing, Continuing education teleconferencing, Regular college/department activities, Interactive consultation, and Special lectures.

Phase 3 will be an upgraded version of Phase 2 to include video. In addition, skills or psychomotor training will be possible because of the added video capability. The more sophisticated facility requirement will necessitate a common facility or a telehealth auditorium.

Phase 4 will be an upgraded version of Phase 3 in that the source material may originate from various locations, e.g. a college auditorium, department, operating room, etc. This will become possible when all the UP Manila units become interconnected through the fiber-optics IT backbone.

Currently available is the Health Cybermag, a monthly continuing education magazine for the health professionals. This can be accessed through the UP Manila web site.

On the pipeline is a project with the Department of Health and the World Health Organization to strengthen the "district health system". The pilot project consists of linking 5-health facilities located in far-flung areas with UP Manila. Self instructional modules (SIM) will be developed for identified training needs. These will then be made available to the learning center through the Internet.

Special Project

Information Technology Complex

Goal : Synergism between information technology related units

As pointed out in the telehealth project, there is need to establish a common facility for teleconferencing. Thus, it made sense to locate the different information technology units in a single physical area. This will facilitate synergism among the

experts and sharing of equipment and software. The Information Technology Complex, construction of which will soon start, will house the following units initially:

- Teleconferencing auditorium
- Office of Information Management Support
- Office of Extension and Continuing Education
- Computer Research and Information Technology for Health Program
- Medical Informatics Unit
- Electronic Data Processing Unit.

GOVERNANCE AND ADMINISTRATION

■ GOVERNANCE AND ADMINISTRATION in the University of the Philippines Manila was greatly helped by mechanisms undertaken to consult constituents on programs and policies for wider acceptance, dissemination, and implementation.

The Assessment, Reaffirmation and Visioning (ARV) workshop held periodically provided the administration the necessary opportunity to feel the pulse of the University with regard to programs and policies. Representatives of all colleges and units took part in assessing previous activities and in planning for the years that followed. From 1994 to 1999, four ARV workshops were held.

The Chancellor's Advisory Council and the 40 UP Manila-wide committees also facilitated the governance and administration of the university.

POLICIES AND PROCEDURES

UP Manila maintains a compilation of administrative procedures for ready reference. In addition, a manual of operations is being completed. For each administrative procedure, the Manual includes a listing of the activity, the person accountable and the time frame of completion. This manual was prepared by the chiefs of the administrative divisions.

Weekly meetings of the chiefs of the administrative divisions are also being held to tackle multidivisional concerns. Representatives of the units are invited for a more effective approach to problems concerning the units.

Monthly meetings of the administrative officers are also held. Memoranda and guidelines are elucidated during these meetings.

PHYSICAL PLANT AND EQUIPMENT DEVELOPMENT

Many colleges/units benefited from the new construction projects as well as the renovation of existing facilities to meet the increasing demands posed by new or strengthened programs.

During the past six years, UP Manila provided each college and most of its units with its own building/office. These colleges/units were the College of Pharmacy, the College of Nursing, the College of Dentistry, the National Institutes of Health, the College of Arts and Sciences, the School of Health Sciences in Leyte, the Sports and Wellness Center, the Central Administration, the Ugnayan ng Pahinungod, the Creche and Child Center, the Learning Resource Center, the UP Manila Development Foundation, Inc., the University Library, the Chancellor's Guest Suite, the UP Provident Fund, and the Safe and Healthy University Committee.

Scheduled for construction are the College of Allied Medical Professions building for which Rep. Rolando Andaya donated five million pesos, the NIH Smart building, the NTTC-HP building, the student dorms and the UP Manila Carillon, and the offices of the following units: Learning Resource Center, Sentro ng Wikang Filipino, National Graduate School for the Health Sciences, Faculty for Health Sciences (of the UP Open University) and the Property and Supply Office.

Other completed construction projects include the Multidisciplinary Laboratories inside the Doña Paz Mendoza Medical Memorial Building, the renovation of pharmacy and nursing auditoria, the CAS Little Theater, and laboratory rooms at the College of Medicine and the College of Arts and Sciences.

It also renovated and/or expanded the College of Medicine building and some academic and administrative support offices such as the Office of the University Registrar, and the Cash Division.

Extensive repairs were done for the College of Medicine Annex I, the College of Public Health (Lara Hall), the College of Arts and Sciences (Gusaling Jose Rizal), the UPM Main building (Gusaling Joaquin Gonzales) the UPM Annex I (Student Center).

Also attended to were the provision of cisterns, pylons for outstanding events, street lighting for Pedro Gil Street, the asphaltting of roadways (with assistance from Senator Juan M. Flavio), and construction of a uniform perimeter fence and gates around the campus.

In 1998, the College of Public Health Distance Education building was constructed through the donation of the German Agency for Technical Cooperation (GTZ).

An outstanding focus of facilities upgrading is the installation of the fiber-optic backbone to link the colleges and units of UP Manila through the Local and Wide Area Network (WAN) and for Internet connectivity (Please see separate report on Information Technology Development).

The blueprint for the setting up of an Information Technology Complex at the second floor of PGH was completed. To be hooked to the Internet, the complex will

house all existing Information Technology offices such as the Information Management Service, the National Institutes of Health, the Medical Informatics Unit, the Electronic Data Processing of PGH, and the National Telehealth Center.

Part of the physical plant expansion is the upgrading of equipment to help each college/unit perform more effectively and efficiently its teaching function.

The past six years saw a sizable portion of donations to the University in terms of laboratory and classroom equipment. In addition, all colleges/units have acquired a considerable number of computers which helped them produce clear and good quality instructional materials to supplement their teaching. Most faculty members have their own e-mail addresses and are allowed internet access. The full operationalization of the WAN and LAN will greatly facilitate coordination and networking among the colleges/units.

The Electronic Medical Research and Library Database System (EMERALDS) and the University Library's being a member of the Department of Science and Technology-ESEP networking project are good sources of relevant data and information so crucial to the health and medical professions.

FISCAL MANAGEMENT

Fiscal Resources

The University derives funds from three sources: the national government, University income, and grants and donations.

For 1998, national government allocation for UP Manila amounted to P1,322,334,114.91 divided into Personnel Services—P939,310,236.91; Maintenance and other Operational Expenses—P325,093,878; and Capital Outlay—P57,930,000.00.

The programs/projects of expenditures were general administration and support services, personnel benefits, advance and higher education, research services, health services and extension services.

Sources of university income include hospital fees, tuition, sale of publications, rental of facilities, training fees, and others. Out of a total of P279,318,291.84. Allotted for 1998 expenses, P264,023,269 was spent.

Resource Generation

The University completed the construction of the College of Nursing, College of Pharmacy, College of Arts and Sciences Annex building, the National Institutes of Health building, the Chancellor's Guest Suite, and the equipping of these buildings through funds donated by legislators and other government agencies, alumni and private individuals. Through the same sourcing scheme, the College of Dentistry is also being constructed.

To encourage and facilitate more donations, several bodies were created in 1994 such as the Committee on Resource Generation, the UP Manila Development Foundation, Inc., and the Chancellor's Oblation Club.

The past six years also saw an overwhelming increase in the number of professional chair donations and scholarship and research grants for the different colleges.

From 1993 to 1998, UP Manila received a total of P149,587,398.37 in trust funds or an average of P24,931,233.06 each year.

COST-CUTTING MEASURES

Cost cutting measures have been emphasized with the national economic crunch in 1997. A task force was created to ensure the implementation of the measures and to monitor compliance.

The UP Manila Pahinungod made a big impact as a result of its Bantay Tubig Program; the University was able to realize a saving of P5.5 M in 1998.

ALUMNI AFFAIRS

The Office of Alumni Affairs serves as link of UP Manila to its alumni, and of the alumni to the UP Manila academic community. It is tasked with maintaining an updated roster of alumni, developing programs to attract alumni assistance to UP Manila, networking with alumni to encourage their participation and involvement in University affairs, and providing services to alumni by assisting them in their homecoming celebrations and in their other activities.

Data Banking

The office published the first UP Manila Alumni Directory in 1994 through the assistance of corporate sponsors and is presently updating the directory to include the list of graduates from 1994 to 1996 and incorporate changes in address and status of alumni. The office intends to publish the second edition of the directory in time for the general homecoming of UP Manila alumni.

The first issue of *The Pillars*, a collation of alumni donations from 1990-1994 was published in June 1994. Certificates of Appreciation signed by the Chancellor were sent to donors acknowledging their contributions and expressing the University's appreciation for their support and assistance. The donations come in form of cash, capital outlay, equipment, books, scholarship and faculty grants, endowment and trust funds.

A second volume of alumni donations from 1994-96 is scheduled for publication soon.

As an input to the UP Faculty Conference in 1995, the office conducted a survey and interviewed UPM alumni on their perceptions of UP ideals, on values that they continue to uphold and on what they consider as marks of a UP Manila alumnus/a.

The office is starting to input information regarding alumni in government, non-government and corporate offices, identifying areas of expertise and names of alumni who can be tapped to lend technical and professional assistance to the University's teaching, research and extension programs.

Networking

The office coordinates closely with the Alumni Affairs Officers of the various colleges. Regular meetings are scheduled with them by the Chair to monitor alumni activities in their respective colleges and to identify alumni needs and college programs requiring alumni support.

The Chair also joins alumni associations in their homecoming celebrations and in their fellowship activities. During these events, the office distributes alumni directories, publications of IPPAO, brochures and other materials of interest to UP Manila alumni.

Together with the UP Manila Alumni Association, the office organized the *Ugnayan* in 1995, a social interaction activity among alumni and between alumni and UPM faculty and administration. Topics of common concern are discussed in these meetings.

Service to the Alumni

The Office of Alumni Affairs serves as Information Center to alumni. Information related to alumni matters are coursed through the office and disseminated to alumni. It assists the UP Manila Alumni Association in organizing the general homecoming and acts as secretariat in its meetings.

In 1994, the office introduced the alumni ID card. The card entitles the alumni to the use of the library facilities in UP Manila as well as access to buildings and parking areas if they visit the colleges or attend University functions. A Privilege Book containing a list of discounts in commercial establishments and professional services is being prepared by the office as added benefit to alumni. The alumni ID card shall serve as the discount card.

Alumni Associations

Organized in 1994, the UP Manila Alumni Association serves as umbrella organization to all the college-based alumni associations. A Board of Directors, elected among nominees from the chapter associations, is elected during the annual homecoming. Presidents of chapter associations and the Chair of the Alumni Affairs Office are ex-officio members of the board.

- Faculty of Medicine; University of Witten/Herdeku, Witten, Germany, on October 7, 1998
- Kobe University School of Medicine last November to promote cooperation in academic fields and research activities
- The College of Nursing finalized arrangements on a student exchange program with VUT

The University explored new linkages and areas of collaboration with the following institutions:

- Monash University in Gippsland, Victoria, Australia
- Japan and Japan Human Science Foundation, Gunma University, Japan
- The New Children's Hospital, Westmead, Australia
- Queensland Institute of Medical Research, Australia
- University of Sydney
- University of South Australia
- McQuarie University

UP Manila presented the final report of the 17-year old DOST-JSPS program in the field of medical sciences which ended in March 1998.

The annual homecoming of the UPMAA coincides with the Foundation Day celebration of UP Manila. Initially scheduled in October, the Foundation Day celebration has been moved to June. Last year, in addition to nominating the outstanding alumni of UP Manila, the UPMAA decided to give professional awards to alumni who have contributed to national development, and to the improvement of the quality of life of the people and who have distinguished themselves in their professions.

The chapter alumni association based in UP Manila include: College of Arts and Sciences Alumni Association, College of Allied Medical Professions Alumni Association, University of the Philippines Dental Alumni Association, University of the Philippine College of Nursing Alumni Association, University of the Philippines College of Nursing Alumni Association International, Philippine General Hospital School of Nursing Alumni Association, National Teacher Training Center for the Health Professions Alumni Association, University of the Philippines College of Pharmacy Alumni Association, University of the Philippines Medical Alumni Society and University of the Philippines Medical Alumni Society of America.

These chapter alumni associations also have their respective plan of activities and accomplishments.

The generous support of the chapter associations to UP Manila's faculty development, improvement of facilities and infrastructure, and scholarship grants have contributed to the successful implementation of many of these programs.

LINKAGES

Collaboration and networking with internal and external institutions, whether local or international enable UP Manila to strengthen and expand its academic, research, and extension programs through a sharing of resources and capabilities. These linkages provide UP Manila with a broader perspective of and new insights on program implementation. These are usually categorized as academic or research, and can be with internal units in UP Manila or with other UP autonomous campuses, or with government agencies, private institutions, nongovernmental organizations, or international agencies.

The past six years saw a significant increase in the new linkages and a strengthening of existing linkages. New programs such as the Ugnayan ng Pahinungod, School for Distance Education, Graduate School, the NIH, Child Protection Unit and many others paved the way for the establishment of even more linkages with various universities, health agencies and local government units.

In 1998, new agreements were signed with the following international institutions:

- University of Queensland for a program of academic exchange and learning
- Department of Otorhinolaryngology, Head and Neck Surgery of University of Munich on educational, scientific and scholarly exchanges.

THE UNIVERSITY OF THE PHILIPPINES MANILA FOUNDATION, INC.

The University of the Philippines Manila Development Foundation, Inc. (UPMDFI) is a private institution created to contribute to the development and growth of UP Manila and to national welfare by encouraging, undertaking, and/or underwriting the following programs: institutional development programs, basic and applied research, and creative work in the health sciences, natural sciences, biological sciences, social sciences and the humanities.

UPMDFI endeavors to supplement the resources made available by the government and the income generated by the University. It also serves as manager of UP Manila projects, providing initial capital requirement for these.

Through trust and endowment funds, UPMDFI has, in its portfolio, twelve (12) professional chairs, nine (9) faculty grants, three (3) student awards for excellence and a trust fund for specific projects.

The UP Manila Chancellor's Oblation Club was established to recognize and honor donations for the benefit of the University of the Philippines Manila. Foundation donors have been awarded plaque of appreciation.

CENTENNIAL CELEBRATION

UP Manila's role as the cradle of many of the original degree programs of the university was highlighted in 1998, the centennial year. At the same time, its role as the health campus was emphasized in the year-round lecture series on developments in the various health professions during the last 90 to 100 years. A cornucopia of various types of activities added color and pageantry to the centennial celebration.

The launching of the Centennial Celebrations and the Proclamation of the UP Decade was held at UP Manila, the site of the original central campus set up under the American colonizers when the university was founded in 1908. The year 1998 was a historical milestone to mark the 100 years of the inauguration of Philippine independence and the 90 years of the University of the Philippines. The launching was presided over by President Fidel V. Ramos and the First Lady, Mrs. Amelita M. Ramos. Among the major events held on January 26, 1998 were the burying of the time capsule, the ground breaking for the Apolinario Mabini Carillon, the opening of the centennial exhibits and the UP Centennial Message of President Ramos. Also held in January were the centennial lecture on Teaching in the Health Professions and the celebration of the second year of the founding of the National Institutes of Health. The opening of the Dean Julita V. Sotejo Memorabilia was also held on January 30.

Events in February included the centennial lecture on 100 Years of Dental Care in the Philippines during the 81st year founding of the College of Dentistry and the Dean Sotejo Lecture Series on "Nursing during the II World War." In the College of Arts and Sciences, Social Science week featured an ethnographic exhibit of Agta and the presentation of "Pagdiriwang, Mga Koleksyon ng mga Awit para sa Sentenaryo." The Pahinungod program held a centennial symposium on various concepts and practices of Pahinungod with UP Manila being given the task of tracing the roots of the University to the Universidad Literaria in Malolos in relation to "100 Years of Voluntarism in the UP."

In celebration of women's month, various lectures discussed the indigenous concepts of gender in the Philippines and in Asia. A symposium on women's health featured outstanding women doctors led by Chancellor Perla Santos Ocampo.

The summer months were spent in "lakbay-aral" where UP Manila students and faculty joined field trips to historic places in Laguna, Cavite and Batangas. A trek to Mount Banahaw was lead by anthropologists in the Social Science department of the College of Arts and Sciences.

May, the month dedicated to labor, featured a photo exhibit entitled "A Tribute to the Workingman" sponsored by the Manila Studies Program. The William Henry Scott Memorial Lecture which highlighted Dr. Scott's scholarly interests in prehistory, labor and church history, was held in Sagada, Mountain Province.

The month of June celebrated the 90th founding of the University and foundation day activities included a book launching of various titles published by IPPAO, an exhibit on the history of various colleges, a research poster contest and an awards night to give recognition to outstanding achievers in UP Manila. Other foundation

day celebrations included those of the College of Medicine marking its 91st year, the 85th year of the College of Pharmacy, the 33rd year of the Institute of Ophthalmology and 22nd year of the School of Health Sciences. All celebrations featured a lecture on the history of the unit or the professions.

The month of July was marked by the silver jubilee of the College of Arts and Sciences where the professorial chair lectures included a discussion on indigenous dance forms and environment issues. A lecture on the history of public health in the Philippines was held at the College of Public Health.

August featured a discussion of the history of biology in the Philippines during Biology Week. A presentation of the History of Ophthalmology in the Philippines was also held at the Institute of the Ophthalmology at the Philippine General Hospital.

The 88th year of the founding of the Philippine General Hospital was celebrated with cultural activities, which included a symposium on hospital care. A symposium on constitutionalism and the Malolos Congress was also held at the College of Arts and Sciences.

A history of sports and games was featured in October with the holding of actual sports competition and demonstration. A lecture on 100 Daang Taon ng Palaruan sa Pilipinas was given and Palarong Pilipino featured indigenous games.

The student movement was highlighted during the month with a discussion on "100 Taon ng Pagbubuo at Pagkilos ng mga Mag-aaral," a photo exhibit on Student movement in the Philippines, a play on Lean and a concert of protest songs. The 36th founding of the College of Allied Medical Professions was marked with a lecture on the history of the profession and the college.

The festive month of December was marked by the UP Manila week-long campus Christmas celebration which included an interactive exhibit on the health professions, the launching of the Manila Literary Folio, pocket performances of UP Manila cultural groups like the "gandingan, anklung," the rondalla, the mime group, the faculty choir and a performance by the Philippine Philharmonic Orchestra. The year was capped by a systemwide Lantern Parade held at the Luneta with the parade of floats by the original colleges and a parade of lanterns of all UP campuses from Mindanao to Manila. The presentation revolved around UP history and traditions against a backdrop of Philippine history and culture. ■

PHILIPPINE GENERAL HOSPITAL

■ THE PHILIPPINE GENERAL HOSPITAL, the country's premier health institution, is also an autonomous unit under the wing of the University of the Philippines Manila. Established in 1910 initially as a division of the Bureau of Health, it was formally linked with the UP College of Medicine in 1914 by then Secretary of Interior Dean C. Worcester. On October 4, 1947, the PGH was transferred functionally to the University of the Philippines by EO 94. Seven years later, it was administratively separated from the UPCM by former President Ramon Magsaysay. With the creation of the UP Health Sciences Center (later known as the UP Manila) in 1977, PGH and all other health sciences units became administratively integrated under this structure.

As an integral part of the UP system, the PGH has set forth a mission to remain as a University hospital. It has likewise supported the University's three primary thrusts: training, research and service that synergistically complement and reinforce one another. This is in keeping with its vision of continuing as the leading national institution of health care for the Filipino people, with a more dynamic networking system with other governmental and non-governmental health organizations so that more beneficiaries can avail of its services.

For the past 88 years, the PGH continues to provide undisputed leadership for the Philippine health care delivery system. It remains as the only national referral center for tertiary care, providing direct and quality patient services to thousands of non-paying, underserved clients all over the country. It is also the Philippines' best resource for training and development of health professionals, providing the best learning environment for local and foreign health sciences students as well as sharing information and developing technologies through vigorous research efforts for the improvement of health care.

SERVICE

Through its service programs, the PGH has catered to the health care needs of its patients. In line with its effort to extend the best possible medical help to its clientele, PGH has the following health services:

- Women's Desk
- Eye instrumentation Clinic
- Family Planning Center
- Emergency Medical Services
- Poison Control and Information Service Unit
- Child Protection Unit
- Asthma Comprehensive Care Unit
- OB Gyne Cancer Detection Center
- Cancer Center
- National Volunteer Blood Donation Program

Intensive Care Units

- Burn Unit
- Hemodialysis Unit
- Perinatology Care Unit
- Surgical intensive Care Unit (SICU)
- Neurosurgical intensive Care Unit (NSSCU)
- High Risk Pregnancy Unit (IMU)
- Pediatric intensive Care Unit (PICU)
- Neurology intensive Care Unit (NICU)
- Adult intensive Care Unit (CENICU)
- Medical intensive Care Unit (MICU)

Major service components also include radiologic, diagnostic, therapeutic, laboratory, surgical procedures, nursing and other services (See Volume 6).

PATIENTS SERVED

Being a national government hospital, the Philippine General Hospital caters to thousands of Filipino patients daily, most of whom are indigents. In 1998 alone, 681,467 out-patients and 54,627 in-patients received medical attention from the hospital's various service areas (See Volume 6).

The Department of Pay Patient Services which accounts for 411 beds serves as a "buffer hospital" for the financially marginal patients — mostly government employees — as it offers affordable health services to the middle class. In support of the PGH thrusts, the DPPS continues to serve as both a role model for health care delivery and a revenue-generating component of the hospital whose income is used to defray the spiraling cost of health care of the charity patients.

Because of the enormous public trust among other factors, PGH beds are filled to capacity, oftentimes exceeding the authorized. To date, it has expanded to a total of 1, 555 beds to accommodate thousands that flock to it every year seeking the medical attention they need and deserve.

The PGH gives care not only to patients but to the caregivers as well. This is provided by the UP-PGH Health Service under the leadership of the Department of Family and Community Medicine. Because of the number of people it serves and the kind of services it renders, the UP-PGHHS is also a good training ground for resident physicians specializing in industrial Medicine.

In the last six years, the UPHS has seen over 30,000 PGH and UP Manila staff for consultation, more than 4,000 for their annual physical exams, 394 patients for admission to the infirmary, 3, 523 for referrals to other specialty clinics and over 4,800 for their PE for employment and promotion. On an annual basis, the unit actually catered to an about 7,620 (635 patients in a month) or a daily average of 29.

Catering as well to the largest component of the UP System's constituents: its students, the PGH Health Service has attended to a total of 32, 991 cases from 1993 to 1998. It has a yearly average of managing 5, 498.5 cases or seeing as many as 20 students per day despite limited human resources.

Referrals from other government agencies benefit likewise from the quality health care given by the University hospital. Last year alone, the public relations officer of the office of the PGH Director attended to a total of 1,492 referrals for various medical services (or a monthly average of 124) and facilitated 7,325 guarantee letters in 1998 alone.

UPDATING DIAGNOSTIC SERVICES

In line with the hospital's goal to improve its facilities for better health care, the following equipment were acquired for diagnostic purposes:

- Cardiac catheterization laboratory
- Electrophysiology laboratory for ophthalmological and ENT cases
- Spiral CT scan
- 2-D echo
- X-ray machine with C-arm

Once exclusively accessible to affluent patients, the services provided by these machines are now made available by PGH to the public sector. Such is an unparalleled effort in bringing high technology and quality medical care to more people.

SUPPORT SERVICES

Forming an integral part of the hospital's service programs are the following support services specifically designed to improve patients' quality of life:

- Domiciliary Services - the home care service program manned by the Department of Family and Community Medicine staff that aims to provide services and training of family members giving care to the chronically ill and terminally ill patients at home
- Hospice Care - three to five beds of the Cancer institute allotted to terminally ill and chronically ill patients needing supervision of health care providers. Aside from physiological care, psycho-spiritual services are also rendered unto these clients.
- Pain Management Center - Located at the Out-Patient Department, this center caters to the needs of patients in chronic and acute pain through the use of both modern and traditional medical techniques
- Rehabilitation Center - "Focusing on what is left, maximizing the individual to optimum levels of functioning" is a dictum of the Rehab Center. It attends to the needs of all medical and surgical conditions requiring rehabilitation through services such as speech, physical and occupational therapies, vocational counseling and retraining
- Alcoholics Anonymous - initially for alcohol-dependent employees, this pet project of the UP-PGH Health Service now welcomes referrals from the staff for patients needing psychological support and services on their way out of alcoholism
- Narcotics Anonymous - a counterpart of the Alcoholics Anonymous, this newly developed program aims to provide hope and help to chemically dependent individuals and their families through a series of counseling
- Livelihood Program for Cancer Patients - Done in coordination with celebrity cosmetologist Ricky Reyes, the "Look Good, Feel Good" project is designed to train patients and watchers on the art of cosmetology as a potential source of income
- Art Prescription - A series of art classes conducted by renowned painters of the local scene. Participated by UP employees for a fee, the proceeds of which are given to the Cancer institute for the benefit of PGH cancer patients
- Patient Education on HIV, Diabetes Mellitus, Nutrition and Care of Ostomies, Waste Management, National Voluntary Blood Donation Program - Video/Film showing of brief instructive clips on these topics to patients

which are given to the Cancer institute for the benefit of PGH cancer patients

- Patient Education on HIV, Diabetes Mellitus, Nutrition and Care of Ostomies, Waste Management, National Voluntary Blood Donation Program - Video/Film showing of brief instructive clips on these topics to patients and watchers at the charity wards. This is spearheaded by the Nursing Services.
- Education for children with long-term illnesses - Led by UP staff with training on special education (SPED), this center provides a DECS-accredited non-formal education for children who can't attend school due to long-term and debilitating illnesses
- Kubo ng Kaalaman sa Kalusugan - the newest patient education program from the DOPS, this project provides lectures and educational materials on common disease conditions and their management for free to patients and watchers at the OPD
- Nursing Clinic (Ostomy, Diabetes Mellitus) - another OPD project instituted by the Nursing Services, this aims to cater to specific education and nursing management needs of patients with ostomies and DM
- Botika ng Masa - A project coordinated with the office of the President through the Philippine Charity Sweepstakes office. This intends to provide a P2,500 assistance per bed per month on medicines for indigent PGH patients
- Crisis intervention Center - This multi-disciplinary team-led project is actually made up of three components: the Women's Desk, the Child Protection Unit and the Special Psychiatric Unit at the DPPS. The CIC attends to the medical and psychological care requirements of individuals who have been victims of abuse and other traumatic events
- Tropang Tropo Livelihood Program - A project that trains trophoblastic patients to initiate livelihood projects such as crocheting, food preparation, rosary-making, cross-stitching, etc. The proceeds of the sale of their products are used to support their diagnostics and chemotherapy
- Munting Paraiso - a play room equipped with good quality materials, also a psychotherapy center for chronically ill pediatric cancer patients; constructed in cooperation with Ricky Reyes
- Toxicology Center - a unit that utilizes the latest in management of toxicology cases. Coordinates with the National Poison Control Service

REFERRAL SERVICES

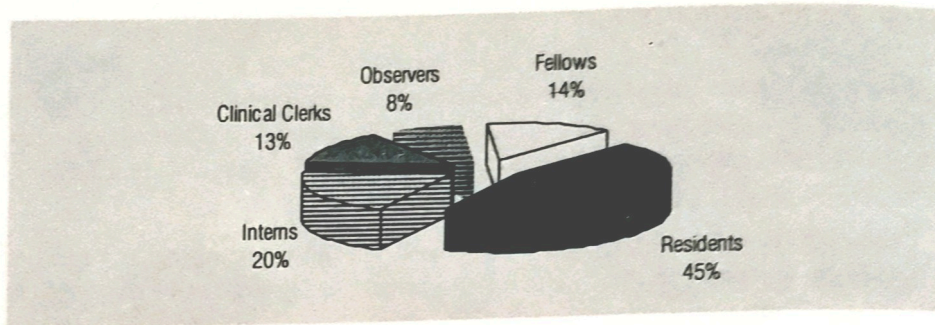
In an effort to improve quality of health care given to patients in the community, the PGH strengthened its referral system through forging links with government and non-government institutions as well as private and government hospitals. Just

TRAINING

True to its thrusts, the PGH plays a major role in training the different health professionals and students of the various health disciplines. Its clinical and non-clinical areas offer vicarious learning experiences for any individual intent on mastering the art of patient care and hospital management.

From 1993 to 1998, the hospital has provided excellent training to a total of 5,520 medical students, residents and fellows with over 500 (non-UP) observers in 1996 and 1997. ■

Figure 2-2 ■
Medical Students/Trainees,
1993-1998



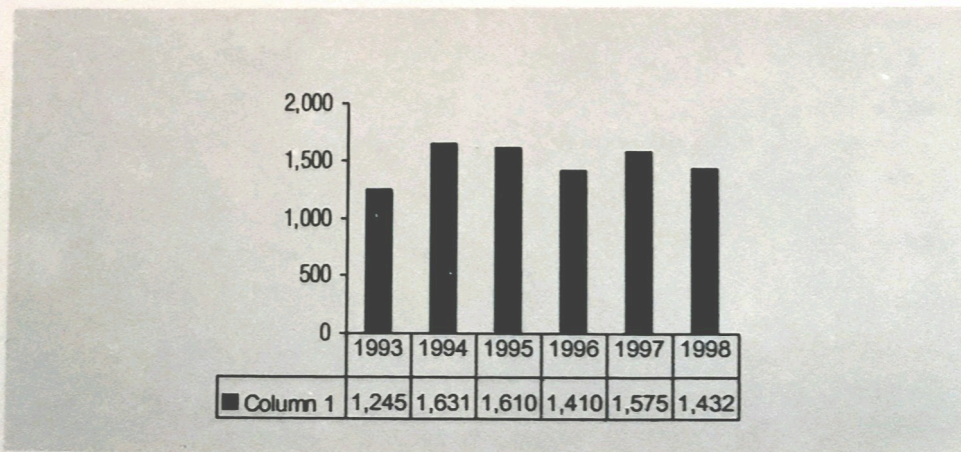
Likewise, thousands of trainees of other health sciences, benefitted from the tutelage of PGH, averaging about 1,483 students in a year (Figure 2-10).

Table 2-6 ■
Allied Health Science
Students and Trainees,
1993-1998

TYPES OF STUDENTS/TRAINEES	1993	1994	1995	1996	1997	1998
Nursing	883	1,144	1,171	643	756	893
Dietetic interns	2	1	2	-	-	-
Nutrition	-	29	82	57	76	54
Pharmacy interns	117	182	106	237	295	106
Clinical Pharmacy	31	34	5	79	-	72
Pharmacy Observers	13	17	15	111	-	-
Dental Externs	40	44	30	35	-	29
Dental interns	10	2	3	4	-	-
Postgraduate Medical Technology Externs	52	56	52	44	37	22
4th Year UP-CPH BSPH	30	46	42	47	100	69
Social Work Students	3	3	3	3	3	9
Physical Therapy Students	44	44	49	40	145	78
Occupational Therapy	8	18	18	18	36	66
Speech & Language Therapy Students	12	11	24	25	40	24
Psychology Students	-	-	8	13	4	-
Radiologic Technicians (Non-UP)	-	-	-	-	25	-
EKG Observers	-	-	-	30	-	10
EMT (Emergency Medical Technicians)	-	-	-	-	58	-
TOTAL	1,245	1,631	1,610	1,410	1,575	1,432

Source: Office of the Assistant Director for Health Operations, Annual Reports of concerned units

Figure 2-3 ■
PGH Allied Health Science
Students and Trainees,
1993-1998



A total of 3,060 resident physicians have been trained by PGH in the last six years, with a notable steady increase annually.

DEPARTMENT	1993	1994	1995	1996	1997	1998
Anesthesiology	41	45	53	58	57	51
DEMS					4	7
Family & Community Med	30	30	31	31	31	34
Laboratories	12	13	16	15	13	13
Medicine	61	88	89	95	96	96
Obstetrics-Gynecology	49	59	59	64	64	68
Ophthalmology	30	33	31	31	31	30
orthopedics	16	18	18	18	18	19
Otorhinolaryngology	24	24	24	23	23	24
Pediatrics	47	78	78	82	83	90
Psychiatry & Behavi Med	10	10	9	14	14	18
Radiology	*17	*20	21	25	22	25
Rehabilitation Medicine	11	12	12	12	16	12
Surgery	63	68	74	70	70	69
TOTAL	411	498	515	538	542	556

Table 2-7 ■
PGH Resident
Physician Trainees,
1993-1998

Source: Office of the Assistant Director for Health Operations, Annual Reports of Concerned Units

* includes Cancer Institute

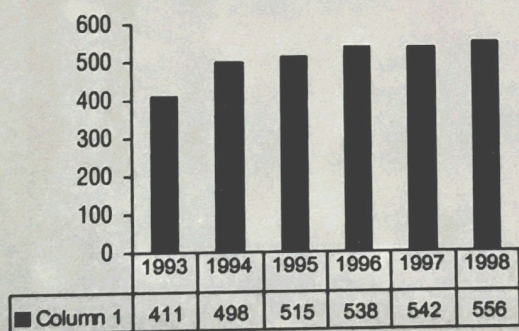


Figure 2-4 ■
PGH Resident Physicians,
1993-1998

Table 2-8 ■
 Number of PGH Fellows,
 1993-1998

DEPARTMENT	1993	1994	1995	1996	1997	1998
Anesthesiology	-	3	-	2	4	5
DEMS	-	-	-	-	-	2
Family & Community Med	-	-	-	-	-	-
Laboratories	-	-	-	-	-	-
Medicine	32	25	60	64	65	67
Obstetrics-Gynecology	10	6	22	26	31	36
Ophthalmology	-	-	2	3	3	4
orthopedics	-	1	3	2	-	-
Otorhinolaryngology	-	-	-	-	-	-
Pediatrics	4	-	28	42	51	64
Psychiatry & Behavl Med	-	3	5	5	5	2
Radiology	5	1	-	-	5	1
Rehabilitation Medicine	-	-	-	-	-	-
Surgery	2	1	-	-	-	-
TOTAL	53	40	120	144	164	181

Source: PGH Annual Reports, Annual Reports of Concerned units

Figure 2-5 ■
 PGH Fellows,
 1993-1998

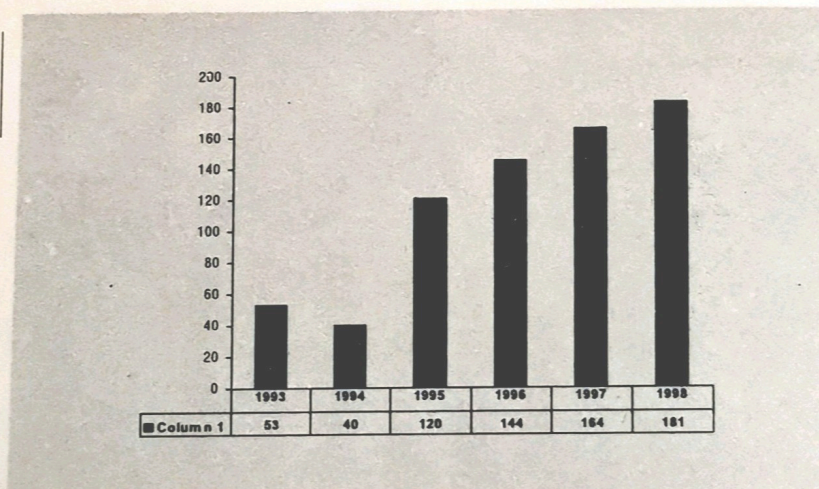


Table 2-9 ■ PGH Residents and Fellow Graduates, 1993-1998

DEPARTMENT	1993		1994		1995		1996		1997		1998	
	R	F	R	F	R	F	R	F	R	F	R	F
Anesthesiology	14	-	14	3	16	-	17	1	19	7	16	2
Family & Community Med	13	-	7	-	10	-	13	-	10	-	12	-
Laboratories	3	-	-	-	4	-	3	-	2	-	3	-
Medicine	17	32	26	25	27	29	26	27	28	34	32	25
Obstetrics-Gynecology	13	12	14	9	14	11	17	14	15	17	16	21
Ophthalmology	12	-	13	-	9	-	11	3	13	3	8	2
orthopedics	5	-	5	1	5	-	-	-	4	-	5	1
Otorhinolaryngology	6	-	5	-	7	-	6	-	5	-	6	-
Pediatrics	24	4	-	-	-	-	28	9	24	13	26	23
Psychiatry & Behav Med	4	-	6	3	3	3	4	2	4	5	4	-
Radiology	4	2	4	1	7	-	9	3	6	7	2	1
Rehabilitation Medicine	3	-	4	-	3	-	4	-	5	-	2	-
Surgery	7	9	13	6	15	-	16	-	14	7	10	7
TOTAL	122	59	127	61	145	43	148	59	152	93	142	82

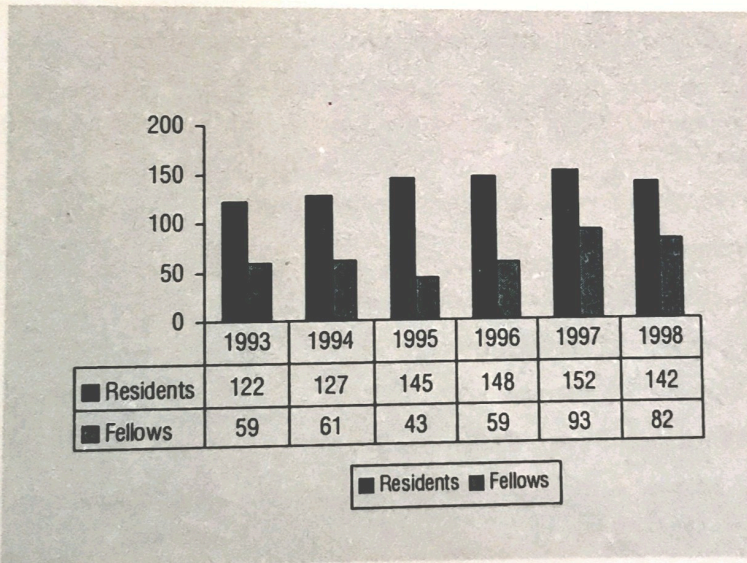


Figure 2-6 ■ PGH Residents and Fellow Graduates, 1993-1998

ON INFRASTRUCTURE

From 1993 to 1998, new structures and facilities were opened to complement the hospital's health care delivery system. In 1995 alone, the following major facilities were opened:

- a. Cancer Education / Information Center, opened on January 16, 1995
- b. Philippine Radiation Science Museum, opened on October 10, 1995
- c. Newly renovated Pulmonary Laboratory, opened on October 3, 1995
- d. Burn Unit, opened on December 6, 1995

One of the most significant infrastructure projects in 1997 was the construction of the PGH Spine Unit designed to provide optimum treatment and care to patients suffering from vertebral column and spine disorders. The four-storey complex is the first and only one of its kind in the Philippines. Other projects undertaken during the year were the Organ Transplant Unit, the Open Heart Surgery Unit, and the Cardiovascular Catheterization Laboratory to provide patients with the most advanced diagnostic facilities and treatment expertise possible.

In 1998, the construction of the two-storey Spine Unit building, Service Wing, Department of orthopedics was finished. Other projects finished during the year were the renovation of Psychiatry Library and the Child Protection Unit which were constructed through the assistance of generous donors/benefactors.

Other ongoing projects are the construction of the Computer Building, the renovation of the Nurses' Home, Dorms 1 and 5, DEMS and OBAS and the expansion of the DOPS.

In 1998, the following facilities were inaugurated:

- a. Medical ICU
- b. Cardiac Catheterization Laboratory
- c. Special Psychiatric Unit
- d. Director's Conference Hall
- e. Employees' Fitness Center

EXTENSION AND OUTREACH TRAINING PROGRAMS

The extension programs of PGH cover a wide range of community-oriented projects. Most were funded by the hospital while some are financed by the department/unit involved. Some were sponsored by other pharmaceutical and health institutions, the DOH, NGOs, and the Ugnayan ng Pahinungod-Manila.

Another type of extension service rendered by the hospital consists of seminars, workshops, conferences, fora and the like.

FUNDING SUPPORT

Sources of funds for PGH include government subsidy, hospital income, balance of prior year's income, donations, sale of drugs—RF and reprogrammed savings. Of these, the national budget is considered the largest source. The highest percentage of the PGH budget goes to Personal Services, followed by Maintenance and Operating Expenses (MOOE) and Equipment, Building & Structure Outlay, respectively.

Table 2-10 ■ Inhouse Surgical Mission, 1993-1998

CASES	1993	1994	1995	1996	1997	1998	TOTAL
Herniotomy	48	35	34	21	41	42	221
Hydrocoelectomy	0	0	0	3	0	0	3
Repair of Meningocele	15	3	9	16	18	20	81
Hemorrhoidectomy	0	32	25	16	34	57	164
orthopedic Surgeries	0	0	0	0	3	9	12
Adult Hemiorrhapy	39	33	39	29	42	29	211
Thyroidectomy	12	24	19	19	21	27	122
Cataract Operation	57	55	46	0	0	0	158
Retina Operation	0	0	0	10	13	13	36
Panendoscopy	0	0	0	0	0	10	10
Cheiloplasty	15	16	7	7	18	3	66
Mod Rad Mastectomy	0	13	0	0	14	20	47
Excision, Breast Mass	0	37	16	14	5	0	72
Polypectomy Ethmoidectomy Antrostomy	0	0	0	0	6	0	6
Circumsicion	0	51	32	0	0	0	83
TOTAL	186	299	227	135	215	230	1292

Table 2-11 ■ Financial Resources, 1993-1994

SOURCES OF FUNDS	1993	1994	1995	1996	1997	1998
Gov't Subsidy	365,505,000	574,419,668	639,452,449	713,974,048	856,819,742	956,359,000
Hospital income	189,580,194	111,701,390	126,886,932	135,499,220	152,513,393	157,818,334
Bal of Prior Year's income	-	-	20,277,390	14,330,322	4,644,552	9,384,935
Donations	-	26,358,727	36,327,019	80,640,202	37,284,667	40,009,977
Sale of Drugs - RF	-	6,000,000	6,000,000	6,080,000	6,000,000	3,000,000
Reprogrammed Savings	-	13,400,942	15,237,099	-	27,368,434	75,146,315
Unexpected Allotment (1994)	-	-	-	-	-	15,000,000
TOTAL	555,085,194	731,880,727	844,180,889	950,443,792	1,084,630,778	1,256,718,561

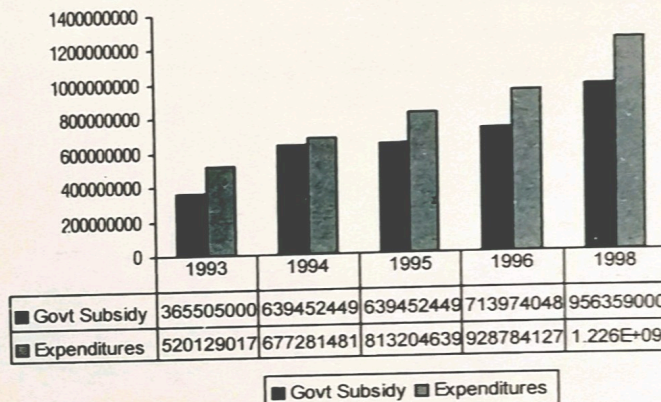
Source: Accounting Services Division

Table 2-14 ■ PGH Expenditures, 1993-1998

USES OF FUNDS	1993	1994	1995	1996	1997	1998
Personal Services	7219,173,768.37	329,032,189	400,563,210	526,521,263	675,636,205	787,754,346
MOOE	259,955,249.00	275,376,092	311,522,269	305,898,823	333,983,837	414,924,345
Eqpt Bldg & Struct Outlay	41,000,000.00	72,873,200	101,119,160	96,364,041	47,876,328	17,587,871
TOTAL	520,129,017.37	677,281,481	813,204,639	928,784,127	1,057,495,370	1,220,266,562

Source: Accounting Services Division

Figure 2-7 ■
Analysis of Government
Subsidy vs. Actual
Expenditures,
1993-1998



The variance between the available government subsidy and expenditure is funded by other sources from donations, hospital income, balance of prior year's income, sale of drugs, revolving funds, and reprogrammed savings.

SOURCES OF DONATIONS

PGH continues to maintain strong partnerships with local and international donor communities that allow it to bring quality health care within reach of Filipino patients. Among the other sources of PGH funds are:

- donations from JICA, WHO, PCSO, PAGCOR and private individuals and organizations
- CDF from congressmen

HUMAN RESOURCES

Performing key roles in the hospital's service arena are the medical, nursing, paramedical and administrative staff who, all in their own capacities, contribute to the attainment of PGH's institutional goals. The average staff complement from 1993 to 1998 was 3,521, with the Nursing Service having the biggest number of staff among all categories.

CATEGORY	1993	1994	1995	1996	1997	1998
Medical	555	696	590	596	613	629
Nursing	1,371	1,391	1,423	1,427	1,506	1,507
Paramedical	321	683	315	316	359	356
Admin/REPS	1,106	675	1,049	1,199	1,205	1,241
TOTAL	3,353	3,445	3,377	3,538	3,683	3,733

Table 2-13 ■
PGH Staff Complement,
1993-1998

Source: Personnel Services Division

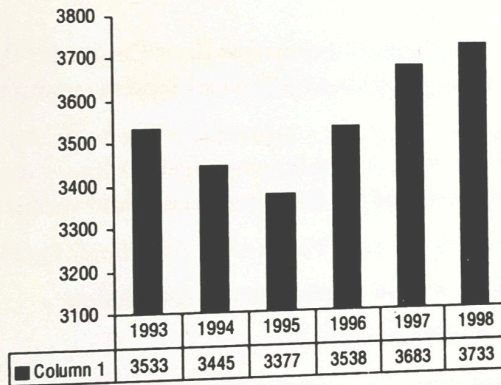


Figure 2-8 ■
Total Staff Complement,
1994-1998

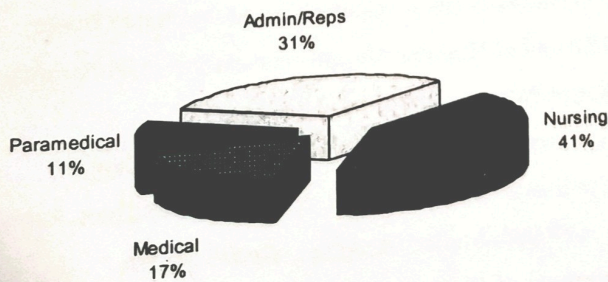


Figure 2-9s ■
Distribution of PGH
Personnel (Average),
1994-1998

ACCOMPLISHMENTS THROUGH THE YEARS

1995

- PGH DONATES old but functional hospital beds, chairs, and equipment to other government hospitals that are in dire need of these.
- UP-MUSCULOSKELETAL TUMOR UNIT (UP-MUST UNIT), DEPARTMENT OF ORTHOPEDICS - The first multidisciplinary team established for the treatment of extremity and spine tumors involving the department of orthopedics, Medical Oncology, Pathology, Radiation Oncology and Radiology, Pediatrics, Rehabilitation Medicine, Anesthesia and Pain, Psychiatry, and Nursing.
- MONTHLY BLOODLETTING ACTIVITY at the PGH to contribute to the need for blood by its patients
- MONTHLY LECTURE SERIES
- MONTHLY BALLROOM DANCING - the administration saw the need for socialization among its staff. The activity fosters camaraderie and serves not only as a respite from the routine workload but also healthy form of exercise.

1996

- First Emergency Medical Technicians Basic Course for the ambulance crew of the PGH Emergency Medical Services System conducted in December
- Adopt-a-Garden Project was initiated in line with the Clelan and Green Program of the PGH. The following organizations / units were invited to act as foster parents of the different gardens and vacant spaces at PGH:
- PGH Auxiliary Board and Friends of PGH - inner Quadrangle
- Sigma Delta Phi Alumni - Chapel Garden Association
- Linkod ER - Garden around ER
- Upsilon Fraternity - Garden around Bloodbank
- Mu Sigma Phi - Quadrangle between the Dept. of Medicine and Dept. of Surgery
- PGH Nurses Association - Garden around the Nurses Home
- PGH School of Nursing Alumni Association PGH Nursing Service
- Phi Kappa Mu - Garden around OB-Gyne
- Dietary Department - Garden near the Dietary Dept.
- UP Los Banos - Herbal garden, main block c/o Chan. Ruben Villareal
- Dept. of Rehabilitation Medicine - Rehab garden
- Department of Pediatrics - Garden beside the SPED

- Use of the **Chronolog ID** was implemented. An employee's ID is provided with an assigned barcode which is inserted in the Chronolog computerized time recorder in lieu of the bundy clock.
- **Doctors' and Employees' Lounge** located at the second floor facing the front lobby area for rest and recreation of hospital personnel.

1997

- The first Spine Center in the Philippines allied with the PGH Department of orthopedics had started initial stage of its construction. This has been made possible through the assistance of Senator Alberto G. Romulo and Congressman Rolando R. andaya.
- The Child Protection Unit for abused children in cooperation with the Department of Social Welfare and Development, Department of Justice, National Bureau of investigation and the Philippine National Police.
- The First First Aid Course for Manila Barangay Tanods conducted by the Department of Emergency Medical Services.
- Illzarov and Limb-Lengthening Unit, Department of Orthopedics
- The setting up of a PGH Archives and Library

ATTACHMENTS

APPENDIX 1

NIH-Funded Researches

PROJECT TITLE	PROPONENT	DURATION	YEAR COMPLETED
Biotechnology			
Characterization, cloning, sequencing and expression of egg antigen of <i>Schistosoma Jap</i>	Tiu, WU	1995-97 3-years	Jan 1999
Genetic characterization of virulent isolates of <i>Plasmodium falciparum</i>	Rivera, PT	1995-97 3-years	Nov 1998
Genetic and antigenic characterization of HIV-1 isolates from commercial sex workers and overseas contract workers from Metro-Manila	Barzaga, NG	1995-97 3-years	Jul 1997
Laboratory and field studies on the biological control potential of <i>Culicinympes</i> sp against selected medically important mosquitoes	Monzon, RB Panter C, etc	1995-97 3-years	Dec 1996 terminated
Development of Anti-HCV agglutination assay	Domingo, EO; Lim, EC; Lansang, MA	1995-97 3-years	
Development of an alternative test for the diagnosis of DHF using various host cell-systems in vitro	Madraso, ED	1996-99 3-years	deferred
Development and optimization of some promising plant products as broad spectrum mosquito larvicides	Oliveros, MB; delas Llagas, L	1996 1-year	Dec 1997
Development of Monoclonal antibodies against human transferrin for use in the immunoassay detection of human serum transferrin	Leano, MB	1996 1-year	Dec 1998
Screening of indigenous plant products to detect bacteruria compared to DIPSTICK and routine urinalysis	Vergeire-Dalmaclon, G	1996 1-year	Nov 1997
Preparation of measles viral antigens and optimizing serological tests for detection of measles antibodies	Chan, VF; Bravo L; Lobo, J	1996 1-year	deferred
Development of TSH assay for screening congenital hypothyroidism	Padilla, C; de Guzman T; Domingo C	1996-97 2-year	Jan 1999
Laboratory and field studies on the biological control potential of <i>Culicinympes clavisporus</i> , <i>Bacillus thuringensis</i> and <i>Bacillus sphaericus</i> for control of mosquitoes	delas Llagas, L	1996-98 3-years	Ongoing
Biotechnological development of mosquitoicidal microorganisms <i>Culicinympes clavisporus</i> , <i>Bacillus thuringensis</i> and <i>Bacillus sphaericus</i>	Tobias M	1996-98 3-years	Ongoing
Preparation of 30Kda antigen of mycobacterium tuberculosis for immunodiagnosis	Montoya, J; Ang C.	1996-97 2-year	Ongoing
The immunomodulating effect of the crude extract from <i>Momordia charantia</i> and <i>Tinospora crispa</i>	Reynoso, CB	1997-98 2-years	Ongoing
Development of serotyping reagents for the detection of cholera species	Tobia MC Barzaga NG	1997- 99 3-years	Ongoing
Availability of bacillus subtilis spores for use in population screening for phenylketonuria	Bungay A Padilla C	1997 1-year	
Field evaluation of formulated avocado extract against mosquito larvae in the Phil	delas Llagas L	1997 1-year	

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PROJECT TITLE	PROPONENT	DURATION	YEAR COMPLETE
Purification, characterization, cloning, sequencing and expression of protease from <i>S. japonicum</i> egg	Leonardo LR Tiu WU	1998-00 3-years	Ongoing
A PCR study of the cysteine proteinase gene of <i>Phil</i> isolates of <i>P. falciparum</i>	Rivera PT	1998-99 2-years	Ongoing
Development of bacterial oral vaccine in edible tissues of transgenic plants	Barzaga N	1998-00 3-years	Ongoing
Development of botanical molluscicides against <i>Oncomelania hupensia quadrasi</i>	Leonardo L	1998-00 3-years	Ongoing
Immune recognition of <i>S. japonicum</i> vaccines by infected sera from different human population in endemic areas in the Phil	Ramirez BL	1998 1-year	Ongoing
Inst of Clinical Epidemiology			
Usefulness of intraoperative monitoring in tertiary hospital in Metro Manila	Villacin LC Punzalan FR Dans AL	1997 3 mos	Deferred
Open labeled randomized controlled trial and economic evaluation of selected anti-microbial regimens in the OPD treatment of community acquired pneumonias in adults	Tan-Torres T	1998-99 2-years	Ongoing
Inst of Ophthalmology			
A topical preparation of heavy metal for the prevention and treatment of corneal infection	Cadiz MH	1996 1-year	Jul 1998
PGH eye injury registry	Tuano P Salceda S Nanagas J	1996 1-year	Dec 1997
Predisposing factor to age related macular degeneration in humans	Nicolas, MG Noche RR Tuano PR	1997-98 2 years	Ongoing
Risk factor for primary open angle glaucoma in Filipinos: A Metro Manila case control study	Khu PM	1998-99 2-years	
Inst of Human Genetics			
Prevalence of birth defects among newborns	Padilla C Santos Ocampo	1996 1-year	Ongoing
Newborn screening of metabolic disorders (phenylketonuria, homocystinuria, galactosemia)	Padilla C	1997 1-year	Ongoing
Characterization of mutation in the dystrophin gene among Filipino Duchenne and Becker Muscular Dystrophy patients	Cutlongco EM	1998 1-year	
Cytogenetic analysis of solid tumors in children (Wilms, retin-blastoma, osteosarcoma)	Padilla CD	1998 1-year	
Inst of Pharmaceutical Sciences			
Studies on the hypercholelemic activity of <i>Zizyphus jujuba</i> (mansanitas)	Oliveros M	1997 1-year	Ongoing

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PROJECT TITLE	PROPONENT	DURATION	YEAR COMPLETED
Preformulation studies on local materials for use as excipients: Waxes	Gutierrez LB	1997 1-year	ongoing
Preformulation studies on local materials for use as excipients: Pigments	Gutierrez LB	1997 1-year	ongoing
Preformulation studies on local materials for use as excipients in dosage formulation: 5 Pigments	Gutierrez L	1998 1-year	
The antipruritic action of Glinicidia sepium: Formulation of kakauati lotion (Phase 1)	Gutierrez L	1998 1-year	
Zerumbone from Zingiber Zerumbet as antispasmodic	Oliveros MB	1998 1-year	
Bioefficacy, toxicological and environmental effects of avocado powder as mosquito larvicide	Oliveros MB	1998 1-year	
Toxicity studies on Zizphus jujuba: A potential hypocholesterolemic agent	Oliveros MB	1998 1-year	
Computer Research & IT for Health			
The study group on Y2K relevance in health	Marcelo A	1998 4-months	ongoing
The study group on standard for health informatics	Marcelo A	1998 6 months	ongoing
Medical Bioengineering			
Hand-sewn endoluminal suture vs metallic endovascular stent effects on the distal graft anastomosis	Quintos R	1998 1-year	
Child Health & Development			
A socio-epidemiological study of child abuse in Filipino families	Ramiro LS Santos Ocampo Madrid B	1996 1-year	Jul 1998
Incidence, clinical and micro biologic characteristics of nosocomial infection in children	Ong-Lim AL	1997 1-year	Dec 1998
A qualitative study of school children's food preference in selected schools in Metro Manila	Ong R	1997 1-year	Jun 1998
Human leukocyte Class II antigens in Filipino pediatric patients with rheumatic heart disease	Ortiz, E	1998 6 months	
A double blind randomized placebo controlled trial on the use of recombinant human granulocyte colony stimulating factor for the prevention and control of sepsis among very low birthweight infants	Mantaring JB	1998 1-year	
The Filipino mother's diet and their lactational performance	Agrasada GV	1998 1-year	
Human Reproduction			
Immunologic Disorders			
Identification and characterization of local house dust for allergenic properties	Abong J	1998 1-year	
Infectious Diseases			
Field epidemiological studies on malaria in a low endemic area in the Philippines	Belzario VY Cruz AC delas Llagas LA Rivera PT	1996 1-year	1997

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PROJECT TITLE	PROONENT	DURATION	YEAR COMPLETED
Antimicrobial and insect growth regulatory activity evaluation of marine organisms	Maini H	1996 1-year	1998
Immunoflourescent antibody for serologic diagnosis of invasive amoebiasis	Rivera P Nolasco ET Sio J	1996 1-year	1998
Information Center for Disease Control Feasibility of a computerized hospital based information system for injury surveillance	Sarol J Maramba I	1997 1-year	ongoing
Mental Health Long term effects of separation on the children of overseas contract workers	Banaag CG Querejero MM Calma NM	1996 1-year	1997
Effectiveness of critical incident stress debriefing as a psycho-social intervention for disaster victims	Ignacio L Ronquillo E	1996 6-months	1997
Assessing psychosocial factor of overseas Filipino women workers Occupational/Environmental Health	Kuan L Anonuevo C	1996 1-year	1998
Assessment of health risks from the use of hazardous substance in the workplace	Vitasa BC	1997 1-year	ongoing
Oncology Establishment of musculo- skeletal tumor team	Wang E	1996 1-year	1997
Limb salvage vs amputation for aggressive and malignant tumors around the knee	Wang E	1996 1-year	1998
Epidemiologic, clinical and genetic predisposition of Filipino breast cancer patients of PGH	Villalon A Tanael S Reyes M	1997 1-year	ongoing
Bone transplantation (allograft) in limb saving surgeries for extremity bone tumors	Wang E	1998 1-year	
Tru-cut biopsy in musculoskele-tal tumors: Validation and eco-nomic evaluation study	Wang E	1998 1-year	
Aging & Degenerative Diseases The long term effects of pulmo nary rehabilitation on stable COPD patients	Canizares L	1996 1-year	ongoing
Profile and functional outcome of post-stroke geriatric patients in the PGH setting	Mojica JA	1998 1-year	
Prevention & Rehabilitation of Disabilities Prevention and early detection of physical disabilities and learning difficulties among Grade 1 pupils in Montalban, Rizal	Magallona, L	1995-2000 5-years	ongoing
Acoustic and physiological correlation of socially accept able speech in the cleft palate speakers	Mojica GD	1997 1-year	ongoing
Parameters for normal voice production among Filipinos	Mojica GD	1997 1-year	ongoing

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PROJECT TITLE	PROPONENT	DURATION	YEAR COMPLETED
Community Health & Development Towards rational drug use in the community: The role of the rural health midwife in purok-based activities	Sia IC	1996 1-year	1998
Development of a model for an interdisciplinary community based program	Mencias C	1997 18 months	ongoing
Social & Humanistic Studies in Health Attitudes of Filipino medical teachers towards teaching	Mencias, C	1995 1-year	1996
Survey of clients' preference of service providers' characteristics in OB-Gyn	Festin MR	1996 8-months	1998
Impact of water pollution in the quality of life of Navotas fore shore residents	Torres C	1997 1-year	ongoing
Culture sensitivity training for health professionals in indigenous communities	Castillo F	1997 1-year	ongoing
Complementary & Traditional Medicine Study on the knowledge, attitudes and practices of mothers from three selected communities in Metro Manila on the use of traditional medicine	Sia IC Santos Helen	1997 1-year	ongoing
Ethnopharmacologic documentation of selected Philippine ethnolinguistic groups: the Bugkalot people of Nueva Viscaya and Quirino	Sia IC	1997 1-year	ongoing
Ethnopharmacologic documentation of selected Philippine ethnolinguistic groups: the Mangyan (Iraya) people of Mindoro Island	Sia, I	1998-99	
Ethnopharmacologic documentation of selected Philippine ethnolinguistic groups: the Mangyan (Buhid) people of Mindoro Island	Santiago A	998-99	
Ethnopharmacologic documentation of selected Philippine ethnolinguistic groups: the Mangyan (Tadyawan) people of Mindoro Island	Rubite R	1998-99	
Ethnopharmacologic documentation of selected Philippine ethnolinguistic groups: the Mangyan (Alangan) people of Mindoro Island	Lacdan N	1998-99	
Ethnopharmacologic documentation of selected Philippine ethnolinguistic groups: the Mangyan (Hanunuo) people of Mindoro Island	adilla S	1998-99	
Health Policy & Management			
Financing quality health care in the Philippines	Mella MP	1996 -year	Deferred
Health policy and strategic planning program :RTD	Lorenzo M	1997 1-year	ongoing
Health human resource supply and demand: The nursing dilemma	Corcega T Lorenzo M Yabes JJ	1997 1-year	ongoing
Phil Health Factbook	Lorenzo FM	1998	

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PROJECT TITLE	PROPONENT	DURATION	YEAR COMPLETED
HPSPP-RTD project	Lorenzo, ME Mabunga SY	1998 1-year	
Health human resource dev: The career profile of the dental graduates in the Phil	Cruz-Lago L	1998 1-year	
Health human resource supply and demand: The pharmacy profession	Cruz IR	1998 1-year	
Nursing Development			
Oral Health			
Regional & International Health			
Special project			
Phil Index Medicus Abstract 1991-1994	Rosal, R	1995-96 2-year	1997

APPENDIX B

Books, Monographs, and Occasional Papers

COLLEGE OF ALLIED MEDICAL PROFESSION

Author/Editor	Year	Complete Title	Place of Publication	Name of Publisher
Magallona, Ma Lucia M	1997	Manual for Community based Rehabilitation Workers	Quezon City, Philippines	Sentro ng Wikang Filipino
Cabatan, Ma Concepcion; Hocson, Ma Cecilia P; Issac, Cynthia V and Mendoza, Teresita	1997	Occupational Therapy Reviewer	Manila, Philippines	C&E Publishing Co
Magpili, Policarpia; Isaac, Cynthia V; Villegas, Susan B	1995	Module II: The Physically Impaired Passenger Guidebook on Assisting Disabled and Elderly People who Travel	Quezon City, Philippines	National Council for the Welfare of the Disabled Persons
Marzan, Jocelyn CB	1994	Phonological Process Analysis	Manila, Philippines	
Isaac, Cynthia V	1993	Handbook of Information	Makati City, Philippines	Council of Health Agencies of the Philippines
ED: Dr A Trinidad Damian, Guillermo; Magpili, Policarpia; Isaac, Cynthia; Villegas, Susan; Cabatan, Ma Concepcion	1993	Rehabilitation for Patients with Rheumatism: A Reference Guide for the Filipino Primary Health Care Physician and Other Health Care Workers	Manila, Philippines	CAMP-UP Manila

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COLLEGE OF ARTS AND SCIENCES

Author/Editor	Year	Complete Title	Place of Publication	Name of Publisher
Rosario, Rubite, et al	1997	AGHAM PANGKALIKASAN II	Quezon City, Philippines	Sentro ng Wikang Filipino
Mangubat, Benjamin R	1997	Kasaysayan ng Daigdig	Quezon City, Philippines	New Horizon Publication
Mangubat, Benjamin R	1997	Kasaysayan ng Kabihansang Asyano	Quezon City, Philippines	New Horizon Publication
Tayag, Josefina G	1997	The Impact of the General Education Program on Health Professionals	Manila, Philippines	IPPAO-UPM
de Ungria, Ricardo; Beringuela, Adele; Gavino, Pacita	1996	Cultural-Humanistic Values of Doctors in Three Hospitals in Manila: Towards a Relevant and Humanistic Program in CAS, UP Manila	Manila, Philippines	IPPAO-UPM
Hallare, Arnold	1996	Histolohiya ng Hayop: Manwal panlaboratoryo	Quezon City, Philippines	Surian ng Wikang Filipino Press
Herrera A & Amparo E Mangubat, Benjamin R	1996	Kabishansang Asyano sa Takbo ng Panahon	Quezon City, Philippines	New Horizon Publication
Imperial, Reynaldo H	1996	Leyte (1898-1902): The Philippine-American War	Quezon City, Philippines	ORC-UP Diliman
Mangubat, Benjamin R	1996	World History	Quezon City, Philippines	New Horizon Publication
Rosario, Rubite & Yap, Audwin	1996	Zoology 10 Laboratory Manual	Manila, Philippines	IPPAO-UPM
Rebullida, Ma Lourdes	1995	Conquering Politico-Administrative Frontiers, Essays in honor of Raul P de Guzman	Quezon City, Philippines	UP Press
delos Reyes, Josefina J	1995	Introductory Biology: Principles and Processes	Manila, Philippines	IPPAO-UPM
Betan, Ariel	1995	Manwal sa Pagbubuo at Pagpapatibay ng Koalisyon		Freedom from Debt Coalition
Boncan, Celestina	1995	Remembering the Cavite Mutiny of 1872	Makati City, Philippines	GB de los Reyes Jr Foundation
Rebullida, Ma Lourdes	1993	Alternative Financing Scheme for Housing by Community-based Voluntary and NGOs	Quezon City, Philippines	PIDS
Rebullida, Ma Lourdes; Mangubat, Benjamin; Abadingo, Lourdes	1993	The Practice of Research	Quezon City, Philippines	Instructech
Mangubat, Benjamin R	1993	World History Diary	Quezon City, Philippines	Instructech

COLLEGE OF DENTISTRY

Author/Editor	Year	Complete Title	Place of Publication	Name of Publisher
Magtanong, Danilo	1998	Laboratory Manual for Prosthodontics 31B	Manila, Philippines	IPPAO-UPManila
Lago, Leonor D	1998	Morpolohiya at Pisyolohiya ng Ngipin	Quezon City, Philippines	Sentro ng Wikang Filipino
Medina, Vicente III	1997	Laboratory Manual for Operative Dentistry 12B (cavity preparation)	Manila, Philippines	IPPAO-UPManila
Macasaet, Avelino	1997	Manual on the Class 2 Cavity Preparation for Amalgam	Manila, Philippines	IPPAO-UPManila

COLLEGE OF NURSING

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Author/Editor	Year	Complete Title
	1994	Instructors Manual on Family Planning
Cruz, Lourdes	1994	Reference Manual on Family Planning for Midwifery
Kuan, Letty	1993	Ecological Aspects of Community Health Nursing
Balabagno, Araceli	1993	Essence of Caring
Laurente, Cecilia	1993	Guide to EKG Measurement for Paramedics
Danao, Leda	1993	Guideline to Thesis/Dissertation Writing for UPCN
Kuan, Letty	1993	Manual of Operations (ENHR)
Maglaya, Araceli	1996	Ang Pag-aaruga sa mga Taong May-edad na
Tungpalan, Luz	1997	Nursing Practice in the Community
Kuan, Letty	1997	Promises to Keep: Return to Nursing
Kuan, Letty	1993	Understanding the Filipino Elderly

COLLEGE OF NURSING - DISTANCE EDUCATION MODULES (MANILA: UPOU)

Author/Editor	Year	Complete Title
Kuan, Letty	1997	N-207 Autonomy
Kuan, Letty	1997	N-207 Beneficence
Anonuevo, Cora	1997	N-207 Client-Nurse Environment Dynamics
Abaquin, Carmencita	1997	N-207 Client-centered Nursing Theories
Laurente, Cecilia	1997	N-207 Client-centered Nursing Theories
Mejico, Merle	1997	N-207 Crisis Intervention Theory
Mejico, Merle	1997	N-207 Developmental Theories
Kuan, Letty	1997	N-207 Foundation and Principles of Bioethics in Nursing
Anonuevo, Cora	1997	N-207 Gender Concepts and Issues in Health
Kuan, Letty	1997	N-207 Justice
Tuazon, Josefina	1997	N-207 Learning Theories and Related Theories
Balabagno, Araceli	1997	N-207 Nurse-Client Dynamics
Corcega, Thelma	1997	N-207 Nursing Theories: Conceptual Framework
Kuan, Letty	1997	N-207 Professional-Patient Relationship
Kuan, Letty	1997	N-207 The Beginning of Life
Dones, Luz Bar	1997	N-207 The General Systems Theory
Tuazon, Josefina	1997	N-207 Theories of Change
Velazco, Gundelina	1997	N-207 Theories/Models of Communication
Barcelo, Teresita	1997	N-231 Nursing Care of Clients with Postpartum Complication
Lao-Nario, Ma. Brigette	1997	N-231 Nursing Care of Clients with Disorders in Labor
Barcelo, Teresita	1997	N-231 Nursing Care of Pregnant Clients with Infection
Hernandez, Ma. Teresita	1997	N-231 Nursing Assessment of Newborn and the Family
Lao-Nario, Ma. Brigette	1997	N-231 Nursing Care of Clients with Substance Abuse
Lao-Nario, Ma. Brigette	1997	N-231 Nursing Care of Clients with Affective Disorder
Barcelo, Teresita	1997	N-231 Nursing Care of Clients with High Risk
Lao-Nario, Ma. Brigette	1997	N-231 Nutrition-Metabolic Problems in Pregnancy
Lao-Nario, Ma. Brigette	1997	N-231 Oxygenation Problems in Pregnancy
Danao, Leda	1997	N-231 Research: Nursing Care of Newborn
Danao, Leda	1997	N-231 Research: Nursing Care of FMU
Lao-Nario, Ma. Brigette	1997	N-231 Teaching Clinical Decision-making
Lao-Nario, Ma. Brigette	1997	N-231 Teaching in Nursing

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Ballester, Amor	1997	N-232 Adolescent Pregnancy
Ballester, Amor	1997	N-232 Alteration in Fluid and Electrolytes
Ballester, Amor	1997	N-232 Alteration in Nutrition and Metabolism
Ballester, Amor	1997	N-232 Alteration in Perception and Coordination
Ballester, Amor	1997	N-232 Alteration in Protective Mechanism
Ballester, Amor	1997	N-232 Child Abuse
Hernandez, Ma. Teresita	1997	N-232 Child Health Screening and Assessment
Vidal, Victoria	1997	N-232 Child Labor
Vidal, Victoria	1997	N-232 Children in Situation of Armed Conflict
Ballester, Amor	1997	N-232 Common Health Problems in Children
Vidal, Victoria	1997	N-232 Growth and Development
Gavino, Ma. Irma	1997	N-232 Interventions for Health Promotion
Ballester, Amor	1997	N-232 Psychosocial Impact of Illness
Ballester, Amor	1997	N-232 Psychosocial Interventions
Vidal, Victoria	1997	N-232 Researches in the Care of Children
Ballester, Amor	1997	N-232 Streetchildren
Vidal, Victoria	1997	N-232 The Child as Member of the Family
Barcelo, Teresita	1997	N-299 Choosing the Research Design
Barcelo, Teresita	1997	N-299 Communicating and Utilizing Nursing Research
Barcelo, Teresita	1997	N-299 Critiquing a Study
Velazco, Gundelina	1997	N-299 Data Analysis and Interpretation
Barcelo, Teresita	1997	N-299 Designing and Implementing a Data Collection
Velazco, Gundelina	1997	N-299 Formulation the Research Problem
Velazco, Gundelina	1997	N-299 Identifying Frame of Reference
Velazco, Gundelina	1997	N-299 Instrument Construction
Velazco, Gundelina	1997	N-299 Looking the Literature
Velazco, Gundelina	1997	N-299 Nature and Characteristics of Qualitative
Barcelo, Teresita	1997	N-299 Nursing Research and the Scientific Approach
Barcelo, Teresita	1997	N-299 Overview of Data Collection
Velazco, Gundelina	1997	N-299 Qualitative Research Designs
Barcelo, Teresita	1997	N-299 Quantitative Research Designs: Experimental
Barcelo, Teresita	1997	N-299 Quantitative Research Designs: Nonexperimental
Velazco, Gundelina	1997	N-299 Role of Management
Barcelo, Teresita	1997	N-299 Writing the Research

COLLEGE OF PHARMACY

Author/Editor	Year	Complete Title
de Castro, Natividad Gutierrez, Leticia Barbara	1996	Lagundi - Technology Transfer Document
de Castro, Natividad Gutierrez, Leticia Barbara	1996	Sambong - Technology Transfer Document
de Castro, Natividad Gutierrez, Leticia Barbara	1996	Akapuldo- Technology Transfer Document
Gutierrez, Leticia Barbara Gutierrez, Leticia Barbara	1996	Philippine National Drug Formulary, 4th Ed, Vol 1

COLLEGE OF PUBLIC HEALTH

Author/Editor	Year	Complete Title	Name of Publisher
delas Llagas, Lillian	1999	State of the Art: Malaria Vector Control (Chapter)	
Tiglaio, Teodora	1998	A Century of Public Health in the Philippines	PCHRD
Vitasa, Benjamin	1998	Ethical Guidelines for Biomedical Research	IPPAO-UPManila
Tempongko, Ma Sandra	1998	Innovative Health Care Project: Extended Case Studies on Good Health Care Management	WHO Publication DOH-HAMIS
Tempongko, Ma Sandra	1998	Manual on the Prevention and Control of Common Cancer (contributor)	WHO Publication
Belizario, Vicente Jr (Ed)	1998	Philippine Textbook of Parasitology	IPPAO-UPManila
Solon, Juan Antonio (Co-ED)	1998	Philippine Textbook of Parasitology	IPPAO-UPManila
Leonardo, Lydia	1998	Philippine Textbook of Parasitology (Chapter)	IPPAO-UPManila
Tempongko, Ma Sandra	1998	STD in Asia and the Pacific (chapter)	WHO Publication
Pesigan, Arturo	1997	Capacities and Vulnerabilities: Disaster Health Management in the Philippines	PCHRD
delas Llagas, Lillian	1997	Entomolohiya Medikal	UP Press
delas Llagas, Lillian	1997	Insekto ng Pilipinas	UP Press
Tempongko, Ma Sandra (Editor)	1997	Manual for STD Program Managers	
Belizario, Vicente Jr	1997	Study Guide on Medical Parasitology (Chapter)	CPH-UPM
Leonardo, Lydia	1997	Study Guide on Medical Parasitology (Chapter)	CPH-UPM
Rivera, Pilarita	1997	Study Guide on Medical Parasitology (Chapter)	CPH-UPM
Solon, Juan Antonio	1997	Study Guide on Medical Parasitology (Chapter)	CPH-UPM
Tiu, Wilfred	1997	Study Guide on Medical Parasitology (Chapter)	CPH-UPM
Tempongko, Ma Sandra	1996	Cue Cards for TB Chemotherapy, Communication Materials for Health Workers	
Baltazar, Jane	1996	International Handbook of Public Health: (Chap) Public Health - Theory, Training and Research	Greenwood Press London
Tiglaio, Teodora	1995	International Handbook of Public Health: (Chap) Public Health in the Philippines	Greenwood Press London
Pesigan, Arturo	1996	Temporary Human Settlements	Univ of Wisconsin
Tiglaio, Teodora	1995	WHO Sexual Behavior in the Developing World (contributor)	WHO Publication, Manila
Tempongko, Ma Sandra	1994	Manual for Health Education and Social Mobilization	
Baltazar, Jane	1994	Measurement of Hygiene Behaviour in Metro Manila: Studying Behavior, Methods, Issues and Experiences (Chapter)	
Tempongko, Ma Sandra	1994	Studying Hygiene Behavior, Methods, Issues and Experiences (contributor)	Sage Publication, London
Tempongko, Ma Sandra	1994	Your Health Guide: The Family Health Guide (contributor)	Manila
Tiglaio, Teodora	1993	Hygiene behaviour and Hospitalized severe Childhood Diarrhea: A case control study	WHO Bulletin, Manila
Tempongko, Ma Sandra			

COLLEGE OF PUBLIC HEALTH DISTANCE EDUCATION MODULES
(CPH, DISTANCE EDUCATION OFFICE)

Author/Editor	Year	Complete Title
ANCHETA, Caridad A.	1996	Bio 201 - Fundamentals of Biostatistics: Data Collection (Module 2)
ANCHETA, Caridad A.	1996	Bio 201 - Fundamentals of Biostatistics: Vital Statistical Rates and Ratios (Module 8)
ANCHETA, Caridad A.	1997	Bio206 Research Methods: Review of Literature
ANCHETA, Caridad A.	1997	Epi201 - Principles of Epidemiology
ANCHETA, Caridad A.	1997	Epi203 - Communicable Disease Control
ANCHETA, Caridad A.	1997	Bio206 - Research Methods: Research Designs (Module 3)
BORJA, Maridel P.	1996	Bio 201 Fundamentals of Biostatistics: Measures of Central Tendency (Module 11)

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BORJA, Maridel P.	1996	Bio 201 Fundamentals of Biostatistics: Measures of Dispersion and Location (Module 12)
BORJA, Maridel P.	1996	Bio 201 Fundamentals of Biostatistics: Fundamentals of Statistical Inference (Module 14)
BORJA, Maridel P.	1996	Bio 201 Fundamentals of Biostatistics: Analyzing Qualitative Data (Module 15)
CRISOSTOMO, Marilyn E.	1997	Bio206 Research Methods: Sample Size Determination (Module 11)
CRISOSTOMO, Marilyn E.	1997	Bio206 Research Methods: Research Management (Module 12)
CRISOSTOMO, Marilyn E.	1997	PH 203 Community Disaster Management: Rapid Assessment and Surveillance
MARAMBA, Inocencio C.	1997	Bio 206 Research Methods: The Use of Computers in Health Research (Module 15)
MARAMBA, Inocencio C.	1997	Epi 201 - Principles of Epidemiology
MARAMBA, Inocencio C.	1998	PH 280 Field Practice - Module I: Course Requirements and Performance Evaluation Tools (Module 1, lesson 2)
MENDOZA, Ophelia M.	1996	Bio 201 Fundamentals of Biostatistics: Steps in Planning and Conducting a Research (Module 3)
MENDOZA, Ophelia M.	1996	Bio 201 Fundamentals of Biostatistics: Sampling Human Population (Module 4)
MENDOZA, Ophelia M.	1996	Bio 201 Fundamentals of Biostatistics: Analyzing Quantitative Data (Module 16)
MENDOZA, Ophelia M.	1996	Bio 201 Fundamentals of Biostatistics: Investigating Relationships Between Variables (Module 17)
MENDOZA, Ophelia M.	1997	Bio 206 Research Methods: Steps in Planning and Conducting a Research (Module 1)
MENDOZA, Ophelia M.	1997	Bio 206 Research Methods Sampling Human Population (Module 4)
REYES, Lilia M.	1996	Bio 206 Research Methods: Data Processing (Module 8)
REYES, Lilia M.	1997	Bio 201 Fundamentals of Biostatistics: Data Processing (Module 5)

REYES, Lilia M.	1996	Bio 201 Fundamentals of Biostatistics: Demography Describing the Population (module 6)
REYES, Lilia M.	1996	Bio 201 Fundamentals of Biostatistics: Demography Population Estimation (module 7)
REYES, Lilia M.	1996	Bio 201 Fundamentals of Biostatistics Tabular Presentation (Module 9)
REYES, Lilia M. (Course Coordinator)	1997	EPI 201 - Principles of Epidemiology
REYES, Lilia M.	1997	Bio 206 Research Methods: Data Collection and Questionnaire Design (Module 6)
REYES, Lilia M.	1997	EPI 203 - Communicable Disease Control
REYES, Lilia M.	1997	PH 203 Community Disaster Management : Community and Hospital Disaster Preparedness (Module 6)
REYES, Lilia M.	1997	PH 203 Community Disaster Management: Psychosocial Aspects (Module 12)
REYES, Lilia M.	1997	PH 203 Community Disaster Management: Rapid Assessment and Surveillance (Module 9)
SANIEL, Ofelia P.	1997	Epi 201 - Principles of Epidemiology
SANIEL, Ofelia P.	1998	PH 280 Field Practice Modle I: Course Requirements and Performance Evaluation Tools (Module 1, Lesson 2)
SANIEL, Ofelia P.	1998	EPI 203 - Communicable Disease Control
SANIEL, Ofelia P.	1997	Bio 206 Research Methods: Ethics in Research (Module 13)
SANIEL, Ofelia P.	1997	Bio 206 Research Methods: Writing the Research Proposal and the Research Report (Module 14)
SAROL, Jesus Jr. N.	1996	Bio 201 Fundamentals of Biostatistics: A Basic Tool: A Normal Distribution (Module 13)
SAROL, Jesus Jr. N.	1997	Epi 201 - Principles of Epidemiology
SAROL, Jesus Jr. N.	1997	Bio 206 Research Methods: Validity of Measurements (Module 7)
SAROL, Jesus Jr. N.	1996	Bio 201 Fundamentals of Biostatistics: Graphical Presentation (Module 10)

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ALDAY, Adalberto	1995	PH 201/202 - Module III Microbiology Viral Respiratory Infections
BARZAGA, Nina G.	1995	PH 201/202 - Module III Microbiology: Viral Gastro-Intestinal Infections (Lesson 10)
BARZAGA, Nina G.	1995	PH 201/202 Module III Microbiology: Viral Sexually Transmitted Diseases (Lesson 11)
CHAN, Veronica F.	1995	PH201/202 Module III Microbiology: Vaccination and Hazards of Vaccination (Lesson 4)
CHAN, Veronica F.	1995	PH201/202 Module III Microbiology: Viral Infections of the Central Nervous System (Lesson 9): Mosquito-Borne Encephalitides, Dengue Hemorrhagic Fever, Rabies; Poliomyelitis (w/ V.E. Gabriel)
DANCEL, Louella A.	1995	PH201/202 Module III Microbiology: Mycotic Infections (Lesson 12)
DANCEL, Louella A.	1998	PH280 Field Practice: Social Organization/ Social Mobilization (Module 1, Lesson 5, Topic 2)
JACALNE, Antonio V.	1995	PH201/202 Module III Microbiology: Microbial Ecology (Lesson 1)
LARIOS, Theresita R.	1995	PH201/202 Module III Microbiology: Microbial Control (Lesson 2)
MADRASO, Eloisa D.	1995	PH201/202 Module III Microbiology: Immunology of Microbial Infections (Lesson 3)
MANUSON, Nidia M.	1995	PH201/202 Module III Microbiology: Bacterial Diarrheal Infection and Intoxication (Lesson 6)
ORTEGA, Adelwisa R.	1995	PH 201/202 Module III Microbiology: Bacterial Sexually Transmitted Diseases (Lesson 7)
ORTEGA, Adelwisa R.	1995	PH 201/202 Module III Microbiology: Bacterial Respiratory Infections (Lesson 5)
ORTEGA, Adelwisa R.	1997	PH 203 Community Disaster Management; Emergency Settlement (Module 7)
ORTEGA, Adelwisa R.	1997	PH 203 Community Disaster Management; Psychosocial Aspects (Module 12)

BELIZARIO, Vicente, Jr. Y.	1995	Public Health 201/202 Man, Health and Environment: Contact Transmitted Parasites (Module 2, Lesson 3)
BELIZARIO, Vicente, Jr. Y.	1998	PH 280 Field Practice: Situational Analysis Municipal Level (Module 1, Lesson 3)
BELIZARIO, Vicente, Jr. Y.	1997	PH 203 - Community Disaster Management: Diseases In Emergency Situations (Module 10)
CRUZ, Amante C.	1995	PH 201/202 Man, Health and Environment: Food/Water Transmitted Parasites-Taenia (Module 2, Lesson 4, Topic 4.2)
CRUZ, Amante C.	1995	Public Health-201/202 Man, Health and Environment: Soil Transmitted Parasites (Module 2, Lesson 2)
DE LAS LLAGAS, Lilian A.	1995	PH201/202 Man, Health and Environment: Arthropods of Medical and Public Health Importance
DE LAS LLAGAS, Lilian A.	1997	Epi 203 - Communicable Disease*
DE LEON, Winifreda U.	1995	PH201/202 Man, Health and Environment: Food/Water Transmitted Parasites - Entamoeba, Capillaria & Giardia (Module 2, Lesson 4, Topic 4.1)
DE LEON, Winifreda U.	1998	PH280 Field Practice: Social Organization/ Social Mobilization (Module 1, Lesson 5, Topic 2)
MONZON, Roberto B.	1995	PH -201/202 Man, Health and Environment: Food/Water Transmitted Parasites - Trematodes (Module 2, Lesson 4, Topic 4.3)
MONZON, Roberto B.	1995	Public Health - 201/202 Man, Health and Environment: Introduction to Medical Parasitology (Module 2, Lesson 1)
RIVERA, Pilarita T.	1995	PH 201/202 Man, Health and Environment: Mosquito Transmitted Parasites - Malaria (Module 2, Lesson 5.1)
SOLON, Juan Antonio A.	1998	PH 280 Field Practice : Implementation of Planned Activities (Module 2, Lesson 1)
TIU, Wilfred U.	1995	PH-201/202 Man, Health and Environment: Food/Water Transmitted Parasites - Schistosoma (Module 2, Lesson 4, Topic 4.4)
CARAGAY, Ruben N.	1995	PHA 201 Principles of Health Administration: The Health System (Module 1, Lesson 2.1)

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CARAGAY, Ruben N.	1996	PHA 201 Planning: Concepts and Principles (Module 2, Lesson 1)
CARAGAY, Ruben N.	1996	PHA 201 Planning: Program Planning (Module 2, Lesson 4.1)
CARAGAY, Ruben N.	1998	HA202 Organization and Management of the Different Departments and Services of the Hospital:
CARAGAY, Ruben N.	1997	PHA216 Human Resource Management: Indicators of Staffing Needs Method (Module 4.2)
CARAGAY, Ruben N.	1997	PHA216 Human Resource Management: Employee Intake (Module 5)
CARAGAY, Ruben N.	1997	HA205 Hospital Information System: Medical Records and their Management (Module 1)
CARAGAY, Ruben N.	1997	Primer on Hospital Administration: Hospital System (Chapter 1)
DUQUE, Elnora E.	1997	PHA216 Human Resource Management: Nature of Human Resource Management: Frame work for the Course (Module 1)
DUQUE, Elnora E.	1997	PHA 216 Human Resource Management: Job Design (Module 3.1)
DUQUE, Elnora E.	1997	PHA 216 Human Resource Management: Improving Employee Motivation (Module 8)
DUQUE, Elnora E.	1997	PHA 216 Human Resource Management: Creating Productive Work teams (Module 9)
DUQUE, Elnora E.	1997	PHA 216 Human Resource Management: Supervision of Health Personnel (Module 10)
DUQUE, Elnora E.	1997	PHA 216 Human Resource Management: Job Evaluation (Module 11)
DUQUE, Elnora E.	1997	PhA 216 Human Resource Management: Employee Health and Safety (Module 13)
DUQUE, Elnora E.	1997	PHA 216 Human Resource Management: HR Information, Recording, Accounting and Measurement (Module 15)
DUQUE, Elnora E.	1996	PHA 201.1 Implementation: Introduction to Implementation (Module 11, Lesson 1)

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DUQUE, Elnora E.	1996	PHA 201.1 Implementation: Introduction to Implementation (Module 11, Lesson 1)
DUQUE, Elnora E.	1996	PHA 201.1 Implementation: Leading (Module 11, Lesson 4)
DUQUE, Elnora E.	1996	PHA 201.1 Implementation: Staff Motivation (Module 11, Lesson 5)
DUQUE, Elnora E.	1996	PHA 201.1 Implementation: Managerial Leadership (Module 11, Lesson 6)
DUQUE, Elnora E.	1996	PHA 201.1 Implementation: Staffing (Module 11, Lesson 3)
DUQUE, Elnora E.	1996	PHA 201.1 Implementation: Organizing (Module 11, Lesson 2)
DUQUE, Elnora E.	1997	Primer on Hospital Administration: An Overview of Quality Assurance in Hospitals (Chapter 6)
LAWAS, Noel D.	1995	PHA 201 Principles of Health Administration Health and Development (Module 1, Lesson 1)
LAWAS, Noel D.	1995	PHA 201 Module 1 Principles of Health Administration Primary Health Care (Module 1, Lesson 1.2)
LAWAS, Noel D.	1996	PHA 201.1 Controlling and Evaluation: Information Management in Health System (Module 1, Lesson 6)
LAWAS, Noel D.	1997	Primer on Hospital Administration; Developing Strategies for Improvement of Hospital Effectiveness
LAWAS, Noel D.	1996	PHA 201.1 Controlling and Evaluation: Health Program Evaluation Part 1 (Module 1, Lesson 4)
LAWAS, Noel D.	1996	PHA 201.1 Controlling and Evaluation: Health Program Evaluation Part 2 (Module 1, Lesson 5)
LORENZO, Fely Marilyn E.	1997	PHA 216 Human Resource Management: Health Human Resource Policies (Module 2)
LORENZO, Fely Marilyn E.	1997	PHA 216 Human Resource Management: Health Human Resource Development and Career Progression (Module 6)
LORENZO, Fely Marilyn E.	1997	PHA 216 Human Resource Management: Management and Employee Relations and Discipline Complaints and Grievances (Module 14)

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LORENZO, Fely Marilyn E.	1997	PHA 216 Human Resource Management: Assessing and Evaluating the HRM System: Achieving Productivity through People (Module 16)
MABUNGA, Ma. Susan Y.	1996	PHA 201.1 Implementation: Organizing (Module 11, Lesson2)
MELLA, Minda P.	1995	PHA 201 Principles of Health Administration Economic Characteristics/Dimensions of the Health System (Module 1, Lesson 2.2)
MELLA, Minda P.	1995	PHA 201 Principles of Health Administration: Development of Management Thought (Module 1, Lesson 3.1)
MELLA, Minda P.	1997	Primer on Hospital Administration : Financing of Hospital Services (Chapter 8)
MELLA, Minda P.	1996	PHA 201.1: Controlling and Evaluation: Overview on Controlling (Module 1, Lesson 1)
MARAMBA, Tomas Jr., P.	1997	HA 205 Hospital Information System: Quality Assurance Program in Hospitals (Module 4.2)
MARAMBA, Tomas Jr., P.	1997	HA 205 Hospital Information System: Quality Assurance Program (Module 4.1)
MERCADO, Remigio D.	1995	PHA 201 Principles of Health Administration: Fundamentals of the Managerial Process (Module 1, Lesson 3.2)
MERCADO, Remigio D.	1998	HA 201 Principles of Hospital Organization and Management: Course and Study Guide
MERCADO, Remigio D.	1998	PH 280 Field Practice Evaluation (Module 11 lesson 2)
MERCADO, Remigio D.	1997	Primer on Hospital Administration: Selected Issues (Chapter 9)
MERCADO, Remigio D.	1997	HA 205 Hospital Information System: Hospital Statistics: Computation and Interpretation (Module 2)
MERCADO, Remigio D.	1997	Primer on Hospital Administration: Financing of Hospital Services (Chapter 8)
MERCADO, Remigio D.	1997	Primer on Hospital Administration: The Hospital System (Chapter 1)

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MERCADO, Remigio D.	1997	Primer on Hospital Administration: Uniform Hospital Definitions (Chapter 2)
MERCADO, Remigio D.	1997	Primer on Hospital Administration: Planning the Establishment and Managing the Direction of a Hospital (Chapter 3)
MERCADO, Remigio D.	1996	PHA 201 Planning: Problem Identification and Explanation (Module 2, Lesson 2.2)
MERCADO, Remigio D.	1996	PHA 201 Planning: Health Policy and Planning (Module 2, Lesson 3)
PARAJAS, Irma L.	1996	PHA 201.1 Implementation: Staffing (Module 11, Lesson 3)
RECON, Edgardo P.	1997	HA 205 Hospital Information System: Legal Aspects of Medical Records (Module 5)
RECON, Edgardo P.	1997	Primer on Hospital Administration Legal Aspects of Hospital Admin. (Chapter 7)
RECON, Edgardo P.	1998	HA 207 (206) Hospital Accounting
RECON, Edgardo P.	1997	HA 205 Hospital Information System: Quality Assurance Program (Module 4.1)
RECON, Edgardo P.	1996	PHA 209 Planning: Lesson in Budgeting in Relation to Program Planning (Module 2, Lesson 4.2)
RECON, Edgardo P.	1996	PHA 201.1 Controlling & Evaluation: Other Monitoring/ Control Devices (Module 1, Lesson 3)
RECON, Edgardo P.	1996	PHA 209 Planning : Lesson in Project Planning (Module 2, Lesson 5)
RECON, Edgardo P.	1996	PHA 201.1 Controlling and Evaluation: Budgeting and Auditing (Module 1, Lesson 2)
RILLON, Edmunda B.	1998	HA 202 Organization and Management of the Different Department and Services of the Hospital:
RILLON, Edmunda B.	1997	PHA 216 Human Resource Management: Job Analysis (Module 3.2)
RILLON, Edmunda B.	1997	PHA 216 Human Resource Management: Performance Appraisal (Module 7)

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RILLON, Edmunda B.	1998	HA 202 Organization and Management of the Different Departments and Services of the Hospital: Laboratory Department (Chapter 8)
RILLON, Edmunda B.	1997	Primer on Hospital Administration (Chapter 4)
RILLON, Edmunda B.	1998	PH 280 Field Practice: The Challenge of BarangayFeliz (Module 1, Lesson 5, Topic 4)
RILLON, Edmunda B.	1997	HA 205 Hospital Information System: Quality Assurance Program in Nursing (Module 3)
SISON, Fernando		Compilation of Readings in Hospital Accounting
TADIAR, Florence M.	1995	PHA 201 Principles of Health Administration: Problem Solving and Decision Making (Module 1, Lesson 4)
TOBIAS, Eufemia M.	1998	PH 280 Field Practice Orientation to the PH280 Course (Module 1, Lesson 1)
TOBIAS, Eufemia M.	1997	PH 203 Community Disaster Management: Health Services Organization (Module 5)
TOBIAS, Eufemia M.	1996	PHA 201 Planning: Situational Analysis (Module 2, Lesson 2.1)
YABES, Julita I.	1997	PHA 216 Human Resource Management: Human Resource Planning (Module 4.1)
YABES, Julita I.	1997	PHA 216 Human Resource Management: Management of Rewards (Module 12)
FIRMO, Lucifino V.	1998	PH280 Field Practice- Module Disengagement/ Integration (Lesson 3)
FLORES, Emilie G.	1995	PH201/202 Module III Nutrition: Protein Energy Malnutrition (Module 5)
FLORES, Emilie G.	1995	PH201/202 Module III Nutrition: Iodine Deficiency Disorder (Module 8)
FLORES, Emilie G.	1995	PH201/202 Module III Nutrition: Nutritional Disorder and other Nutritional Deficiencies (Module 9)
FLORES, Emilie G.	1995	PH201/202 Module III Nutrition: Special Nutrition Related Topics
FLORES, Emilie G.	1995	PH201/202 Module III Nutrition: National Nutrition Policy and Programs (Module 11)

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RABUCO, Lucila B.	1997	PH 203 Community Disaster Management: Nutrition in Emergency Situation (Module 11)
RABUCO, Lucila B.	1995	PH 201/202 Module III Nutrition Review of Basic Principles and Concepts (Module 1)
RABUCO, Lucila B.	1995	PH 201/202 Module III Nutrition: Food Consumption Survey (Module 3)
RABUCO, Lucila B.	1995	PH 201/202 Module III Nutrition: Nutritional Anthropometry (Module 4)
RABUCO, Lucila B.	1995	PH 201/202 Module III Nutrition: Nutritional Anemias (Module 6)
RABUCO, Lucila B.	1995	PH 201/202 Module III Nutrition: Vitamin A Deficiency Disorders and
ONG, Rafaelita A.	1996	HPE 212 Socio-Cultural Determinants of Health; The Dynamics of Sociocultural Change (Module 8)
ONG, Rafaelita A.	1997	HPE 215 Human Behavior in Health Care Organizations: Organizational Development
ONG, Rafaelita A.	1998	PH 280 Field Practice: Meeting with Intersectoral Groups (Module I, Lesson 4)
ONG, Rafaelita A.	1998	PH 280 Field Practice: Organizing/Mobilizing the Community for planning, Implementation, Monitoring and Control (Module I, Lesson 5, Topic 3)
ONG, Rafaelita A.	1997	PH 203 - Community Disaster Management: Health Promotion and Education (Module 14)
ONG, Rafaelita A.	1997	HPE 210 Public Health Education: Change Process (Module 7)
ONG, Rafaelita A.	1997	HPE 210 Public Health Education : Counseling (Module 9)
ONG, Rafaelita A.	1997	HPE 210 Public Health Education: Group Discussion (Module 10)
ONG, Rafaelita A.	1997	HPE 210 Public Health Education: Community, Organization/Social Mobilization (Module 16)

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Quesada, Minda Luz, M.	1996	HPE 212 Socio-Cultural Determinants of Health: Political Determinants of Health (Module 6)
QUESADA, Minda Luz M.	1996	HPE 212 Socio-Cultural Determinants of Health: Economic Determinants of Health (Module 5)
RAMOS, Buenalyn Teresita M.	1996	HPE 212 Socio-Cultural Determinants of Health: Multi-Causation of Illness (Module 1)
RAMOS, Buenalyn Teresita M.	1997	HPE 210 Public Health Education: Learning Process (Module 5)
RAMOS, Buenalyn Teresita M.	1997	HPE 201 Public Health Education: Social Marketing (Module 12)
RAMOS, Buenalyn Teresita M.	1997	HPE 201 Public Health Education: Folk Media (Module 13)
RAMOS, Buenalyn Teresita M.	1997	HPE 201 Public Health Education: Enter Educate (Module 14)
TEMPONGKO, Ma. Sandra B.	1996	Bio206 Research Methods: Qualitative Research (Module 5)
TEMPONGKO, Ma. Sandra B.	1996	Bio206 Research Methods: Qualitative Research (Module 5)
TEMPONGKO, Ma. Sandra B.	1996	HPE 212 Socio - Cultural Determinants of Health: Political Determinants of Health (Module 6)
TEMPONGKO, Ma. Sandra B.	1996	HPE 212 Socio-Cultural Determinants of Health: Cultural Determinants of Health (Module 7)
TEMPONGKO, Ma. Sandra B.	1997	HPE 215 Human Behavior in Health Care Organization: Organizational Behavior
TEMPONGKO, Ma. Sandra B.	1996	PHA 201.1 Implementation: Organizational Communication (Module 11, Lesson 7)
TEMPONGKO, Ma. Sandra B.	1996	HPE 212 Socio-Cultural Determinants of Health Health: Economic Determinants of Health (Module 5)
TEMPONGKO, Ma. Sandra B.	1997	HPE 210 Public Health Education: Communication Process (module 6)
TEMPONGKO, Ma. Sandra B.	1997	HPE 210 Public Health Education: Strategies/Methods In Health Education/Promotion (Module 8)
TEMPONGKO, Ma. Sandra B.	1997	HPE 210 Public Education: Mass Media (Module 11)
TEMPONGKO, Ma. Sandra B	1997	HPE 210 Public Health Education: Planning the Health Promotion/Education Component (Module 17)

TIGLAO, Teodora V.	1997	HPE 210 Public Health Education: Definitions Scope, and Foundations of Health Education/Health Promotion (Module 1)
TIGLAO, Teodora V.	1996	HPE 212 Socio-Cultural Determinants of Health: Society and Culture (Module 2)
TIGLAO, Teodora V.	1996	HPE 212 Socio-Cultural Determinants of Health: Cultural Evolution and the Historical Development of Public Health - Global Perspective (Module 3)
TIGLAO, Teodora V.	1996	HPE 212 Socio-Cultural Determinants of Health: Historical Perspective of Public Health in the Philippines (Module 4)
TIGLAO, Teodora V.	1997	HPE 210 Public Health Education: Historical and Philosophical Foundations of Health Education/Promotion (Global) (Module 2)
TIGLAO, Teodora V.	1997	HPE 210 Public Health Education: Philosophy and History of Health Education and Promotion in the Philippines (Module 3)
TIGLAO, Teodora V.	1997	HPE 210 Public Health Education: Biomedical and Social Foundations of Health Education (Module 4)
TIGLAO, Teodora V.	1997	HPE 210 Public Health Education: Training (Module 15)
LU, Jinky P.	1998	PH280 - Field Practice: Social Investigation (Module 1, Lesson 5, Topic 1)
MACARAEG, Perla S.	1998	PH260 - Field Practice: Plan Formulation (Module 1, Lesson 5, Topic 5)
PESIGAN, Arturo M. Course coordinator	1997	PH 203 - Community Disaster Management: State of Disaster (Module 1)
PESIGAN, Arturo M.	1997	PH 203 Community Disaster Management: Definitions and General Concepts (Module 2)
PESIGAN, Arturo M.	1997	Occupational Health Hazards
PESIGAN, Arturo M.	1997	PH 203 - Community Disaster Management: Legal and Ethical Aspects (Module 3)

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PESIGAN, Arturo M.	1997	PH 203 - Community Disaster Management: Planning and Management Principles (Module 4)
PESIGAN, Arturo M.	1997	- and Hospital Disaster Preparedness (Module 6)
PESIGAN, Arturo M.	1997	PH 203 - Community Disaster Management: Emergency Settlement (Module 7)
PESIGAN, Arturo M.	1997	PH 203 - Community Disaster Management: Logistic (Module 8)
PESIGAN, Arturo M.	1998	PH 280 Field Practice: Implementation of Planned Activities (Module 11, Lesson 1)
SUBIDA, Ronald D.	1997	PH 280 Field Practice: Meeting with Intersectoral Groups (Module 1, Lesson 4)

NATIONAL TEACHERS TRAINING CENTER FOR THE HEALTH PROFESSION

Author/Editor	Year	Complete Title
	1993	Grades and Grading System
	1993	Creative Teaching in the Health Professions
	1993	Essence of Caring
	1994	Media in Teaching
	1994	The Camera
	1994	Clinical Evaluation Checklist and Rating Scale
	1994	Congenital Anomalies
	1994	Guide to Electrocardiogram Measurements for Paramedicals
	1995	Introduction to Distance Education
	1995	Primer-Pagemaker
	1995	Instructional Design: An Overview
	1995	Competency-based Curriculum
	1995	Formulation of Research Problems
	1995	Development of Hypotheses and Research Frameworks
	1995	Partially Dentate Patients Part I Case Analysis and Treatment Planning
	1996	Training Tutors for Distance Education
	1996	Assessment of Affective Learning
	1996	Curriculum Planning and Development: An Overview
	1996	Community-based Education
	1996	Introduction to Computers and MS Word
	1996	Epidemiologic and Statistics in Obstetrics
	1997	Neonatal Intestinal Obstruction
	1998	Acute Abdominal Pain

COLLEGE OF MEDICINE

Author/Editor	Year	Complete Title	Place of Publication	Name of Publisher
Domingo, C.F., Ramos, -Abad, L.F., Chan-Cua, S., Capistrano-Estrada, S.B.	1995	Useful Tests for Pediatric Endocrine Disorders	Manila	Developmental and Ambulatory Pediatrics
Affler, C.A., Bonzon, D. and Elses, J.S.	1995	Pediatric Kidney Digest	Manila	Developmental and Ambulatory Pediatrics
Mabilangan, L.M., Reloza, A.A., Ortiz, E.E., Alboliras, E.T., Ty, E.T.	1995	Handbook of Pediatric Cardiology	Manila	Developmental and Ambulatory Pediatrics
Guerrero, M.P., Fernandez, A.F., Isieta, P.F. D., Gatmaltan, A., Genuino, A.S.	1995	Manual of Newborn Baby Care	Manila	Developmental and Ambulatory Pediatrics
Antonio A. Limson, M.D., Jose Luis J. Danguilan, M.D., Armando C. Crisostomo, M.D.	1996	Ang Maninistis (Coffee table book)	Manila	Department of Surgery
Dr. Kenneth Y. Hartigan-Go	1996	Poisons Infomation monographs for the WHO: Diarrheic shellfish poisoning, Ascorbic Acid, Treatment guideline for opioid withdrawal	Manila	Dept. of Pharmacology
Dr. Kenneth Y. Hartigan-Go	1996	Drug interaction chart	Manila	DOH-NDP
Dr. Cleotilde H. How	1996	Pediatric Drug Handbook	Manila	Dept. of Pharmacology
Dr. Irma I. Makalinao	1996	PPS Drug handbook	Manila	Philippine Pediatric Society APMC
Palo Garcia, Fe et al	1996	- Textbook of Obstetrics: Physiologic Obstetrics - Textbook of Obstetrics: Pathologic Obstetrics	Manila	
Sotto, L., Manalo, A., Limson, G	1996	Gynecologic Oncology for the Clinician, 2nd Edition	Manila	SGOP
Limson, G. & Llave, C.	1996	Colposcopy for Beginners, 2nd Edition	Manila	Celaxo
Dr. Zorayda E. Leopando	1998	PSTFM Teacher Training Workshops from 1993-1996: It's Relevance, Impact and Apicability	Manila	Filipino Family Physicians
Dr. Florante P. Gonzaga Dr. Rosalinda B. Arceo	1998	Textbook of Reproductive Endocrinology and Fertility	Manila	Wyeth
Dr. Cecilia L. Llave, editor	1998	Manual for Colposcopist	Manila	SERAGEN

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APPENDIX C

Papers and Articles Published

COLLEGE OF ALLIED MEDICAL PROFESSIONS

Author/Co-author(s)	Title of Paper/Article	Journal/ Proceeding	Vol/No	Issue date
Magallona, Ma Lucia M Mencias, Cristina	Development of a generic core module for community based education: The UPM experience	UP Manila Journal	3:02	1997 April-June
Magallona, Ma Lucia M	Transdisciplinary approach: Is the day of the multi-therapist with us already?	Human Communication	3:04	1994 Aug-Sept
Magallona, Ma Lucia M Wirz, Sheila	Transdisciplinary approach: An alternative approach to rehabilitation	Technical Cooperation Journal	1:02	1993 Dec
Mojica, Georgina D, Mojica, Jose Alvin P	Training the post-stroke aphasic patient	Med Jour of dela Salle Univ	9:02	1993 Dec

COLLEGE OF ARTS AND SCIENCES

Author/Co-author(s)	Title of Paper/Article	Journal/Proceeding	Vol/No	Issue Date
Palabrica, Josephine M, et al	Fat and skinfold patterning in national elite female Filipino judo athletes	Biology of Sports	15:2	1998
Gavino, Pacita	Of wooden swords and golden bracelets: Philippine Theater 1565-1898	Igkas-Artes		1998
Palabrica, Josephine M, et al	Physique of national elite female Filipino judo athletes	Acta Kinesiologiae Univ Tartuensis	3:	1998
de Veyra, Miriam & Pocsidio GN	Potential protective effect of calcium carbo-nate in liming agent against copper toxicity in the African Tilapia, Oreochromis mossambicus	Sc of Total Environment	214:	1998
Nicolas, Marilou Fujiki K, Murayama K, et al Simbulan, Nymia P	Studies on the mechanism of early onset macular degeneration in cynomolus monkey; III Metallothionein synthesis and drusen A situation of children in the Philippines: Issues and challenges	for publication UP Manila Jour		1998 3:1 Jan-Mar 1997
Simbulan, Nymia; Hernandez Laufred; Imperial Reynaldo, et al Mactal, Ronald B	An ethnography of male sex workers in the Philippines	UP Manila Jour	3:1	Jan-Mar 1997
Mactal, Ronald B	Ang kabayanihan sa labas ng bansa, 1897-1903	Diliman Review	Nov	1997
isonera, Efren	Ang rebolusyong Pilipino sa Europa: Ang pagpapatuloy ng rebolusyong Pilipino sa ibang bansa	Pithaya		1997
Rubite, Rosario R	Inisyal na pagtataya ng mga sityong istoriko-cultural sa bayan ng Pandacan, Catanduanes	The Islander	9:134	Apr 1997
Simbulan, Nymia P	The effect of cytokines on the growth and proliferation of human malignant melanoma cells in vitro	UP Manila Jour	3:1	1997
Simbulan, Nymia P; Tayag, Josefina; Imperial, Reynaldo Simbulan, Nymia	The psychosocial factors influencing patient non-compliance in the anti-tuberculosis short course chemotherapy The seafaring population in the Philippines: Their lifestyle and work environment	UP Manila Jour	3:1	Jan-Mar 1997
Villar, Rafael Alcantara	A process evaluation of the OPD operating room system of the PGH	UP Manila Jour	2:	1996
Castillo, Fatima	Book Review: Rethinking communication	PSSC Social Science Information	22:2-4	1996
	People's attitudes to and knowledge of voluntary blood donation	UP Manila Jour		1996

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Nicolas, Marilou Fujiki K. Murayama K. et al	Studies on the mechanism of early onset macular degeneration in cynomolgus monkey: I Abnormal concentration of two proteins in the retina	Exp Eye Research	62	1996
Nicolas, Marilou Fujiki K. Murayama K. et al	Studies on the mechanism of early onset macular degeneration in cynomolgus monkey: II Suppression of metallothionein synthesis in the retina in oxidative stress	Exp Eye Research	62	1996
Castillo, Fatima	The social component of AIDS prevention among commercial sex workers	UP Manila Jour		1996
Suzuki, MP, Hayakawa M, Nicolas, Marilou, Kanai A. et al	A case of progressive macular degeneration in colony : Born cynomolgus monkey	Animal Eye Research	14	1995
Fujiki K, Hotta V, Haya-kawa M, Nicolas Marilou, et al	Candidate gene approach of retinitis	Jpn J Human Genet	40	1995
Nicolas, Marilou Fujiki K. Murayama K. et al	Detection and sequencing of metallothio-nein from the retina of cynomolgus monkey	Proceedings 6th Asian Chemical Cong	May	1995
Gavino, Pacita	English language teaching and the social services	J Asian English Studies	1:1-2	1995
Mactal, Ronald B	Mga kontrobersyon sa bayad pinal ng Espanya. Isang paglilinas	Diliman Review	43:3-4	1995
Nicolas, Marilou Fujiki K. Murayama K. et al	Studies on the mechanism of early onset molecular degeneration in cynomolgus monkey	Proceedings ARVO Ann Conf	May	1995
Nicolas, Marilou Fujiki K. Murayama K. et al	Synthesis of metallothionein in the retina of cynomolgus monkeys	Kimika	2	1995
Simbula, Nymia	The economics of community-based organizations in AIDS prevention	UP Manila Jour	1:1 Jun-Sep	1995
Gavino, Pacita	Synopsis of Ang Kalupi sarswela	CCP Encyclopedia of Phil Art		1994
Zamora PMS, Chaimong kol C, Beltran-Amoroso, Marza, Miniam Ruth	Structure and development of the gameto-phytes of Phil Cheilanths ferns: I Cheilanthes dilimanensis Zamora	Phil J Science	122:3	1993
delos Reyes, Josefina	Manila's centrality in health services and medicine	MSP Inaugural Lecture	1:1-4 Jan-Dec	1991

COLLEGE OF DENTISTRY

Author/Co-author(s)	Title of Paper/Article	Journal/Proceeding	Vol/No	Issue date
Escoto, Elmer	Case report: Cystic management in a 10-year old child	J Phil Dental Ass	50:1 Jun-Aug	1998
Jimena, Edna	Endodontic needs of geriatric patients in private practice	J Phil Dental Ass	49:4 Mar-May	1998
Gervasio, Natividad	Oral health status of institutionalized geriatric residents in Metro-Manila	J Phil Dental Ass	50:1 Jun-Aug	1998
Escoto, ET, Cham WY Arnante, Alvin C	Case report: Malignant fibrous histiocytoma of the maxilla	J Phil Dental Ass	44:1 Jun-Aug	1997
Lago, Leonor	A cephalometric study of incisor axial inclination and lip posture in Filipinos	DDM Jour	7:1 Mar	1994
Gervasio, Natividad	Ectodermal dysplasia: Its pedigree and manifestations in Filipinos	DDM Jour	7:1 Mar	1994
Macasaet, Avelino	Emission of mercury from amalgam fillings	DDM Jour	7:4 Dec	1994
Gervasio, Natividad	The oral manifestations of Down Syndrome in Filipino patients	DDM Jour	7:4 Dec	1994

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COLLEGE OF MEDICINE

Author/Co-author(s)	Title of Paper/Article	Journal/ Proceeding	Vol. / No.	Issue Date
Dr. Kenneth Y. Hartigan-Go	Acta Medica Philippina 1994 "Management of Chemical Incidents: On-site and Supporting Facilities Prior to Hospitalization"		0:00	1994
Mario J. Valenton, M.D.	Japanese Journal of Ophthalmology "Wound Infection after Cataract Surgery"	Journal		1995
Dr. Leonard Khu	Western Pacific Orthopedic Asso. Convention in Hong Kong "Trucut Biopsy: The PGH Experience"	Free papers		Jun-1905
Dr. Edgar Michael Eufemio	Western Pacific Orthopedic Asso. Convention in Hong Kong "Interobserver Reliability and Interobserver Reproducibility Using Neer Classification"	Free papers		Jun-1905
Dr. Norman Cabrera	Western Pacific Orthopedic Association Convention in Hong Kong "The Use of CT Scan in Evaluating Atypical Potts Disease"	free papers		
Department of Pediatric	"From the Neonate to the Adolescent: A Continuum of Care" "Challenges in the 90's: Pediatric Cancer and Infectious Disease"	Proceedings		Jun-1905
Department of Surgery	Residents Manual Year level IV Syllabus Year Level V Syllabus PGH Burn Unit handbook	Journal		1995
Dr. Kenneth Y. Hartigan-Go	Trauma Handbook	Journal	33	1995
Dr. Irma I. Makalinao	Phil. Journal of Internal Medicine		Vol. 4 No. 2	1995
Dr. Irma I. Makalinao	Quarterly publication of the Philippine National Drug Policy Office on the rational use of drugs "Paracetamol: a drug or poison?"	Journal		1995
Dr. Kenneth Y. Hartigan-Go (with RM Hussain, SHL Thomas & GA Ford)	American Journal of Emergency Medicine 1995 "The management and outcome of metallic mercury injection among Filipino male adolescents"	Journal	41	1996
Dr. Kenneth Y. Hartigan-Go (with DN Bateman, AK Daly & SHL thomas)	British Journal of Clinical Pharmacology 1996 "effect of oxybutynin on the Qtc interval in elderly patients with urinary incontinence"	Journal	60	1996
Dr. Kenneth Y. Hartigan-Go	Clinical Pharmacology and Therapeutics '96 "Stereo selective Cardiotoxic Effects of Terodiline"			1996
Dr. Cleotilde H. How	Phil. Journal of Internal Medicine "Red Tide Poisoning"	Proceedings		1996
Dr. Irma I. Makalinao	"Proceedings of the 7th Southeast Asian/Western Pacific Regional Meeting of Pharmacologists"	Proceedings		1996
Dr. Irma I. Makalinao	The Critical Care Management of Red Tide Poisoning	Journal		1996
Dr. Irma I. Makalinao	"Clinical course and outcome of a nearly fatal conotoxin poisoning: a case report"	Journal		1996
Dr. Irma I. Makalinao	"Red tide poisoning: the Philippine experience"	Proceedings		1996
Dr. Romeo F. Quijano	"Community-based drug utilization studies"	Proceedings		1996
Dr. Conrado Dayrit	Second Daniel de la Paz Memorial Lecture: Pharmacology for therapeutics then and now	Proceedings		1996
Dr. Crisostomo Arcilla Jr. Dr. Serafin Hilvano	Asian Journal of Surgery "Update on the management of obstructive Jaundice Hepatobiliary TB at PGH"	Journal	vol. 19 No. 4	Jun-05
Dr. Antonio Limson		Journal	21	1997
Dr. Mario de Villa Dr. Crisostomo Arcilla Jr.	World journal of Surgery "Intrahepatic Cholangiocarcinoma"			
Dr. Kent-Man Chu Dr. Edward C. S. Lai Dr. Sabah A. Jaaedi Dr. Chung-Mau Lo Dr. Chi-Leung Liu Dr. Sheung-Tat Fan				
Dr. John Woon Dr. Zorayda E. Leopando	Proceedings of the intl. teacher training workshop in family medicine, WONCA Middle East and South Asia Region "Lessons and Experiences in family medicine in Asia Pacific"	Proceedings		1998
Dr. Zorayda E. Leopando	Proceedings of the intl. teacher training workshop in family medicine, WONCA Middle East and South Asia Region "Continuing medical education in family medicine"	Proceedings		1998
Eugenio-Sarmiento R, Lim-Vitug A, Salido E, Amante C, Alejandra, M Manapat, H. Tongol R, Racho A, Yuson E, Caviles A, Dr. Reynaldo Joson	Asean pac. League of Asso. In Rheumatology (APLAR) journal abstract "Adverse drug reactions I rheumatoid arthritis patients"	Journal		1998
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