A RURAL COMMUNITY HEALTH
NURSING CURRICULUM MODEL FOR
IMPLEMENTATION IN INTEGRATED RURAL
DEVELOPMENT PROJECTS IN ECUADOR

A Report Prepared By:
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During The Period:
DECEMBER 17, 1982 TO JANUARY 22, 1983

Supported By The:
U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT
(ADSS) AID/DSPE-C-0053

AUTHORIZATION:
Ltr. AID/DS/HEA: 6-1-83
Assgn. No. 583126(5103979)
ACKNOWLEDGMENTS

The consultant wishes to thank the members of the Curriculum Committee of the Pontificia Universidad Católica del Ecuador School of Nursing: Sor Piedad Rojas, Lic. Nila Vallejo, Lic. Sylvana Ortiz, Lic. Carmen Falconí, and Lic. Isabel Jácome for their invaluable contributions to Phase Two of this project; and the staff of the National Development Council and the Ministry of Health of Ecuador, but especially Dr. José Castro, who so generously gave of his time to achieve true coordination between nursing education and national health priorities. Lastly, the consultant would like to acknowledge the following members of the faculty of the University of New Mexico: Dr. Marshall R. Nason, Dr. Neill Piland, and Dr. Howard L. Smith for lending their support to this project.

Karen L. Ruffing, the principal investigator/consultant, is a doctoral candidate at the University of New Mexico in a program combining a Ph.D. degree in Ibero-American Studies and a Master of Public Administration with a concentration in comparative public health administration. She holds a Baccalaureate degree from Northern Illinois University in Nursing Science and Spanish language and literature. She recently conducted research on the planning and implementation of maternal child health programs in rural Ecuador as a member of a research team sponsored by the U.S. Department of Education and the Fulbright Commission to study various facets of the integrated rural development process in Ecuador.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>v</td>
</tr>
<tr>
<td>ABBREVIATIONS</td>
<td>ix</td>
</tr>
</tbody>
</table>

## I. INTRODUCTION AND BACKGROUND

- Purpose of the Assignment ................................ 1
- Itinerary .................................................................. 1
- Country Profile Data .......................................... 2

## II. OBSERVATIONS AND FINDINGS: PHASE ONE

- Problem Statement ............................................. 9
- Review of the Literature ...................................... 10
- Objectives .......................................................... 12
- Procedure .......................................................... 13

## III. OBSERVATIONS AND FINDINGS: PHASE TWO

- Work Plan .......................................................... 17
- Project Results ................................................... 19

## IV. RECOMMENDATIONS FOR PROGRAM IMPLEMENTATION AND EVALUATION

- ................................................................. 25

## APPENDICES

- I. Chronogram of Activities with Technical Advisor
- II. Institutional Objectives of PUCE
- III. Curriculum Design of the Baccalaureate Program
- IV. Preprofessional Level
- V. Schematic Representation of Rural Community Health Nursing Curriculum
- VI. Professional Level I
- VII. Professional Level II
- VIII. Admission History and Assessment Form
- IX. Guide for Assessment of the Four Dimensions
- X. Professional Level III
- XI. Terminal Performance Objectives for Level III
- XII. Professional Level IV
- XIII. General Guidelines for Implementation
- XIV. Plan for Development of the School of Nursing
- XV. Role of the CHN Within the Health System: Professional Profile
- XVI. List of Persons Contacted

## BIBLIOGRAPHY
EXECUTIVE SUMMARY

The majority of deaths in Ecuador are due to communicable diseases, diarrheal disorders, and malnutrition, which are a direct result of inadequate diet and lack of potable water and sanitation facilities. While this is true throughout the country, enormous differences exist in the standard of living between urban and rural areas, and those differences directly affect the health status of the rural population. These disparities are compounded by limited access to health care facilities. In addition, absent in rural health care in Ecuador are such important functions as case finding, facilitation of entry into the health care system, monitoring of patient compliance, followup, data gathering and epidemiological control, health education and facilitation of community participation, program planning and administration, and effective utilization of auxiliary personnel in order to extend coverage.

The consultant recently conducted a field study regarding the planning and implementation of maternal-child preventive health programs in rural Ecuador. It revealed a lack of educational orientation toward primary health care in institutions of higher learning in that country, with a resultant lack of skills in the area of community health. These education deficiencies have had serious consequences for health care delivery in the rural areas.

While the development of skills in these areas by physicians and other members of the health team would be ideal, these functions are typically performed by community health nurses with aid of auxiliary personnel. Although nursing education in Ecuador takes place in the university setting, baccalaureate programs presently emphasize hospital-based nursing, which is strongly oriented toward the surgical specialties and critical care. As the Ministry of Health began to place increased emphasis on primary health care, the faculty of the School of Nursing of the Pontificia Universidad Católica realized that a curriculum change with a new orientation toward community health was necessary if nursing personnel were to participate more fully in the development of a national health care system.

The consultant was asked to provide the following input into the curriculum development process:

- Analyze proposed curriculum design for community nursing developed by the university.
- Provide information on curriculum design based on the University of New Mexico School of Nursing and/or other similar community nursing programs.
Visit areas where training experiences for students can be provided.

Meet with nursing faculty members as well as Ministry of Health officials on training needs related to community nursing.

Recommend modifications to proposed nursing curriculum, develop an implementation and evaluation plan for the curriculum design proposed, and suggest community nursing models for incorporation in Integrated Rural Development projects.

After a review of the literature, a paradigm developed by Ifaf Meleis, which was successfully implemented in Kuwait, was selected. The paradigm is a developmental model which focuses on:

I. The most significant social properties of the country.

II. Dimensions of health care.

III. Properties of nursing.

IV. Potential paradoxes due to the interaction between and among parts I, II and III.

V. The stated consequences of the consultations.

The objectives of this pilot project were to develop a model for community health nursing as well as an appropriate curriculum design and to implement the design in close coordination with rural health care providers, such as the Ministry of Health and USAID.

The project resulted in a nursing curriculum with an interdisciplinary preprofessional level and four semi-integrated professional levels (see Appendix III). The curriculum focuses on community health and follows a levels-of-prevention model, progressing from primary to tertiary care and program planning. The content areas as well as the integrating strands (research, administration, nursing process, health education, and transcultural nursing) are taught in units that correspond to the organization of primary care according to the life cycle, which was completed by the Ministry of Health in 1982. Terminal performance objectives established for each level of the program will facilitate the evaluation of the curriculum.

The graduates of this program are to be placed in three Integrated Rural Development Projects, which were jointly under-
taken by the Government of Ecuador and USAID, as well as other sites which the Ministry of Health deems appropriate.

It is the hypothesis of the consultant that improved case finding, followup, and referral for treatment to appropriate levels of service, as well as improved preventive program coordination by CHNs will increase the internal efficiency of the health care component of the Integrated Rural Development Projects. Furthermore, these will increase utilization rates and improve the health status of the rural population over the long term. These factors will be measured by means of indicators of internal efficiency, morbidity and mortality statistics, as well as an interview schedule to be used to evaluate the level of program coordination on site.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>APHA</td>
<td>American Public Health Association</td>
</tr>
<tr>
<td>CH</td>
<td>Community Health</td>
</tr>
<tr>
<td>CHN</td>
<td>Community Health Nurse</td>
</tr>
<tr>
<td>CONADE</td>
<td>Consejo Nacional de Desarrollo/National Development Council</td>
</tr>
<tr>
<td>DRI</td>
<td>Desarrollo Rural Integral/Integrated Rural Development</td>
</tr>
<tr>
<td>GCDA</td>
<td>Grupo de Coordinación de Desarrollo Administrativo/Group for Coordination of Administrative Development</td>
</tr>
<tr>
<td>MSP</td>
<td>Ministerio de Salud Pública/Ministry of Health</td>
</tr>
<tr>
<td>PUCE</td>
<td>Pontificia Universidad Católica del Ecuador/Catholic University of Ecuador</td>
</tr>
<tr>
<td>SEDRI</td>
<td>Secretaría de Desarrollo Rural Integral/Integrated Rural Development Secretariat</td>
</tr>
<tr>
<td>USAID</td>
<td>U.S. Agency for International Development</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
INTRODUCTION AND BACKGROUND

Purpose of the Assignment

This project is the result of a request by the Pontificia Universidad Católica del Ecuador School of Nursing to the U.S. Agency for International Development for technical assistance in the development of a curriculum for Rural Community Health Nursing at the baccalaureate level. Nursing education in Ecuador, as in the United States, is presently undergoing a transition from skill-oriented diploma programs to a university baccalaureate program. While 4-year programs are currently available in the country, the emphasis of such programs (which were originally based on U.S. nursing programs) is on hospital-based nursing, which is strongly oriented toward medical-surgical specialties and critical care. The faculty of the School of Nursing realized that this type of educational program was not producing the nursing personnel that the country needs. After several minor changes, which proved to be unsatisfactory, it was decided that the school should pursue a complete revision of its curriculum, with the help of the Kellogg Foundation.

In contrast with the other schools throughout the country, the focus of the new curriculum would be on family-centered community health nursing that would prepare graduates to participate more fully in the development of a national system of primary health care. The consultant was asked to provide the following input into the curriculum development process:

- Analyze proposed curriculum design for community nursing developed by the university.
- Provide information on curriculum design based on the University of New Mexico School of Nursing and/or other similar community nursing programs.
- Visit areas where training experiences for students can be provided.
- Meet with nursing faculty members as well as Ministry of Health officials on training needs related to community nursing.
- Based on the above analysis, observations, and discussions recommend modifications to proposed nursing curriculum; develop an implementation and evaluation plan for the curriculum design proposed; and suggest community nursing models for incorporation in Integrated Rural Development Projects.

Itinerary

The major portion of project activities were to be carried out in Quito at the PUCE and USAID Mission. The possible sites for training experiences that were visited by the consultant and the
members of the Curriculum Committee included the DRI projects in Salcedo, Cotopaxi, and Quimiah-Penipe, Chimborazo, as well as health subcenters and posts in the areas of Zumbagua, Cotopaxi, and Columba, Chimborazo. The DRI project in Jipijapa, Manabi, was inaccessible due to flooding of the coastal provinces.

Country Profile Data

Demographic Statistics

The majority of deaths in Ecuador are due to communicable diseases, for which there presently exist methods of prevention and cure, and to diarrheal disorders and malnutrition, which are a direct result of inadequate diet and lack of potable water and sanitation facilities.

Enormous differences exist in the standard of living between urban and rural areas, and these differences directly affect the health status of the rural population.

In 1980, 48.3 percent of the country's economically active population (2.7 million persons) was engaged in some form of agricultural production [7]*. In 1981, 4.8 million of the country's total population of 8.6 million resided in the rural areas, yet only 11.8 percent of this rural population had access to potable water, compared with 83.7 percent of urban dwellers. Only 10.8 percent of rural inhabitants have access to sanitation services, compared with 79.3 percent of the urban population [8]. The population of Ecuador is relatively young, with 44 percent under 15 years of age. The female population of childbearing age (15-44 years) reaches 19 percent of the total population [6]. Maternal and infant care and care of school-age children are important policy issues in a country where 63 percent of the population falls into these categories.

Nevertheless, until recently the importance of providing primary health care to this population has been ignored. At the time the National Plan was written in 1980, based on 1977 statistics, the maternal mortality rate was 1.6 per 1,000 live births and the infant mortality rate was 58 per 1,000 live births, although in some provinces in the rural areas this rate reached 70 per 1,000. Furthermore, these statistics are based on the number of deaths recorded, and these rates are probably somewhat higher in actuality. Only 29 percent of pregnant women receive prenatal care, 17 percent of deliveries are attended by a physician, and only 4.5 percent receive postpartum care. Well-child visits for children up to 5 years totaled 122,190 of a total patient population of at least 1.4 million. It was estimated that 40 percent of school-age children suffer from some degree of protein-calorie malnutrition. In the tropical zones of the country, 45 percent of the population is anemic. According to the Government, this is because the incomes of most of the rural and marginal urban population do not cover the cost of a balanced diet. Differences between urban and rural areas in nutritional status, quality of life, and in accessibility

*Numbers in brackets ([[]]) refer to the Bibliography at the end of this report.
of medical services result in great disparities in risk factors for the pregnant woman, as evidenced by the fact that 70 percent of maternal deaths occur in rural areas [8].

These alarming statistics and the resulting concern on the part of the Government have been translated into health care policy decisions that have significantly changed the overall picture in the health care sector.

Overview of the Health Care Sector

In April 1982, the Ministry of Health of the Government of Ecuador underwent an administrative reorganization in an attempt to integrate several health programs that were designated as priority programs. Until that time, goals and objectives for individual programs, such as maternal-child health, nutrition, etc., were elaborated independently. Each program was directed by a physician on the national level, who carried out all planning and administration and who was responsible for disseminating information to the provincial health directors regarding program planning and standards for delivery of clinical services. The provincial director and his staff were then responsible for planning and supervision of these programs at the provincial level. In the field clinics, the physician and a registered nurse or nurse's aide organized the programs on the basis of national and provincial guidelines and provided clinical services to the local patient population.

Large amounts of funding were obtained from international funding sources, such as the U.S. Agency for International Development, the Interamerican Development Bank, and the World Bank for construction of rural health care facilities. In addition, the country adopted a policy that requires 1 year of rural service in the Ministry's facilities from every graduate of a school of medicine or nursing. In spite of these moves, the coverage of the country's total population still ranges between 35-40 percent. For example, in the Province of Napo in the Amazon Region, the coverage of the population reached 37.5 percent and, of the province's 214 available hospital beds, only 36.7 percent were occupied at any given time. The infant mortality rate was 71.3 percent, compared with the national average of 70.9. Of reported deaths in the province, 64 percent of those of known etiology were preventable [45]. Tables 1 and 2 illustrate the 11 principal causes of infant mortality and general mortality, according to the most recent MSP statistics.

Although significant advances have been made in the past 5 to 10 years and although funding exists for the construction of
new facilities, utilization rates remain low (see Table 3). This would indicate serious problems in terms of internal efficiency. The reasons are numerous and can be linked to problems that are endemic in any underdeveloped country; i.e., widespread poverty, illiteracy, cultural diversity of the population, etc., all of which are essentially outside the sphere of control of the Ministry. Nevertheless, it is the consultant's hypothesis that planners at the national level fail to take into account many of the factors that operate at the local level. Hence, national strategies for health care delivery and community development are often unrealistic or, at best, are too theoretical and often are not implemented at the provincial and local levels [19].

By the same token, many realistic efforts at health planning fail due to the lack of trained personnel and necessary equipment at the local level. The educational background of the health professionals who serve in the rural areas is not responsive to national needs and includes little or no instruction in program development or administration. Graduates have little background in public health concepts and are ill prepared for practice in anything but a hospital setting.

There also appear to be certain weaknesses in the nation's public administration system that also affect the health care sector. These include ineffective budgetary processes or systems for control of resources; excessive centralization of authority at the national level coupled with regionalism at the provincial level; rigidity of personnel policies that preclude recruitment and retention of qualified personnel [43]; instability of decision-making processes due to political instability; lack of integration between technical and political levels of decision-making; proliferation of levels of predetermination and lack of effective mechanisms for coordination; and, last, a lack of accurate statistical information on which to base planning activities coupled with a faulty communications system due to the nature of the organization, geographic isolation, and lack of infrastructure [19]. These problems inhibit the translation of national health plans into action at the local level. The lack of qualified personnel and funding for such personnel hinders supervision and evaluation of programs in the field that would feed appropriate information back into the decision-making process.

*A survey conducted by the Grupo de Coordinacion del Desarrollo Administrativo, which is cited in Revista de Desarrollo Administrativo [19], reveals that of 450 administrators surveyed, 77 percent felt that the National Development Plans were too theoretical and at best provided administrators with only a frame of reference which was difficult to translate into plans of action.
Table 1. **PRINCIPAL CAUSES OF INFANT MORTALITY**

**IN ECUADOR, 1978**

<table>
<thead>
<tr>
<th>Causes of Death</th>
<th>Number</th>
<th>Per 1,000 Live Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastroenteritis and other diarrheal disorders</td>
<td>3,655</td>
<td>15.9</td>
</tr>
<tr>
<td>Bronchitis, emphysema, and asthma</td>
<td>1,966</td>
<td>8.5</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>1,370</td>
<td>5.9</td>
</tr>
<tr>
<td>Miscellaneous causes of perinatal mortality</td>
<td>1,330</td>
<td>5.8</td>
</tr>
<tr>
<td>Acute respiratory infections</td>
<td>675</td>
<td>2.9</td>
</tr>
<tr>
<td>Tetanus</td>
<td>589</td>
<td>2.6</td>
</tr>
<tr>
<td>Avitaminosis and other nutritional deficiencies</td>
<td>511</td>
<td>2.2</td>
</tr>
<tr>
<td>Anoxic and hypoxic conditions (not classified)</td>
<td>488</td>
<td>2.1</td>
</tr>
<tr>
<td>Whooping cough (pertussis)</td>
<td>441</td>
<td>1.9</td>
</tr>
<tr>
<td>Influenza</td>
<td>415</td>
<td>1.8</td>
</tr>
<tr>
<td>Other illnesses with poorly defined symptomatology</td>
<td>1,640</td>
<td>7.1</td>
</tr>
<tr>
<td>Others</td>
<td>1,752</td>
<td>7.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14,832</td>
<td>64.4</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Causes of death</th>
<th>Number</th>
<th>Per 10,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastroenteritis and other diarrheal disorders</td>
<td>6,892</td>
<td>88.2</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>3,755</td>
<td>48.1</td>
</tr>
<tr>
<td>Bronchitis, emphysema, and asthma</td>
<td>3,575</td>
<td>45.8</td>
</tr>
<tr>
<td>Senility (nonpsychotic)</td>
<td>3,249</td>
<td>41.6</td>
</tr>
<tr>
<td>Heart disease (general)</td>
<td>2,915</td>
<td>37.3</td>
</tr>
<tr>
<td>Cerebrovascular accidents (stroke)</td>
<td>1,863</td>
<td>23.8</td>
</tr>
<tr>
<td>Automobile accidents</td>
<td>1,817</td>
<td>23.3</td>
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<tr>
<td>Ischemic heart disease</td>
<td>1,386</td>
<td>17.7</td>
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<tr>
<td>Perinatal morbidity and mortality</td>
<td>1,330</td>
<td>17.0</td>
</tr>
<tr>
<td>Avitaminosis and other nutritional deficiencies</td>
<td>1,153</td>
<td>14.8</td>
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<tr>
<td>Other illnesses with poorly defined symptomatology</td>
<td>6,113</td>
<td>78.2</td>
</tr>
<tr>
<td>Other</td>
<td>22,553</td>
<td>288.6</td>
</tr>
<tr>
<td>Total</td>
<td>56,601</td>
<td>724.4</td>
</tr>
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</table>

Table 3. PRODUCTIVITY OF HEALTH SUBCENTERS IN ECUADOR, BY PROVINCE, 1981

<table>
<thead>
<tr>
<th>Province</th>
<th>Population Surveyed</th>
<th>Number of Clinic Visits Per Year</th>
<th>Provincial Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carchi</td>
<td>28,513</td>
<td>19,151</td>
<td>0.7</td>
</tr>
<tr>
<td>Imbabura</td>
<td>40,524</td>
<td>36,999</td>
<td>0.9</td>
</tr>
<tr>
<td>Pichinchina</td>
<td>101,216</td>
<td>75,146</td>
<td>0.7</td>
</tr>
<tr>
<td>Cotopaxi</td>
<td>63,075</td>
<td>27,771</td>
<td>0.4</td>
</tr>
<tr>
<td>Tungurahua</td>
<td>74,818</td>
<td>42,442</td>
<td>0.6</td>
</tr>
<tr>
<td>Bolivar</td>
<td>54,714</td>
<td>43,880</td>
<td>0.8</td>
</tr>
<tr>
<td>Chimborazo</td>
<td>80,283</td>
<td>34,652</td>
<td>0.4</td>
</tr>
<tr>
<td>Canar</td>
<td>41,383</td>
<td>36,670</td>
<td>0.9</td>
</tr>
<tr>
<td>Azuay</td>
<td>44,432</td>
<td>27,341</td>
<td>0.6</td>
</tr>
<tr>
<td>Loja</td>
<td>64,997</td>
<td>49,611</td>
<td>0.8</td>
</tr>
<tr>
<td>Esmeraldas</td>
<td>25,541</td>
<td>26,351</td>
<td>1.0</td>
</tr>
<tr>
<td>Manabi</td>
<td>158,662</td>
<td>55,301</td>
<td>0.3</td>
</tr>
<tr>
<td>Los Rios</td>
<td>114,457</td>
<td>18,240</td>
<td>0.2</td>
</tr>
<tr>
<td>Guayas</td>
<td>188,980</td>
<td>45,773</td>
<td>0.2</td>
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<tr>
<td>El Oro</td>
<td>60,085</td>
<td>30,936</td>
<td>0.5</td>
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<tr>
<td>Napo</td>
<td>6,194</td>
<td>4,842</td>
<td>0.8</td>
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<tr>
<td>Pastaza</td>
<td>3,548</td>
<td>2,429</td>
<td>0.7</td>
</tr>
<tr>
<td>Morona Santiago</td>
<td>8,831</td>
<td>8,392</td>
<td>1.0</td>
</tr>
<tr>
<td>Zamora</td>
<td>8,500</td>
<td>5,463</td>
<td>0.6</td>
</tr>
<tr>
<td>Galapagos</td>
<td>---</td>
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**Total**     | 1,168,753             | 591,390                          | 0.5                |

II. OBSERVATIONS AND FINDINGS: PHASE ONE
Observations and Findings: Phase One

Problem Statement

A recent field study by the consultant on the planning and implementation of maternal-child preventive health programs in rural Ecuador revealed a lack of educational orientation toward primary health care in institutions of higher learning in that country, with a resultant lack of skills in the area of community health. These educational deficiencies have had serious consequences for health care delivery in the rural areas; namely, low productivity of health establishments, a lack of case finding and followup activities, and the absence of health education programs in many areas -- all resulting in low utilization of Ministry of Health facilities.

Cultural taboos and health beliefs have also attributed to low utilization rates (for example, bed occupancy nationwide reaches 59.9 percent, while occupancy in rural provinces with large indigenous populations such as Napo is only 37 percent). In the absence of widespread cultural change in areas with predominantly indigenous populations, the imposition of a regimen of westernized medical care, which brings with it a distinct system of health beliefs, will meet with only limited success. Economic constraints in the traditional agricultural sector also inhibit utilization of services, as peasants can ill afford to lose a day's labor in the fields to attend a clinic, especially when low internal efficiency makes waiting times excessively long. Thus, for example, the goal of nine prenatal visits for the pregnant woman is probably unrealistic, as the peasant woman's main interest regarding her pregnancy is the sex of the baby and the expected date of confinement. The woman may seek treatment if she is ill during her pregnancy, but otherwise will probably not seek consistent prenatal care. Among the Quecha Indians, male attendance at a birth is a cultural taboo, and the practice of remaining in bed for 40 days postpartum inhibits compliance with postpartum checks.

Thus, there are difficulties in controlling for cultural factors in the study of the effects of the training of health care personnel on the utilization of services by rural populations. In addition, the health status of the rural population depends on a myriad of inputs, such as educational level, environmental factors, income, etc., and not solely on the type of health service provided. Therefore, the effects of increased training in community health on the internal efficiency of the service units (i.e., productivity) are more reliably measured and evaluated.

The consultant's previous field study revealed that many of the preventive functions which were conspicuously absent in the field would typically be performed by community health nurses with the aid of auxiliary staff, such as auxiliary nurses and community
health representatives. These functions include case finding, facilitation of entry into the health care system, monitoring of patient compliance, followup (home visits), data gathering and epidemiological control for immunizations and communicable diseases, health education and the facilitation of community participation, program planning and administration, and supervision of auxiliary personnel. While the development of skills in these areas by physicians would be ideal, the political climate at the Central University School of Medicine precludes such a major change in the focus of medical education at this time. It should also be noted that the School of Nursing at the Central University is subordinate to the School of Medicine, and, consequently, is not an ideal site for a pilot project.

Hence, through discussions with Ecuadorian health experts, the School of Nursing of the Catholic University was selected. It is an independent institution (i.e., lacks affiliation with a medical school) and has a commitment to updating its nursing curriculum to better meet the health care needs of the Ecuadorian population. Thus, this institution is more likely to be able to implement a pilot study on (1) the effects of a community health orientation in the education of nurses on the internal efficiency of Ecuadorian health establishments in the rural areas, and on (2) the compliance with objectives of primary health care as outlined by the World Health Organization at the Alma-Ata Conference of 1978.

The present project is comprised of three components: (1) Assessment of needs in the area of planning and implementation of primary health care programs and appraisal of the role of community health nursing in meeting these needs (carried out in June and July, 1982—see Ruffing, Karen L., "The Planning and Implementation of Maternal-Child Health Services in Rural Ecuador"); (2) the development of a community health nursing curriculum for the Pontificia Universidad Católica del Ecuador; and (3) the integration of graduates of this program into the health component of USAID's Integrated Rural Development Projects, which operate in the provinces of Manabi, Cotopaxi, and Chimborazo, as well as the development of a method for evaluating their impact on the functioning of the projects.

Review of the Literature

Helen Preston Glass in her article, "Research: An International Perspective"[14], attributes the dearth of international nursing research to the status of the nursing profession, which has traditionally been linked with the status of women. The subservient role in nursing dates of the Christian era when
nursing was identified with religious orders and their accompanying slave-life routines. During the Renaissance, the intellectual enlightenment reached few women. Only the well-to-do were involved in intellectual pursuits and few well-to-do women involved themselves in nursing. With the closing of many religious orders, nursing sank to its lowest intellectual level. It was not until the Florence Nightingale era that nursing became systematic and scientific.

Research is usually associated with a university education, preferably on the graduate level. Nursing education only recently has moved into the university setting; hence, the acquisition of research skills on the part of nurses is a fairly recent development. Research strategies that have evolved in Western cultures have traditionally centered on professionalism, educational development, and nursing administration; only recently has research focused on nursing science as it relates to health care in a broad context. These problems are further magnified in underdeveloped countries, where women continue to occupy a more traditional place in society and where access to a university education is linked to socioeconomic status as well as sex roles.

Manpower studies, which focus on the education and training of personnel as well as community response studies, are cited as two of several international research priorities in nursing identified by a World Health Organization consultant group in 1968 [14]. Several articles have appeared in recent years that focus on the education and training of community health nurses and the relationship between nursing science and public health science. The role of the community health nurse remains somewhat controversial, in that community health nursing is often defined as any nursing that occurs outside the hospital setting and that is family-centered and geared toward the delivery of primary health care. Kark takes this concept one step further and states that community or public health nursing should focus on the health of population groups, such as the community. In other words, the nursing process must be applied at the aggregate level. Kurtzman and co-authors advocate including community health nursing courses at the baccalaureate level to incorporate this focus on aggregates into their nursing philosophy. They state that this is especially important in underdeveloped countries that lack master's level programs in nursing [34]. According to an APHA survey, nursing service agencies as well as faculty members at universities throughout the United States cite the need for a "block experience" in CH for all students at the baccalaureate level, along with an integrated curriculum with exposure to CH at all levels to adequately prepare students to function effectively within agencies and in the community [51].

Nursing education is closely linked with the nurse's perception of her role within the health team. As nursing education
shifts from an apprenticeship system to institutions of higher learning, the role of the nurse in relation to the health team also changes. Of six nursing functions identified by WHO, five are independent. In addition to helping the client to carry out the therapeutic plan initiated by the physician, the nurse is responsible for maintaining a physical and psychological environment conducive to health, involving the patient and his family in his treatment, carrying out measures for the prevention of disease, health education, and, last, coordinating nursing with efforts of other members of the health team and of other community groups.

In other words, the nurse helps other members of the team to plan and carry out the total program of care. This requires a high degree of competence in decision-making that only the well informed, well educated nurse can achieve. However, nurses in developing countries have not kept pace with other members of the health team in terms of preventive health care. Taylor stated in 1934 that we must look to the liberal arts and sciences for principles upon which to base the entire educational program for nursing [44].

Meleis presents a developmental model for the nursing profession that delineates major issues in nursing in developing countries by means of the following paradigm:

I. The most significant social properties of the country.
II. Dimensions of health care.
III. Properties of nursing.
IV. Potential paradoxes due to the interaction between and among parts I, II and III.
V. The stated consequences of the consultations.

The consequences of developing a nursing model such as the one above is a curriculum design that can better meet the needs of a developing country [39].

Objectives

The objectives of this project, then, are the development of a model for community health nursing as well as an appropriate curriculum design. The graduates of the new program are to be placed in USAID's Rural Development Projects (DRI), as well as other sites which the Ministry of Health deems appropriate.
Preferably, these are the sites that are to be converted into microregions in the Ministry's efforts to regionalize health care delivery. Ideally, graduates could be placed in DRI projects and an equal number of control sites for purposes of evaluation. Evaluation of their effectiveness will be based on the hypothesis that the CHNs will increase the internal efficiency of the projects, which will increase utilization of services and the health status of the population. More appropriate diagnosis of the community as well as education regarding services and referrals to the appropriate level of care should increase attendances and thus lower the cost of services per person served and per attendance. Also, better organization of programs and increased supervision of auxiliary personnel should also increase productivity of the facilities in the microregion. More efficient epidemiological control in terms of case finding and followup of contagious diseases as well as better control of nutrition and immunization programs should lower the incidence of communicable diseases and other preventable causes of mortality and morbidity over the long term.

The design of the curriculum for CHNs will follow the "objectives model of curriculum design" presented by Gibson [13]. At the end of the course of study, the nurse will:

1. Be able to assess and meet the nursing needs of patients in the community.

2. Possess the ability to apply skills and knowledge acquired and impart them effectively to patients, relatives and other carers, staff, and the general public.

3. Be skilled in communications and in establishing and maintaining good relationships and be able to coordinate appropriate services for the patient, his family, and others involved in the delivery of care.

4. Have an understanding of management and organization principles within the multidisciplinary team and have developed a positive approach to further developments to meet health care needs.

Procedure

The attainment of these objectives will be reflected in overall program outcomes, as illustrated by annual evaluation of the following indicators of internal efficiency (see Table 4) and by assessment of program effectiveness by means of an instrument similar to the one used in the Maternal-Child Health Study (see exhibit 1).
Comparison of baseline morbidity and mortality statistics with annual statistics collected after project implementation should reveal trends in the effectiveness of preventive services and their impact on the health status of the population. The longitudinal nature of the study should correct for any initial bias in the data due to increased reporting of cases, rather than actual increased incidence of illness. The effects of other variables, such as better sanitation education, and increased agricultural production, which are indistinguishable from the effects of health services in a DRI project which incorporates these elements, can be controlled for by using other non-DRI areas as control sites. Also, initial community assessments done by DRI personnel can serve as baseline data and can be repeated after the CHNs have been functioning in the projects for a period of time.

The hard data should be complemented by reactive research. Questionnaires are not a feasible alternative, as even auxiliary nurses are required to have only a sixth-grade education. Hence, an interview strategy which would reveal aspects of program planning implementation, supervision, and evaluation similar to the one employed by the consultant for the maternal-child health study, would be the method of choice. The baseline data obtained through this study could be utilized for evaluation purposes, as graduates could be placed in six sites--three DRI projects (Quimiag, Jipijapa, and Salcedo) and three sites located near the DRI projects to control for geographic and cultural variance. The same interview format could be used to obtain data for other projected sites for the pilot project, according to MOH priorities. To control for rotation of medical personnel, one could interview physicians each year between now and the projected placement of the first CHN (3 years) and reinterview physicians for an equal number of years after placement. The other alternative would be to interview only permanent personnel, such as auxiliary nurses. Ideally, if the number of sites remains small (with the maximum being the three USAID projects used as test sites with three control sites), one could interview both physicians and permanent personnel, thereby gathering data from two professional levels within the health team. Also, the pretesting effect is thus eliminated for physicians, while it cannot be controlled for in the case of permanent personnel.
<table>
<thead>
<tr>
<th>Indicators</th>
<th>Quimiag</th>
<th>Salcedo</th>
<th>Jipijapa</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attendances per 100 inhabitants:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by Doctors</td>
<td>32.4</td>
<td>40.5</td>
<td>44.6</td>
</tr>
<tr>
<td>by Auxiliaries</td>
<td>52.4</td>
<td>79.3</td>
<td>46.8</td>
</tr>
<tr>
<td>by Promoters</td>
<td>N/A</td>
<td>81.6</td>
<td>N/A</td>
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<td><strong>Manpower/inhabitant:</strong></td>
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<td></td>
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<tr>
<td>Persons/doctor</td>
<td>4,366</td>
<td>4,737</td>
<td>3,176</td>
</tr>
<tr>
<td>Persons/auxiliary</td>
<td>1,320</td>
<td>954</td>
<td>1,588</td>
</tr>
<tr>
<td><strong>Cost per person served by:</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>S.C.S.</td>
<td>527</td>
<td>309</td>
<td>508.1</td>
</tr>
<tr>
<td>P.S.</td>
<td>468</td>
<td>297</td>
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<tr>
<td><strong>Cost per attendance:</strong></td>
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<td></td>
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<tr>
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<td>100.0</td>
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<tr>
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<td>22.4</td>
<td>N/A</td>
</tr>
</tbody>
</table>

S.C.S. = Health Subcenter
P.S. = Health Post

*1980 sucrés

+1980 sucrés - doesn't include investments

Source: USAID staff working paper:
"An Economic Analysis of Integrated Rural Development Projects."
Exhibit 1. INTERVIEW FORMAT UTILIZED FOR FIELD EVALUATION OF MATERNAL-CHILD HEALTH AND NUTRITION PROGRAMS

I. How do you organize and implement the Maternal-Child Program (MI) and the Nutritional Supplement Program (PAAMI) here?
   A. Coordination of programs
   B. Case findings
   C. Patient compliance and attendance
   D. Family planning
   E. Health education - sanitation
   F. Coordination between MI, PAAMI, and immunization (PAI) and control of common causes of morbidity programs
   G. Community Development and Outreach
      1. Organization of clubs
      2. Liaison with church
      3. Liaison with Integrated Rural Development Program (DRI)
      4. Use of health promoters

II. What type of supervision and assistance in administering these programs do you receive?
   A. Ease of communication with higher authorities

III. What administrative problems do you encounter with these programs?

IV. How are these programs received by the patient population?
   A. Cultural obstacles to compliance
   B. Health beliefs

V. Is there any cooperation between your agency and other government agencies?
   A. Social Security (IESS)
   B. Ministry of Education, etc.

-16-
OBSESSIONS AND FINDINGS: PHASE TWO

Work Plan

The technical assistance to be provided fell within the framework of the original work plan of the School of Nursing for its curriculum design. The role of the principal investigator/consultant, as stated in the scope of work, was to integrate community health nursing concepts into the curriculum design and the overall philosophy of the School of Nursing, to offer suggestions for revision of said curriculum, and to design a model for implementation and evaluation in DRI projects. Subsequent evaluation was to be carried out by USAID personnel or personnel designated by them. The planning methodology, objectives of the school, functions of nursing, terminal objectives of licensure, and the conceptual framework for the curriculum design were to have been completed, or in the process of completion, upon the consultant's arrival. A complete chronogram of the consultant's activities is included in Appendix I, and a brief description of each phase of the project follows.

The first working sessions were dedicated to reviewing the philosophy and objectives of the School of Nursing so that the subsequent curriculum development might be consistent with the goals of the institution. The Curriculum Committee also included in the phase of the project a brief description of the health needs of the country and had succeeded in meshing institutional priorities with current priorities in the health care sector. These tasks coincide with parts I and II of Meleis' paradigm, and successful completion of these tasks is essential if the curriculum is to respond to the needs of the country. Only minor revisions of the philosophy and objectives were necessary. This activity served to familiarize the author with the attitudes of the faculty toward primary health care and community nursing. It was discovered that, even though the philosophy and objectives were elaborated prior to the consultant's arrival and prior to the faculty's awareness of the precise focus that the consultant would suggest, the objectives pointed directly toward the development of a curriculum that emphasized primary health care. (See Appendix II for a list of the objectives of the baccalaureate program in nursing.)

Having accomplished this, the committee proceeded to review various curriculum designs. The curriculum model from the University of New Mexico consists of a nonintegrated, preprofessional level complemented by an integrated professional level based on systems theory. The professional level begins with the care of the client in dynamic equilibrium and moves gradually toward the care of the client in severe disequilibrium. These equilibrium states serve as elements of horizontal integration, while five strands (the health care system, the nurse as a professional, the
nursing process, communications, and the recipient of care) serve to integrate the curriculum vertically. The teaching strategy used is the modular system, whereby a different submodule corresponds to each point of intersection of the vertical and horizontal elements.

De Back states that, while there are few pure curriculum designs, most fall into one of four categories: the medical model (now obsolete); the interactions model, which focuses on the nurse-client relationship; the systems model, which considers the biophysical, environmental, psychological and sociocultural dimensions of the individual or group; and the developmental model, which focuses on the developmental tasks or stages of each client or group of clients. Most curricula are a combination of two or more of the above models and may have various structural elements [10]. The UNM curriculum is based on systems theory and is totally integrated by means of a modular teaching method. The value of a totally integrated curriculum is presently being debated by nurse educators, some of whom advocate a return to a more traditional presentation of material by medical specialties or subject areas (i.e., medical-surgical, psychiatric, or obstetrical nursing). They feel that, while ideally integrated curricula present a more nursing-oriented, holistic view of the client, unless very skillfully organized and implemented, they can cause confusion on the part of the students [24].

The curriculum of the Northern Illinois University School of Nursing is a more traditional modular curriculum organized by subject areas, with semi-integrated field experiences. This baccalaureate program has a strong community health component.

The University of Washington utilizes a nuclear curriculum organized into three strata, including nursing theory and practice and supporting subjects from the sciences and humanities. This curriculum has a strong developmental component as well as a strong emphasis on transcultural nursing. The Universidad de San Marcos in Peru also employs the developmental model, but is organized around an interactional theory by Imogene King, which focuses on crisis intervention. The Israelis have also experimented with developmental curricula in the training of 2-year rural community health nurses.

Semi-integrated curricula, such as those employed at the Universidad Nacional de Colombia and the Universidad Nacional Autónoma de México, were also examined, as was an example of the curriculum by objectives model, which is being utilized in Brazil.

After examining each design, brief cost-effectiveness analyses and feasibility studies were conducted prior to final selection of the model. Pros and cons of each design were
discussed and resources needed to implement each were listed and quantified where possible.

Project Results

It was decided that, while a traditional nuclear or modular curriculum was really not a significant step forward for the school since the current curriculum was of this type and based on a U.S. model, a curriculum based on a specific theory, such as the crisis theory model at San Marcos, was too narrowly focused to meet the needs of the Ecuadorian health care system. The consultant also felt that, while it is important to keep abreast of recent developments in educational theory in nursing, there is a danger associated with adopting a particular theory before its impact on students has been evaluated.

According to a study by De Back, there was no demonstrated difference in the ability to formulate nursing diagnoses between students from systems or developmental programs and those from programs which employed a mixed curriculum design [10]. It was decided that the new curriculum should combine elements from several designs to achieve a balance between utilization of innovations in curriculum design and feasibility of implementation, considering the level of preparation of the faculty and the resources available. These project activities correspond to stages III and IV of Meleis' paradigm.

The result of this process is a nursing curriculum with an interdisciplinary preprofessional level and four semi-integrated professional levels (see Appendix III). The curriculum is focused on community health, and even during the hospital phase of the professional level, emphasis is placed on epidemiology of disease, discharge planning, and community followup by means of home health care.

The Preprofessional Level consists in part of the traditional science and humanities courses, but has been redesigned to provide more background in areas that support the public health emphasis of the professional level: new courses in cultural anthropology, community development and an introduction to the health care system that concentrates on national health problems and policies, health economics, and the interrelationship between the multiplicity of agencies providing health services in the country. This level was elaborated upon after the professional level to assure that students received adequate preparation for subsequent professional course work. Courses are grouped to build on each other and follow a logical sequence from semester I through semester III. While the number of credit hours appears to be
excessive according to U.S. standards, they have actually been reduced from previous levels to allow the student more study time.

The other major change was the replacement of the English-language requirement with three levels of Quechua. This change should facilitate nurse-client communication in rural areas, as the majority of Ecuador's indigenous population is Quecha speaking. This requirement may be satisfied by the equivalent number of courses in the Shuar language for students who are interested in working with indigenous populations in the Amazon Region (Pastaza and Morona-Santiago Provinces). For more detailed information on the Preprofessional level, see Appendix IV. A brief description of the professional levels follows. Detailed information is contained in Appendix V.

The integrated portion of the curriculum begins with Professional Level I. The emphasis at this level is primary health care in the community setting. The content areas as well as the integrating strands (research, administration, nursing process, health education, mental health, and transcultural nursing) are taught in units that correspond to each phase of the life cycle. This approach follows the organization of primary care according to the life cycle, which was completed by the MSP in 1982 and which is presently being implemented in the rural and urban clinics [37]. Rather than teaching the practical component of the level in the morning and the theoretical component in the afternoon as is currently being done, the consultant recommended that theory be taught on three designated days, leaving two 8-hour days per week open for clinical practice. This method of organization would not only solve the problem of short afternoon attention spans of students (a current faculty complaint), but would also provide a higher ratio of clinical time to travel time. If theory were presented Monday through Wednesday and field experiences took place on Thursday and Friday, then theoretical concepts taught each week would be immediately put to practice in the field. In the case of rural clinical experiences, travel time could range between 30 minutes to 1 1/2 hours, but still provide adequate time in the field. Clinical experiences will also be arranged in marginal urban areas. A detailed presentation of Level I can be found in Appendix VI. An example of the microcurriculum for the newborn unit of this level is also given in Appendix VI. The duration of Level I is one semester.

Professional Level II encompasses hospital-based nursing theory and practice (see Appendix VII). As four distinct patient populations are to be served, the level is divided into four sub-units: Care of the acute and chronic pediatric and adult patient, care of the obstetrical patient, care of the terminally ill patient (a totally new area for Ecuadorian nursing schools), and
care of the patient with problems of physical and psychosocial integration. The latter category includes psychiatric nursing, but expands the focus to include physical rehabilitation of handicapped individuals and psychosocial rehabilitation of previously ignored patient populations (alcoholics, drug addicts, juvenile delinquents, etc.). The school plans to pursue coordination of efforts with other university departments, such as law, social work, education, etc., for social action projects by means of a grant from the Organization of American States.

This level follows the life cycle as closely as possible and divides theory and practice time in a manner similar to Level I. While the integrating strands are basically the same in Levels I and II, it is in Level II that the nursing process takes on more importance. Basic assessment, diagnosis, planning, intervention, and evaluation skills are taught in Level I and exercised while caring for the "healthy" population. In Level II, assessment and diagnosis skills are sharpened and the planning and evaluation of the care of the sick individual are emphasized. While the nursing process is currently taught in Ecuadorian schools of nursing, it is not taught as a systematic means of administering care, nor is it uniformly applied throughout the course of studies.

The consultant gave a seminar/work session to members of the faculty on "The Nursing Process: Theory and Applications," which emphasized the benefits of utilizing the nursing process as a way of organizing the educational program, of facilitating the transition of the nursing graduate from student to professional, and of evaluating the curriculum. Appendices VIII and IX illustrate examples of assessment tools currently being used in the United States in hospital-based and community-based practice. The historical antecedents of the nursing process (i.e., decision theory, systems theory), current applications in the United States, and possible applications in Ecuador were discussed. An assessment exercise was included to illustrate the practical applications of the process. The nursing process was subsequently adopted by the faculty as the primary teaching strategy to be employed in the new curriculum. The participation of all faculty members in the curriculum development process, as illustrated by the above encounter, was elicited for each phase. Thus the model being discussed received faculty and university administrative approval prior to the consultant's departure.

Professional Level III focuses on nursing practice within the broader context of community development. The emphasis is on the application of the nursing process at the aggregate level. Strong epidemiological and research components are included. The administration of actual Government programs as well as the development of new health promotion plans are stressed. Appendix
X presents a schematic representation of Level III, while Appendix XI presents terminal performance objectives and a course outline complete with bibliography for each level. Terminal performance objectives for Levels I, II, and IV are to be elaborated upon by the faculty. It should be noted here that, while student performance in the professional level will be evaluated by means of a traditional grading scale, evaluation during the professional levels will be by objectives and on a pass/fail basis. Students must repeat the particular unit in which a "fail" was obtained until they master these skills. Unacceptable candidates for the title of RN will be screened out prior to the initiation of the professional phase of training. The duration of Level III is one semester.

As Appendix XII illustrates, Level IV consists of a professional option. While the current literature warns against specialization at the baccalaureate level [2], the faculty was of the opinion that the opportunity to pursue a special area of interest once basic nursing skills were mastered was appropriate at this stage in the student's education. As emphasis at this level was placed on applied research, health education, and advanced program administration, it was determined that these skills could be learned and applied in a variety of settings. Therefore, the professional option concept was consistent with overall program goals. As a senior thesis is required for graduation in any baccalaureate program in Ecuador, it was decided that the research proposal or change project, which is to serve as the basis for the thesis, should be developed during this semester (including strategies for project implementation and testing of any instruments) and implemented during the obligatory year of rural service.

Project implementation during the rural rotation has the following advantages:

1. It encourages nursing research, which is above and beyond the customary descriptive theses. (Note: Students receive a semester course in nursing research during the Preprofessional Level.)

2. It lends purpose to year of rural service, which has historically been characterized by a "get it over with" attitude on the part of the student, with resultant low employee productivity.

3. Joint supervision of research by PUCE faculty and MSP officials should ease the role transition from student to practicing professional (supervision of rural nurses has been practically nonexistent to date).
4. The gap between the education and service sectors should be narrowed, as research findings or results of change projects will be shared with MSP officials by faculty and should provide the MSP with valuable feedback into the program planning process.
IV. RECOMMENDATIONS FOR PROGRAM IMPLEMENTATION AND EVALUATION
General guidelines for curriculum implementation are outlined in Appendix XIII. Detailed strategies for implementation of each phase of the design form part of the schematic representation of the curriculum in Appendix V. These documents formed the basis for the overall development plan for the School of Nursing contained in Appendix XIV. Here, the plans for implementation of the new design, complete with a list of resources required for each phase, are presented as they relate to other objectives of the school. The information contained in these appendices will not be repeated here; however, it should be mentioned that the meetings with government and university officials resulted in unanimous approval of the program and strong support on the part of USAID, CONADE, and MSP officials for the incorporation of its graduates into the DRI projects, according to the model presented in Chapter II of this report. Possibilities for project support and funding were discussed and the following four grant proposals are in the process of elaboration:

1. A proposal to the Kellogg Foundation to extend the curriculum development grant an additional 2 years to complete the curriculum implementation phase. The implementation strategy will include an integrated theory/practice or docente/asistencial project for the rural areas.

2. A proposal to the Fulbright Commission for a technical adviser to the Association of Ecuadorian Nursing Schools to evaluate the curricula of the other six schools of nursing, utilizing the staff of the Research Committee of the PUCE. It is hoped that the evaluation will serve as a basis for standardization of the curricula. Follow-up studies of placement of nursing graduates are also planned.

3. A proposal to USAID for staff training at the master's level for two faculty members, as well as short-term intensive training in community health, transcultural nursing, and program administration for all faculty members as part of the proposal for implementation of the curriculum in the DRI projects. Funding for operations research to evaluate the impact of the pilot project is also being requested.

4. A proposal to the Organization of American States for a social action project to be undertaken in conjunction with several other academic departments of the PUCE. One such project would consist of an integrated health,
continuing education, and client advocacy program in the country's prisons.

In evaluating the success of a curriculum change, both objective and subjective data should be used. In the United States, objective data such as student performance on state board exams can be used to evaluate the effectiveness of a specific nursing program in preparing students for professional practice. Since no licensure exam exists in Ecuador, another method for evaluating the end product of a nursing program must be devised.

Of the five steps in the nursing process, the nursing diagnosis is the most important, for an accurate nursing diagnosis is an illustration of an accurate data gathering and assessment process and serves as the basis for all nursing intervention. A study by De Back utilizes analysis of the nursing diagnosis as a means of evaluating the nursing curriculum. The following three characteristics are considered: (1) Is the diagnosis client- rather than disease-centered? (2) Is it stated in terms of client concerns and levels of competence or dysfunction? and, (3) Is the statement of client concern competence or dysfunction something that can be altered or maintained through nursing action? These characteristics differentiate a nursing diagnosis from a medical diagnosis and, thus, differentiate a curriculum based on nursing theory from one based on the medical model [10].

The consultant proposes the use of a longitudinal study of senior nursing care plans to be conducted by the Research Committee and which begins before the implementation of the new curriculum, to compare the effectiveness of the two curricula in terms of their ability to convey knowledge of the nursing process which can be applied in practice.

The other objective of the new curriculum is to integrate theory and practice early in the student's program of studies to increase the students' level of confidence in their ability to practice nursing effectively upon graduation. Koehler utilized survey research to ascertain California State University students' levels of confidence in their ability to perform certain nursing functions at particular points in their program of studies, to evaluate whether the curriculum change had achieved this objective. Students from both the old and the new programs were surveyed, and results were cross-tabulated to determine whether these functions were being performed comfortably at an earlier phase in the program of studies after the curriculum change was implemented. The skills evaluated were ability to make independent judgments that were correctly appraised by personnel in the clinical areas, ability to perform skills requiring manual dexterity, ability to think creatively in problem-solving nursing situations, and the level of confidence in nursing practice [31].

-26-
The final phase of the evaluation process should measure the extent to which the new community health orientation of the curriculum satisfies the needs of the service sector. This can be measured by means of performance evaluations based on the community health nursing skills listed in Appendix XV.

The impact that these nursing graduates have on the Integrated Rural Development Program can be evaluated by means of the operations research model presented in the Purpose and Objectives sections of this report.
### APPENDIX I

**PONTIFICIA UNIVERSIDAD CATOLICA DEL ECUADOR**

**FACULTAD DE ENFERMERIA**

**CHRONOGRAM OF ACTIVITIES WITH TECHNICAL ADVISOR**

<table>
<thead>
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<th>DECEMBER</th>
<th>JANUARY</th>
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**ACTIVITY**

- Orientation
- Revision of institutional goals
- Revision of objectives of baccalaureate education
- Revision of theoretical framework for curriculum development
- Revision of curriculum models
- Selection of curriculum design
- Elaboration of curriculum design, selection of content areas and field experience sites
- Strategies for curriculum implementation
- Feasibility study
- Curriculum evaluation
- Development plan for the School of Nursing
- Visit to possible field experience sites
- Formulation of possible multisectoral projects
- Professional profile of the community health nurse
- Required follow-up

### MEETINGS AND CONFERENCES WITH FACULTY

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</table>

**ACTIVITY**

- Working Session: The Nursing Process - Theory and Applications - Ruffing
- Institutional goals and objectives for baccalaureate nursing education
- Presentation of curriculum design - dialogue

**MEETINGS WITH OTHER OFFICIALS**

- Dr. L. Izurieta, Facultad de Pedagogía, Technical Advisor - Curriculum Design
- Dr. Jose Castro, Ministry of Health
- MAP International
- Dr. Pedersen, Centro de Estudios Transculturales
- Save the Children Alliance
- HCJB/Vozandes
- Minister of Health/CONADE/USAID/WHO
- University Officials
APPENDIX II

PONTIFICIA UNIVERSIDAD CATOLICA DEL ECUADOR

SCHOOL OF NURSING

INSTITUTIONAL OBJECTIVES

To educate nursing personnel who have the capacity to:

I. Promote, defend and apply Christian ethics and human rights in the health field.

II. Provide nursing care to the individual, the family and the community, based on biophysical, psycho-social, spiritual and cultural needs.

III. Apply principles of primary, secondary and tertiary care.

IV. Carry out measures which satisfy the health needs and which maximize the potential of the Ecuadorian population.

V. Administer nursing care in the service sector.

VI. Promote the active participation of the individual, the family and the community in the identification and solution of their own problems.

VII. Work within the multidisciplinary health team and coordinate the resources of the community in the implementation of multisectoral programs.

VIII. Plan, implement and evaluate preventive, curative and rehabilitative health programs for the Ecuadorian population, as well as programs in continuing education for health professionals.

IX. Participate in research efforts in the fields of nursing and health care.

X. Promote constructive change within the health care system.
APPENDIX III

PONTIFICIA UNIVERSIDAD CATOLICA DEL ECUADOR
FACULTAD DE ENFERMERIA
CURRICULUM DESIGN OF THE BACCALAUREATE PROGRAM

RURAL HEALTH ROTATION

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</tr>
</tbody>
</table>

IV. PROFESSIONAL OPTIONS

| COMMUNITY HEALTH |

III. COMMUNITY DEVELOPMENT

II. Care of the individual, family, and community with moderate, severe, and chronic diseases.

I. Care of the individual, family, and community in dynamic equilibrium.

PRE-PROFESSIONAL LEVEL

LIFE CYCLE

KEY:

// Horizontal and Vertical Structural Elements

--- Central Axis

--- Integrating Strand
APPENDIX IV

PRE-PROFESSIONAL LEVEL

SEMESTER I

BIOLOGY
CHEMISTRY
LANGUAGE
RELIGION
PSYCHOLOGY
CULTURAL ANTHROPOLOGY
THE HEALTH CARE SYSTEM
NUTRITION

SEMESTER II

MICROBIOLOGY
PARASITOLOGY
ANATOMY AND PHYSIOLOGY I
LANGUAGE
RELIGION
INTERPERSONAL COMMUNICATION
INTRODUCTION TO COMMUNITY DEVELOPMENT

SEMESTER III

ANATOMY AND PHYSIOLOGY II
ANATOMY AND PHYSIOLOGY I
LANGUAGE
RELIGION
EDUCATIONAL PSYCHOLOGY
INTRODUCTION TO NURSING
STATISTICS
NURSING RESEARCH
## APPENDIX IV (Continued)

### COURSES IN THE PRE-PROFESSIONAL LEVEL

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>SECOND SEMESTER</th>
<th>THIRD SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSE</td>
<td>CREDIT HOURS</td>
<td>COURSE</td>
</tr>
<tr>
<td>Biology</td>
<td>3</td>
<td>Microbiology &amp; Parasitology</td>
</tr>
<tr>
<td>Chemistry</td>
<td>3</td>
<td>Anatomy &amp; Physiology I</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
<td>Language</td>
</tr>
<tr>
<td>Religion</td>
<td>3</td>
<td>Religion (Philosophy)</td>
</tr>
<tr>
<td>Psychology</td>
<td>3</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>Cultural Anthropology</td>
<td>3</td>
<td>Introduction to Community Development</td>
</tr>
<tr>
<td>The Health Care System</td>
<td>3</td>
<td>Nutrition</td>
</tr>
</tbody>
</table>

**Total Credit Hours:** 23 **Total Credit Hours:** 24 **Total Credit Hours:** 23

### ELECTIVE COURSES (Students are to choose one elective per semester during the Professional Level.)

- Art Appreciation
- Physical Education
- Sociology
- Anthropology
- Economics
- English
- Speech
- Therapy
- Occupational Health
- Oncology Nursing
- Geriatric Nursing
- School Health

CF/ma. 5/1/83
### APPENDIX V

#### SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

**LEVEL: 1. CARE OF THE INDIVIDUAL, FAMILY AND COMMUNITY IN DYNAMIC EQUILIBRIUM.**

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>FUNCTIONS</th>
<th>SKILLS</th>
<th>PREREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Newborn, infant, preschool, school-age, adolescent, young adult*, mature adult, geriatric patient.</td>
<td>1. Physical, psychological, emotional, socio-cultural and environmental assessment of the individual, family and community.</td>
<td>- Ability to work within interdisciplinary team.</td>
<td>- The Health Care System - Interpersonal Communication - Anthropology - Biostatistics - Anatomy and Physiology I &amp; II</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Communication, observation and interviewing skills.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Utilization of resources and referral systems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Collection of data and utilization of diagnostic and evaluative instruments.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Knowledge of cultural characteristics of patient population.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Maintain or promote the health status of the individual, family and community.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Detection and correction of uncomplicated morbidity</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>- Identification of risk factors.</td>
<td>- Biology - Chemistry - Psychology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Knowledge of pathophysiology and epidemiology of uncomplicated morbidity, detection and prevention of most common types of illness and accidents, first aid, information systems charting and referral, collection of laboratory specimens and interpretation of results, asepsia and antisepsia, pharmacology.</td>
<td>- Parasitology - Microbiology - Educational Psychology - Nutrition - Introduction to Community Development - Language (Quechu) - Introduction to Nursing - Principles of Research</td>
</tr>
</tbody>
</table>

### SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

**LEVEL: 1. CARE OF THE INDIVIDUAL, FAMILY AND COMMUNITY IN DYNAMIC EQUILIBRIUM** (Population A continued)

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>FIELD EXPERIENCE SITES</th>
<th>DEMANDS TO BE MET</th>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Growth and Development</td>
<td>- Day Care Centers</td>
<td>NURSING SCHOOL:</td>
<td>Need faculty member with specialization in transcultural nursing.</td>
</tr>
<tr>
<td>- Nursing Process</td>
<td>- Schools</td>
<td>- Interinstitutional agreements</td>
<td></td>
</tr>
<tr>
<td>- Pharmacology I/Uncomplicated Morbidity</td>
<td>- Fathers' Committees</td>
<td>- Coordination within the university</td>
<td></td>
</tr>
<tr>
<td>- Nursing Procedures</td>
<td>- High Schools</td>
<td>- Selection of field experience sites</td>
<td></td>
</tr>
<tr>
<td>- Principles of Epidemiology</td>
<td>- Community:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Pathophysiology</td>
<td>- Homes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- First Aid</td>
<td>- Neighborhoods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Principles of Administration</td>
<td>- Mothers' Clubs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Administration of medications</td>
<td>- Sports Clubs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Mental Health</td>
<td>- Nursing Homes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Health Centers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Sub Centers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Outpatient Departments</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Factories</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

### LEVEL: II. CARE OF THE INDIVIDUAL, FAMILY AND GROUP WITH MODERATE, SEVERE, CHRONIC OR TERMINAL ILLNESS

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>FUNCTIONS</th>
<th>SKILLS</th>
<th>PREREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Medical-surgical:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gastrointestinal, trauma, urology, nephrology, cardio-pulmonary, otolaryngology, hematology.</td>
<td>1. Assessment and nursing diagnosis.</td>
<td>- Admission history, assessment by systems and functions, interpretation of test results within specialty, nursing diagnosis, assisting with diagnostic tests.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Care planning.</td>
<td>- Preparation of care plan with measurable short and long-term objectives.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Nursing intervention.</td>
<td>- Appropriate nursing care for dysfunctions in following: sensory, environmental, motor, integumentary, nutrition, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Evaluation.</td>
<td>- Care and procedures relating to diseases of various organ systems (musculo-skeletal, cardio-vascular, digestive, respiratory, genito-urinary)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Follow-up.</td>
<td>- Specialized assessment</td>
<td></td>
</tr>
</tbody>
</table>

### SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>FIELD EXPERIENCE SITES</th>
<th>DEMANDS TO BE MET</th>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pathophysiology (complex pathology)</td>
<td>General and specialty hospitals</td>
<td>NURSING SCHOOL:</td>
<td></td>
</tr>
<tr>
<td>- Specific Diagnostic and Laboratory Tests</td>
<td>Private clinics and institutions, according to specialty</td>
<td>- Selection of field experience sites</td>
<td></td>
</tr>
<tr>
<td>- Nursing Procedures according to specialty</td>
<td></td>
<td>PERSONNEL:</td>
<td></td>
</tr>
<tr>
<td>- Nutrition</td>
<td></td>
<td>- Physical assessment</td>
<td></td>
</tr>
<tr>
<td>- Pharmacology</td>
<td></td>
<td>- Admission history</td>
<td></td>
</tr>
<tr>
<td>- Administration:</td>
<td></td>
<td>- Operation of special equipment</td>
<td></td>
</tr>
<tr>
<td>- Decision-making</td>
<td></td>
<td>- Familiarity with diagnostic tests and special procedures</td>
<td></td>
</tr>
<tr>
<td>- Problem solving</td>
<td></td>
<td>- Nursing process</td>
<td></td>
</tr>
<tr>
<td>- Information Systems</td>
<td></td>
<td>- Decision theory, problem-solving strategies</td>
<td></td>
</tr>
<tr>
<td>- Referral System</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Utilization of Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Ethical-Legal Aspects of Nursing Practice</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Health Education - individual and family</td>
<td></td>
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</tr>
</tbody>
</table>
### APPENDIX V Cont. SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

**LEVEL: II. CARE OF THE INDIVIDUAL, FAMILY AND GROUP WITH MODERATE, SEVERE, CHRONIC OR TERMINAL ILLNESS.**

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>FUNCTIONS</th>
<th>SKILLS</th>
<th>PREREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C.</strong> Hospitalized individuals and groups (family centered nursing).</td>
<td>1. Assessment and nursing diagnosis (including high risk patient).</td>
<td>- Admission history</td>
<td>- Hospitalization history and functions</td>
</tr>
<tr>
<td>Maternal-child health: . Normal pregnancy . High risk mother and newborn</td>
<td></td>
<td>- Assessment of organ systems and functions</td>
<td>- Assisting with diagnostic tests</td>
</tr>
<tr>
<td></td>
<td>2. Care planning.</td>
<td>- Interpretation of specific diagnostic tests</td>
<td>- Nursing theory, nursing diagnosis</td>
</tr>
<tr>
<td></td>
<td>3. Nursing intervention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Evaluation.</td>
<td>- Prenatal control of high risk patient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Follow-up.</td>
<td>- Assisting with care of patient undergoing normal delivery and puerperium</td>
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<tr>
<td></td>
<td></td>
<td>- Care of high risk labor and delivery and post-partum patients</td>
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<tr>
<td></td>
<td></td>
<td>- Care of high risk newborn</td>
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</tbody>
</table>

### SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

**LEVEL: II. CARE OF THE INDIVIDUAL, FAMILY AND GROUP WITH MODERATE, SEVERE, CHRONIC OR TERMINAL ILLNESS.**

**Population C cont'd**

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>FIELD EXPERIENCE SITES</th>
<th>DEMANDS TO BE MET</th>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Maternal-child Nursing</td>
<td>- Maternity Hospital Isidro Ayora</td>
<td>NURSING SCHOOL:</td>
<td></td>
</tr>
<tr>
<td>- Administration</td>
<td>- Obstetrical units</td>
<td>- Selection of field experience sites (especially new private sector sites)</td>
<td></td>
</tr>
<tr>
<td>- Transcultural Nursing (as it relates to maternal-child health)</td>
<td>- Private clinics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Pharmacology</td>
<td>- Community follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Pathophysiology (Obstetrics and Gynecology)</td>
<td></td>
<td>PERSONNEL:</td>
<td></td>
</tr>
<tr>
<td>- Health Education and Environmental Health</td>
<td></td>
<td>- Transcultural nursing in maternal-child health</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX V Cont.

**SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM**

**LEVEL II: CARE OF THE INDIVIDUAL, FAMILY AND GROUP WITH MODERATE, SEVERE, CHRONIC OR TERMINAL ILLNESS. Population D.**

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>FUNCTIONS</th>
<th>SKILLS</th>
<th>PREREQUISITES</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. Individuals and groups with problems in the areas of physical and psycho-social integration:</td>
<td>1. Assessment and nursing diagnosis.</td>
<td>- Physical, psycho-social, environmental assessment (knowledge of instruments used in psycho-social assessment)</td>
<td></td>
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<tr>
<td>- Physical handicap</td>
<td></td>
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<tr>
<td>- Loss of hearing or vision</td>
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<tr>
<td>- Mental or emotional handicap</td>
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<td></td>
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<tr>
<td>- Difficulties with communication</td>
<td></td>
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</tr>
<tr>
<td>- Neurotic and psychotic disorders</td>
<td></td>
<td></td>
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<tr>
<td>- Abandoned children</td>
<td></td>
<td></td>
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<tr>
<td>- Alcoholism and drug addiction</td>
<td></td>
<td></td>
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<tr>
<td>- Delinquency</td>
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<td></td>
<td></td>
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<tr>
<td>- Prostitution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Care planning.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Intervention.</td>
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<tr>
<td>4. Evaluation.</td>
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<td></td>
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<tr>
<td>5. Follow-up.</td>
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</tbody>
</table>

**SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM**

**LEVEL II: CARE OF THE INDIVIDUAL, FAMILY AND GROUP WITH MODERATE, SEVERE, CHRONIC OR TERMINAL ILLNESS. (Population D cont')**

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>FIELD EXPERIENCE SITES</th>
<th>DEMANDS TO BE MET</th>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Mental Health and Psychiatric Nursing</td>
<td>Youth homes</td>
<td>- Coordination with other university departments for social action projects (such as Social Service, Law, Psychology, Medical Technology, Sociology, Education).</td>
<td></td>
</tr>
<tr>
<td>- Social Psychology</td>
<td>Institutions for the handicapped</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Psycho-pharmacology</td>
<td>Psychiatric hospitals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Group Dynamics</td>
<td>Geriatric institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Leadership</td>
<td>Sub center at Luluncoto</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Utilization of Resources</td>
<td>Prisons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Maximization of Resources)</td>
<td>Reform schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Ethical-legal Aspects</td>
<td>Rehabilitation centers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work in Multidisciplinary Group</td>
<td>Alcoholics Anonymous groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Transcultural Nursing</td>
<td>San Juan de Dios Rehabilitation Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Health Education</td>
<td>Home for single mothers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Rehabilitation</td>
<td>Nursing Schools:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX V Cont.

### Level: II. Care of the Individual, Family and Group with Moderate, Severe, Chronic or Terminal Illness. Population E.

### Population E.

#### Individuals with chronic or terminal illness:

**a) Chronic**

1. Assessment and nursing diagnosis.
   - Physical assessment by systems and functions; emphasis on identifying psychosocial and spiritual needs.

2. Planning.
   - Preparation of care plans in close collaboration with other members of the health team.
   - Recognition of cultural beliefs regarding chronic and terminal illness.

3. Intervention.
   - Implement care plan for individual or group utilizing institutional and community resources.

4. Evaluation.
   - Evaluate nursing interventions as well as the input of other sectors.
   - Use of results as input into continuous planning.

5. Follow-up.
   - Elaboration of plans for continuous care with measurable objectives.

**b) Care of the dying patient**

1. Care of the patient.
   - Care of the dying patient and his family, taking into account spiritual and cultural values.
   - Participation of the family in the patient's care.
   - Care of the patient who has expired.
   - Use of information and referral systems.

2. Evaluation.
   - Evaluation of nursing intervention.
   - Utilization of results.

### Schematic Representation of Rural Community Health Nursing Curriculum

**Level: II. Care of the Individual, Family and Group with Moderate, Severe, Chronic or Terminal Illness. (Population E cont'd)**

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>FIELD EXPERIENCE SITES</th>
<th>DEMANDS TO BE MET</th>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pathology</td>
<td>- General and specialty hospitals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Administration</td>
<td>- Specialty clinics and private institutions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Ethical-legal Aspects</td>
<td>- Homes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Psychology</td>
<td>NURSING SCHOOL:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Crisis Intervention</td>
<td>- Coordination within the university and with other sectors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Transcultural Nursing</td>
<td>PERSONNEL:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Administration of Medication</td>
<td>- Specialization in the care of chronic and terminal patients.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Working in Multidisciplinary Teams</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Health Education for Individuals and Families</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Death and Dying</td>
<td>- Health care facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Crisis Situations</td>
<td>- Community</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Ethical-legal Aspects</td>
<td>NURSING SCHOOL:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Information and Referral Systems</td>
<td>- Continuing education; spiritual and psychosocial care of the terminal patient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Health Education for Individuals and Families</td>
<td>PERSONNEL:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX V Cont. SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

#### LEVEL: III. COMMUNITY DEVELOPMENT

<table>
<thead>
<tr>
<th>POPULATION</th>
<th>FUNCTIONS</th>
<th>SKILLS</th>
<th>PREREQUISITES</th>
</tr>
</thead>
</table>
| - Communities  
- Families  
- Individuals | 1. Community diagnosis. | - Analysis of the community as a field for nursing actions.  
- Definition of the community as a system and identification of subsystems.  
- Analyze patterns of interactions between subsystems.  
- Evaluate the impact of the different factors which affect the health of individuals, families, communities.  
- Evaluation of the family structure within the cultural context of the community.  
- Identification of available resources.  
- Preparation of the diagnosis - Program planning based on community diagnosis.  
- Identification, organization and utilization of resources  
- Administration of programs based on the criteria of cost benefit and cost effectiveness.  
- Development of programs for health protection and promotion.  
- Use of interpersonal communication skills.  
- Use of mechanisms of motivation to achieve community participation.  
- Application of transcultural nursing concepts.  
- Identification of areas where change is needed.  
- Identification of positive and negative forces affecting the change process.  
- Utilization of different strategies for change.  
- Modification of health-related behavior.  
- Knowledge of research methodology.  
- Conduct research incorporating ethical-legal issues.  
- Elaboration of small research projects. | - All functions require background in decision theory, problem solving, and work within the multidisciplinary team. |
| 2. Planning, organization, implementation and evaluation of programs. | - Analysis of the community as a field for nursing actions.  
- Definition of the community as a system and identification of subsystems.  
- Analyze patterns of interactions between subsystems.  
- Evaluate the impact of the different factors which affect the health of individuals, families, communities.  
- Evaluation of the family structure within the cultural context of the community.  
- Identification of available resources.  
- Preparation of the diagnosis - Program planning based on community diagnosis.  
- Identification, organization and utilization of resources  
- Administration of programs based on the criteria of cost benefit and cost effectiveness.  
- Development of programs for health protection and promotion.  
- Use of interpersonal communication skills.  
- Use of mechanisms of motivation to achieve community participation.  
- Application of transcultural nursing concepts.  
- Identification of areas where change is needed.  
- Identification of positive and negative forces affecting the change process.  
- Utilization of different strategies for change.  
- Modification of health-related behavior.  
- Knowledge of research methodology.  
- Conduct research incorporating ethical-legal issues.  
- Elaboration of small research projects. | - All functions require background in decision theory, problem solving, and work within the multidisciplinary team. |
| 3. Community organization and participation in health care. | - Analysis of the community as a field for nursing actions.  
- Definition of the community as a system and identification of subsystems.  
- Analyze patterns of interactions between subsystems.  
- Evaluate the impact of the different factors which affect the health of individuals, families, communities.  
- Evaluation of the family structure within the cultural context of the community.  
- Identification of available resources.  
- Preparation of the diagnosis - Program planning based on community diagnosis.  
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- Use of interpersonal communication skills.  
- Use of mechanisms of motivation to achieve community participation.  
- Application of transcultural nursing concepts.  
- Identification of areas where change is needed.  
- Identification of positive and negative forces affecting the change process.  
- Utilization of different strategies for change.  
- Modification of health-related behavior.  
- Knowledge of research methodology.  
- Conduct research incorporating ethical-legal issues.  
- Elaboration of small research projects. | - All functions require background in decision theory, problem solving, and work within the multidisciplinary team. |
| 4. Promotion of constructive change. | - Analysis of the community as a field for nursing actions.  
- Definition of the community as a system and identification of subsystems.  
- Analyze patterns of interactions between subsystems.  
- Evaluate the impact of the different factors which affect the health of individuals, families, communities.  
- Evaluation of the family structure within the cultural context of the community.  
- Identification of available resources.  
- Preparation of the diagnosis - Program planning based on community diagnosis.  
- Identification, organization and utilization of resources  
- Administration of programs based on the criteria of cost benefit and cost effectiveness.  
- Development of programs for health protection and promotion.  
- Use of interpersonal communication skills.  
- Use of mechanisms of motivation to achieve community participation.  
- Application of transcultural nursing concepts.  
- Identification of areas where change is needed.  
- Identification of positive and negative forces affecting the change process.  
- Utilization of different strategies for change.  
- Modification of health-related behavior.  
- Knowledge of research methodology.  
- Conduct research incorporating ethical-legal issues.  
- Elaboration of small research projects. | - All functions require background in decision theory, problem solving, and work within the multidisciplinary team. |
| 5. Research regarding the needs of the community and participation in projects. | - Analysis of the community as a field for nursing actions.  
- Definition of the community as a system and identification of subsystems.  
- Analyze patterns of interactions between subsystems.  
- Evaluate the impact of the different factors which affect the health of individuals, families, communities.  
- Evaluation of the family structure within the cultural context of the community.  
- Identification of available resources.  
- Preparation of the diagnosis - Program planning based on community diagnosis.  
- Identification, organization and utilization of resources  
- Administration of programs based on the criteria of cost benefit and cost effectiveness.  
- Development of programs for health protection and promotion.  
- Use of interpersonal communication skills.  
- Use of mechanisms of motivation to achieve community participation.  
- Application of transcultural nursing concepts.  
- Identification of areas where change is needed.  
- Identification of positive and negative forces affecting the change process.  
- Utilization of different strategies for change.  
- Modification of health-related behavior.  
- Knowledge of research methodology.  
- Conduct research incorporating ethical-legal issues.  
- Elaboration of small research projects. | - All functions require background in decision theory, problem solving, and work within the multidisciplinary team. |

### SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

#### LEVEL: III. COMMUNITY DEVELOPMENT

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>FIELD EXPERIENCE SITES</th>
<th>DEMANDS TO BE MET</th>
<th>OBSERVATIONS</th>
</tr>
</thead>
</table>
| - Program Administration  
- Health Economics  
- The Health Care Team  
- Communications  
- Epidemiological Control  
- Transcultural Nursing  
- Health Education and Environmental Sanitation | - Community groups  
- Families  
- Health centers  
- Outpatient departments  
- Educational institutions  
- Provincial health offices | - Coordination with other disciplines.  
- Committee for supervision of research and projects in community health.  
- Working in the community setting.  
- Program administration.  
- Epidemiological investigation. | NURSING SCHOOL:  
PERSONNEL: |
## SCHEMATIC REPRESENTATION OF RURAL COMMUNITY HEALTH NURSING CURRICULUM

<table>
<thead>
<tr>
<th>REQUIREMENTS</th>
<th>FIELD EXPERIENCE SITES</th>
<th>DEMANDS TO BE MET</th>
<th>OBSERVATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Specialization in theory and practice in an area of the student's choice.</td>
<td>Selected on the basis of student interest.</td>
<td>NURSING SCHOOL:</td>
<td>- Research Committee: Identification of research priorities in nursing.</td>
</tr>
<tr>
<td>- Applied Administration</td>
<td></td>
<td>- Formulation of theory-practice projects with the aid of international and national agencies.</td>
<td></td>
</tr>
<tr>
<td>- Elective Courses</td>
<td></td>
<td>PERSONNEL:</td>
<td></td>
</tr>
</tbody>
</table>

| - Technical assistance in the theory and practice of: | | - Continuing education in the area of supervision of clinical practice. |
| . Health Care Delivery | | | |
| . Research | | | |

### LEVEL: IV. PROFESSIONAL OPTIONS

#### POPULATION
- Individuals and groups in hospital, as well as community settings.
  - Community Health:
    . Maternal-child
    . School Health
    . Occupational Health
    . Mental Health
  - Advanced Medical-Surgical Nursing:
    . Pediatrics
    . Neurology
    . Cardiorespiratory
    . Nephrology
    . Trauma

#### FUNCTIONS

1. **Nursing intervention** by means of an integrated theory-practice approach.
   - Specialized care in the area selected.
   - Elaboration of research project to be implemented during year of rural rotation.

2. **RURAL ROTATION**
   - Application of the nursing process in the care of individuals, families and the community.
   - Utilization of epidemiological principles in patient care.
   - Application of the administrative process in daily health care delivery.
   - Incorporation of health education into daily nursing care.
   - Support of community participation in all phases of health care planning and delivery.
   - Demonstration of skill in the application of change theory.
   - Identification and utilization of community resources.
   - Planning and implementation of health maintenance and health promotion programs.
   - Collaboration with other sectors (agriculture, education, etc.) in carrying out community development programs.
   - Application of leadership skills.
   - Application of the scientific method in the identification and solution of community problems.

#### SKILLS

- Project development.

#### PREREQUISITES

- Maternal-child
- School Health
- Occupational Health
- Mental Health
- Advanced Medical-Surgical Nursing
- Pediatrics
- Neurology
- Cardiorespiratory
- Nephrology
- Trauma

### RURAL ROTATION

- The community
- The family
- The individual
APPENDIX VI

PROFESSIONAL LEVEL I

NURSING RESEARCH INTEGRATED

ADMINISTRATION PRACTICE INTEGRATED

NURSING PROCESS THEORY TAUGHT SEPARATELY

HEALTH EDUCATION INTEGRATED

TRANSCULTURAL NURSING INTEGRATED

MENTAL HEALTH

CONTENT AREAS

Nursing Intervention I
Growth and Development
Nutrition

First Aid
Accident Prevention - Home Safety

Pathophysiology
Pharmacology I
Nursing Techniques
Epidemiology

CURRICULUM: COMMUNITY HEALTH

Assessment Health Maintenance and Promotion, Uncomplicated Morbidity

Newborn | Infant | Pre-School | School Age | Adolescent | Young Adult | Geriatric Patient

Prenatal Period
Puerperium
Normal Delivery
Family Planning
Cancer Screening
## APPENDIX VI (Continued)

### PROFESSIONAL LEVEL I: ASSESSMENT AND CARE OF THE NEWBORN

<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>HEALTH PROMOTION</th>
<th>UNCOMPlicated MORBIDITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills</strong></td>
<td><strong>Content</strong></td>
<td><strong>Skills</strong></td>
</tr>
<tr>
<td>1. Take Clinical History</td>
<td>Growth and Development of the Newborn</td>
<td>Health Education</td>
</tr>
<tr>
<td>2. Familiarize self with Information System</td>
<td>Techniques of the Physical Exam</td>
<td>Infant</td>
</tr>
<tr>
<td>3. Physical Exam:</td>
<td>Normal Characteristics:</td>
<td>Hygiene</td>
</tr>
<tr>
<td>- Assessment by functions (see Mitchell)</td>
<td>Neurologic</td>
<td>Growth and Development</td>
</tr>
<tr>
<td>- Assessment by Organ Systems</td>
<td>Endocrine</td>
<td>Immunization</td>
</tr>
<tr>
<td>- Assessment of behavior:</td>
<td>Respiratory</td>
<td>Role of the Newborn</td>
</tr>
<tr>
<td>- Motor</td>
<td>Gastrointestinal</td>
<td>in the family, considering cultural context</td>
</tr>
<tr>
<td>- Adaptive</td>
<td>Musculoskeletal</td>
<td>Immunizations and</td>
</tr>
<tr>
<td>- Language</td>
<td>Integumentary</td>
<td>Prophylaxis</td>
</tr>
<tr>
<td>- Skills</td>
<td>Elimination</td>
<td></td>
</tr>
<tr>
<td>- Personal and Social</td>
<td>Immunologic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hematologic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nutritional Status</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Activity Patterns</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cognitive Development</td>
<td></td>
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<tr>
<td></td>
<td>Intellectual Development</td>
<td></td>
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<td></td>
<td>Emotional Development</td>
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<tr>
<td></td>
<td>Psychological Development</td>
<td></td>
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<tr>
<td></td>
<td>Adaptive Mechanisms</td>
<td></td>
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<td></td>
<td>Sexual Development</td>
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</table>
APPENDIX VI (Continued)

<table>
<thead>
<tr>
<th>RESEARCH</th>
<th>ADMINISTRATION</th>
<th>TRANSCULTURAL NURSING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation of newborn</td>
<td>Characterize the nature of structured and unstructured organizations (i.e., formal and informal)</td>
<td>Cultural beliefs re. newborn</td>
</tr>
<tr>
<td>Collection of data:</td>
<td>Organizational planning</td>
<td>Socio-economic barriers to obtaining health care</td>
</tr>
<tr>
<td>.Mother and other sources</td>
<td>Organization of personal time</td>
<td>Traditional medical practices with respect to the newborn</td>
</tr>
<tr>
<td>Interviewing</td>
<td>Administrative behavior</td>
<td>Socio-economic impact of the newborn on the family</td>
</tr>
<tr>
<td>Recording Information</td>
<td>Leadership</td>
<td>Socialization of the new family and community member</td>
</tr>
<tr>
<td>Direction of children with problems of growth and development</td>
<td>Information</td>
<td>Cultural values re. the child and health care</td>
</tr>
<tr>
<td>Base nursing interventions on scientific principles</td>
<td>Utilization of resources:</td>
<td>Alimentary patterns</td>
</tr>
<tr>
<td>Analyze risk factors in the newborn, reach conclusions and contribute to the search for solutions to improve the growth and development of the newborn</td>
<td>.Material</td>
<td>Collaboration between two health care systems (formal and traditional)</td>
</tr>
<tr>
<td>Identification of uncomplicated morbidity:</td>
<td>.Human</td>
<td>Relationship between health care professional and patient</td>
</tr>
<tr>
<td>.Underweight or overweight children</td>
<td></td>
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<tr>
<td>.Respiratory conditions</td>
<td></td>
<td></td>
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<tr>
<td>.Diarrhea</td>
<td></td>
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<tr>
<td>.Vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.Diseases of the skin</td>
<td></td>
<td></td>
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<tr>
<td>Nursing interventions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring of effects of nursing interventions on the patient</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# APPENDIX VII

## PROFESSIONAL LEVEL II

### HEALTH EDUCATION

### RESEARCH

### ADMINISTRATION

### NURSING PROCESS

### TRANSCULTURAL NURSING

<table>
<thead>
<tr>
<th>FOLLOW-UP</th>
<th>EVALUATION</th>
<th>INTERVENTION</th>
<th>PLANNING</th>
<th>ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACUTE-CHRONIC</td>
<td>NORMAL DELIVERY</td>
<td>HIGH RISK MOTHER &amp; NEWBORN</td>
<td>MATERNAL-CHILD</td>
<td>THE TERMINALLY ILL PATIENT</td>
</tr>
<tr>
<td>PEDIATRICS/ADULTS</td>
<td>MEDICAL-SURGICAL</td>
<td></td>
<td></td>
<td>PATIENTS WITH PROBLEMS OF PHYSICAL AND PSYCHO-SOCIAL INTEGRATION</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOLLOW-UP</th>
<th>EVALUATION</th>
<th>INTERVENTION</th>
<th>PLANNING</th>
<th>ASSESSMENT</th>
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</thead>
<tbody>
<tr>
<td>LIFE CYCLE</td>
<td></td>
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</tbody>
</table>
APPENDIX VII Continued

PROFESSIONAL LEVEL II

SUBUNIT 1:
Medical-Surgical Nursing
(Operating Room)

CONTENT AREAS:
Administration
Pathophysiology II
(Acute and chronic diseases)
Nursing Intervention II
(Specialized procedures and treatments)
Diet Therapy
Pharmacology II
Health Education
Rehabilitation
Epidemiology II
Organization of Nursing Interventions
Ethical-Legal Aspects
Operating Room Techniques
The Nurse Within the Health Team
Referral System
PROFESSIONAL LEVEL II

SUBUNIT 2:
Chronic and Terminal Illness

CONTENT AREAS:
Pathophysiology III
Pharmacology III
Nursing Intervention III - Special Procedures and Treatments
Theories Regarding Death
Crisis Theory
Administration - Human Resources, Referral
Psycho-social and Spiritual Care
Nutrition
Health Education
Ethical-Legal Aspects
Epidemiology III

SUBUNIT 3:
Maternal-Child Health
(Labor and Delivery, OB/GYN Pathology, High Risk Newborn

Pathophysiology IV - Obstetrics, Gynecology, Newborn
Pharmacology IV
Nutrition
Health Education
Nursing Intervention IV - Special Procedures and Treatments
Administration
Ethical-Legal Aspects

ELECTIVE:
Epidemiology IV
The Nurse Within the Health Team
### Professional Level II

**Subunit 4:**

- The client with problems of physical and psychosocial integration.
  - Psychotic and Neurotic Disorders
- Care of the Handicapped Client

<table>
<thead>
<tr>
<th>Semester VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Substance Abuse - The Alcoholic/Drug-dependent client</td>
</tr>
<tr>
<td>- Abandoned Children Juvenile Delinquency Encarcerated Clients Prostitution Single Mothers</td>
</tr>
</tbody>
</table>

### Content Areas:

- Psychopathology
- Pharmacology V
- Nursing Intervention V - Special Procedures and Treatments Administration Ethical-Legal Aspects
- Mental Health and Psychiatric Nursing Rehabilitation Social Psychology Epidemiology V The Nurse Within the Health Team
- Pathophysiology VI Rehabilitation (Social and Physical)
- Nursing Intervention VI - Special Procedures and Treatments Administration and Utilization of Resources Ethical-Legal Aspects Transcultural Nursing
- Mental Health and Psychiatric Nursing Epidemiology VI, Pharmacology VI The Nurse Within the Health Team
- Psychopathology Epidemiology VII, Pharmacology VII Social Psychology Rehabilitation
- Nursing Intervention VII - Special Procedures and Treatments Administration Ethical-Legal Aspects
- Social Psychology, Psycho-social Rehabilitation Familial and Social Impact of These Problems
- Nursing Intervention VIII - Participation in Interdisciplinary Programs Administration Ethical-Legal Aspects
<table>
<thead>
<tr>
<th>AREAS</th>
<th>SUBJECTIVE/OBJECTIVE DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceptions of the client regarding:</strong></td>
<td></td>
</tr>
<tr>
<td>Actual health status</td>
<td></td>
</tr>
<tr>
<td>Objectives</td>
<td></td>
</tr>
<tr>
<td>Services or resources required to meet objectives</td>
<td></td>
</tr>
<tr>
<td><strong>Functional Abilities:</strong></td>
<td></td>
</tr>
<tr>
<td>Respiration/Circulation status</td>
<td></td>
</tr>
<tr>
<td>Elimination status</td>
<td></td>
</tr>
<tr>
<td>Emotional/Psychological status</td>
<td></td>
</tr>
<tr>
<td>Motor/Safety status</td>
<td></td>
</tr>
<tr>
<td>Nutritional status</td>
<td></td>
</tr>
<tr>
<td>Personal hygiene</td>
<td></td>
</tr>
<tr>
<td>Sensory status</td>
<td></td>
</tr>
<tr>
<td>Sexual function</td>
<td></td>
</tr>
<tr>
<td>Sleeping patterns</td>
<td></td>
</tr>
<tr>
<td><strong>Resources - Support Systems:</strong></td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td></td>
</tr>
<tr>
<td>Personal/Social</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>


**Complete List of Functions:**

- Motor Status
- Integumentary Status
- Sensory Status
- Nutritional Status
- Elimination Status
- Circulatory/Respiratory Status
- Fluids and Electrolyte Status
- Comfort/Sleep Status
- Temperature Status
## APPENDIX IX

### GUIDE FOR ASSESSMENT OF THE FOUR DIMENSIONS IN COMMUNITY HEALTH NURSING

<table>
<thead>
<tr>
<th>ENVIRONMENTAL</th>
<th>BIOPHYSICAL</th>
<th>SOCIO-CULTURAL</th>
<th>PSYCHOLOGICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surname and name</td>
<td>Each member:</td>
<td>Sex</td>
<td>Feelings and opinions re:</td>
</tr>
<tr>
<td>Case number</td>
<td>Age</td>
<td>Ethnic origin</td>
<td>Basic human needs</td>
</tr>
<tr>
<td>Address</td>
<td>Sex</td>
<td>Religion</td>
<td>Family relationships</td>
</tr>
<tr>
<td>House, external</td>
<td>Genetic factors</td>
<td>Marital status</td>
<td>Security</td>
</tr>
<tr>
<td>House, internal</td>
<td>Basic human needs</td>
<td>Family structure in home</td>
<td>Physical conditions:</td>
</tr>
<tr>
<td>Space Allotment</td>
<td>Developmental status</td>
<td>Spouse</td>
<td>Own</td>
</tr>
<tr>
<td>Utilities</td>
<td>Nutritional status</td>
<td>Children (no., age, sex)</td>
<td>Others</td>
</tr>
<tr>
<td>Plumbing</td>
<td>Female reproductive status</td>
<td>Parents</td>
<td></td>
</tr>
<tr>
<td>Housekeeping</td>
<td>General physiological status</td>
<td>Siblings</td>
<td>Changes in body image</td>
</tr>
<tr>
<td>Health engendering</td>
<td></td>
<td>Others</td>
<td>Pain</td>
</tr>
<tr>
<td>Conveniences</td>
<td></td>
<td>Family interaction patterns</td>
<td>Illness</td>
</tr>
<tr>
<td>Furnishings</td>
<td></td>
<td>Lifestyle</td>
<td>Death</td>
</tr>
<tr>
<td>Basic human needs</td>
<td></td>
<td>Value system</td>
<td>Health care systems</td>
</tr>
<tr>
<td>Neighborhood</td>
<td></td>
<td>Occupation:</td>
<td>Present health</td>
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<tr>
<td>General area condition</td>
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<td>Self</td>
<td>Intellectual capacity</td>
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<tr>
<td>Sanitation</td>
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<td>Spouse</td>
<td>Educational</td>
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<tr>
<td>Safety</td>
<td></td>
<td>Others</td>
<td>Sensory reactions and perceptions</td>
</tr>
<tr>
<td>Health engendering</td>
<td></td>
<td>Typical day:</td>
<td>Orientation (time, place, etc.)</td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
<td>Customs</td>
<td>Tensions or stressors</td>
</tr>
<tr>
<td>Facilities</td>
<td></td>
<td>Food/eating patterns</td>
<td>Response patterns</td>
</tr>
<tr>
<td>Stressors</td>
<td>Stressors</td>
<td>Activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recreation</td>
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<td></td>
<td></td>
<td>Community affairs</td>
<td></td>
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<td></td>
<td></td>
<td>Basic human needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Financial status</td>
<td></td>
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<td></td>
<td></td>
<td>Health insurance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attitudes - health and delivery systems</td>
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</table>

Source: University of New Mexico School of Nursing, Submodule 0502.
<table>
<thead>
<tr>
<th>LEVELS OF PREVENTION</th>
<th>APPENDIX X, PROFESSIONAL LEVEL III</th>
</tr>
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<tbody>
<tr>
<td>Research and Data Gathering</td>
<td>1.0</td>
</tr>
<tr>
<td>Community Diagnosis</td>
<td>1.0</td>
</tr>
<tr>
<td>Community Participation</td>
<td>1.0</td>
</tr>
<tr>
<td>Promotion of Change</td>
<td>1.0</td>
</tr>
<tr>
<td>Program Administration</td>
<td>1.0</td>
</tr>
<tr>
<td>Epidemiological Control</td>
<td>1.0</td>
</tr>
<tr>
<td>Research and Data Gathering</td>
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<tr>
<td>Community Diagnosis</td>
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<tr>
<td>Community Participation</td>
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<td>Promotion of Change</td>
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<tr>
<td>Program Administration</td>
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LIFE CYCLE | OCCUPATIONAL HEALTH MAINTENANCE PROGRAMS |
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<td>PRE-SCHOOL PROGRAMS</td>
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<td>NEWBORN AND INFANT PROGRAMS</td>
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</table>
APPENDIX X (Continued)

PROFESSIONAL LEVEL III

UNIT:
Community Development
Patient Population -
- The Community
- The Family
- The Individual

CONTENT AREAS:
Community Health
Epidemiology
Program Administration -
  Leadership
  Change Theory
  Health Economics
  Cost/Benefit and Cost/Effectiveness
Transcultural Nursing
Research Methodology
Nursing Intervention IX
The Nurse Within the Health Team
APPENDIX XI

TERMINAL PERFORMANCE OBJECTIVES FOR LEVEL III

I. Understand the role of the nurse within the health care system
   1.1 Formulate a personal philosophy of the role of the community health nurse (CHN)
   1.2 Apply the nursing process to the community setting
   1.3 Work effectively within the health team and effectively coordinate multi-sectoral community services
   1.4 Distinguish the differences between preventive and curative health systems
   1.5 Identify the functions of the nurse in primary health care

II. Synthesize concepts from public health science and nursing science
   2.1 Compare and contrast the health care system in the community with the regional, provincial and national systems
   2.2 Recognize the influence of national policy on health care delivery
   2.3 Evaluate the impact of health policy on the health status of families and communities
   2.4 Define levels of prevention in a primary health care system
   2.5 Recognize own capacity for participation in primary health care activities
   2.6 Determine the need for, and recommend, necessary referrals
   2.7 Initiate case finding activities

III. Utilize principles of epidemiology and their relationship to disease causation as well as their role in prevention and cure
   3.1 Apply epidemiological principles in communicable disease control programs
   3.2 Recognize the validity of research methodology as a tool in the prevention of disease and the maintenance and promotion of health

IV. Understand and utilize the information system
   4.1 Familiarize self with the current information system in Ecuador
   4.2 Devise methods for improving the information system and multi-sectoral communication
   4.3 Familiarize self with forms and documents used in research and evaluation

V. Analyze the community as a field for nursing actions
   5.1 Define the community and its functions
   5.2 Effectively utilize community assessment instruments
   5.3 Apply the nursing process in data gathering
   5.4 Analyze theories and methods for community assessment and assessment of the health status of the community
APPENDIX XI Continued

5.5 Identify the sub-systems within the community
5.6 Identify patterns of interaction between sub-systems
5.7 Describe the impact of various sub-systems on the health status of individuals, families and communities
5.8 Describe the role of community assessment in program planning
5.9 Discuss the contribution of community assessment in the development of programs and health services
5.10 Recognize the importance of cultural factors in the process of community assessment and diagnosis

VI. Demonstrate skill in family assessment
6.1 Identify instruments for family and individual assessment
6.2 Collect data in a systematic manner
6.3 Identify health needs on the basis of assessment and growth and development tests
6.4 Discuss theories of family assessment
6.5 Discuss the family unit as a context for health behavior
6.6 Describe the different family forms
   - Nuclear
   - Extended
6.7 Evaluate the objectives of family nursing practice
6.8 Compare and contrast different theories of family dynamics
6.9 Synthesize information regarding role differentiation within the family
6.10 Analyze communication patterns within the family and their impact on health status
6.11 Discuss patterns of influence and power within the family and their impact on health status

VII. Analyze theories of care planning and nursing intervention for the individual and the community, taking into account the life cycle and cultural factors which have an impact on health status
7.1 Plan and implement nursing interventions for groups according to their developmental stage
7.2 Formulate concrete, measurable objectives for nursing interventions
7.3 Compare program results with stated objectives
7.4 Relate therapy as well as referrals to other levels of prevention, to their effects on community groups
7.5 Justify referrals within the system
7.6 Interpret nursing care within its social, cultural and environmental context
7.7 Analyze the definition of the health-illness continuum within each cultural group in the patient population
APPENDIX XI Continued

7.8 Identify health-protecting behavior in the community
7.9 Critically analyze the health belief model
7.10 Analyze the health-protecting behavior model

VIII. Apply the community development process in order to optimize the health of individuals and families in the community
8.1 Define the community development process and its applications in Ecuador
8.2 Identify the various agencies which participate in community development
8.3 Utilize community resources in the planning and implementation of health programs
8.4 Encourage community participation in the development process according to established norms for the health sector

IX. Apply change theory to the family and community setting
9.1 Identify the health beliefs of the population
9.2 Identify and utilize the sources of motivation for change which exist within the family
9.3 Analyze and apply behavior modification theory as it applies to health-seeking behavior
9.4 Compare and contrast the effects of different nursing interventions on the lifestyle of the patient population

X. Evaluate the effectiveness of the community nursing process by means of operations research and program evaluation
10.1 Define the role of the nurse in planning for health services
10.2 Identify and implement strategies for health program administration, such as:
   a. Concepts from health economics
   b. Cost benefit and cost effectiveness analysis
   c. Strategies for multi-sectoral coordination
10.3 Evaluate the effects of multi-sectoral programs on the health status of the population
10.4 Define the relationship between the evaluation process and the nursing process
10.5 Identify factors which effect the success of program implementation
I. The Role of the Community Health Nurse
   a. History of the role of the CHN
   b. Functions of the CHN
   c. The nursing process and its applications in community health
   d. Skills required of the CHN
   e. Areas of utilization of the CHN
   f. The CHN as a member of the health team

Suggested Bibliography:
Borges, Maria V. "Nursing in Primary Health Care in Brazil", International Nursing Review, (27,6,1980), 173-177.

II. Principles of Public Health and Health Policy
   a. Concepts and principles of public health
   b. Synthesis of public health and community health nursing concepts
   c. Health policy and preventive programs

Suggested Bibliography:
Fromer, Chapter 8.
APPENDIX XI Continued

Green, L.W. "Health Promotion Policy and the Placement of Responsibility for Personal Health Care", *Family and Community Health*, (1979, 2), 51-64.


III. Epidemiology and Research
   a. Definition of the concept
   b. Terminology
   c. Epidemiological principles in disease control programs
   d. Utilization of epidemiology in community health research – advantages and disadvantages

*Suggested Bibliography:*

Clemen, Unit 4, chapter 10.

Fromer, chapter 9.


IV. Information Systems
   a. Importance of charting and the recording of data
   b. Current information systems in Ecuador
   c. Development of information systems
   d. Research and evaluation – data gathering

*Suggested Bibliography:*

Freeman and Heinrich, chapter 6.

University of New Mexico Submodule: *The Chart Audit*.


*Resource People/Guest Speakers:*


Dr. José Castro, M.S.P., División Nacional de Desarrollo Comunitario.

V. Community Assessment
   a. Definition of the community
   b. Functions of the community
c. Data collection - methodology  
d. Community diagnosis  
e. Theories of community diagnosis  
   1. Systems theory  
   2. Cultural method  
   3. Discovery method  

Suggested Bibliography:  
Clemen, Unit 4; Chapter 11.  
Freeman and Heinrich, chapters 17 and 18.  
Reinhardt and Quinn, Part IV, chapter 9.  
University of New Mexico Submodule #0502 - Guide for Assessment of the Four Dimensions in Community Health Nursing.  

VI. Family Assessment  
a. Definition of the family  
b. Functions of the family unit  
c. Family assessment methodologies  
   1. Structural/functional  
   2. Growth and development  
   3. Interactional  
d. Family assessment theories  
   1. Geismar and La Sorte - the family with multiple problems  
   2. Family development  
   3. Communications  
   4. Systems theory  
e. Factors which impact on the health status of the family  

Suggested Bibliography:  
Brownlee, chapters 5, 10, 11.  
Clemen, Unit 3, chapter 6.  
Freeman and Heinrich, chapter 4.
APPENDIX XI Continued

c. Data collection - methodology

d. Community diagnosis

e. Theories of community diagnosis

1. Systems theory
2. Cultural method
3. Discovery method

Suggested Bibliography:


Clemen, Unit 4; Chapter 11.


Freeman and Heinrich, chapters 17 and 18.

Reinhardt and Quinn, Part IV, chapter 9.


University of New Mexico Submodule #0502 - Guide for Assessment of the Four Dimensions in Community Health Nursing.

VI. Family Assessment

a. Definition of the family

b. Functions of the family unit

c. Family assessment methodologies

1. Structural/functional
2. Growth and development
3. Interactional

d. Family assessment theories

1. Geismar and La Sorte - the family with multiple problems
2. Family development
3. Communications
4. Systems theory

Suggested Bibliography:

Brownlee, chapters 5, 10, 11.

Clemen, Unit 3, chapter 6.

Freeman and Heinrich, chapter 4.
APPENDIX XI Continued

Friedman, chapters 1, 2, 5, 6, 7, and 12 - 17.
Fromer, chapter 10.


VII. Care Planning and Nursing Intervention for the Family

a. The young family - programs in maternal-child health, pre-school and school age health
b. The mature family - occupational health
c. The aging family
d. Health-protecting and promoting behavior

Suggested Bibliography:
Brownlee, chapter 8.
Clemen, Unit 3, chapters 7, 8; Unit 5.
Freeman and Heinrich, chapters 12-15.
Fromer, chapters 15, 16.


Reinhardt and Quinn, Part III, chapter 7.

VIII. The Promotion of Change in the Community

a. Definition of community development
b. The community development process
c. Agencies which participate in community development
d. Use of community organizations by the CHN

Suggested Bibliography:
APPENDIX XI Continued

Friedman, chapters 1, 2, 5, 6, 7, and 12 - 17.
Fromer, chapter 10.

VII. Care Planning and Nursing Intervention for the Family
a. The young family - programs in maternal-child health, pre-school and school age health
b. The mature family - occupational health
c. The aging family
d. Health-protecting and promoting behavior

Suggested Bibliography:
Brownlee, chapter 8.
Clemen, Unit 3, chapters 7, 8; Unit 5.
Freeman and Heinrich, chapters 12-15.
Fromer, chapters 15, 16.
Reinhardt and Quinn, Part III, chapter 7.

VIII. The Promotion of Change in the Community
a. Definition of community development
b. The community development process
c. Agencies which participate in community development
d. Use of community organizations by the CHN

Suggested Bibliography:
IX. The Change Process and the Family
   a. The CHN is a change agent
   b. The nature of change
   c. Motivation for change
   d. The process of change - factors which influence it
   e. Types of change
   f. Phases in the change process
   g. Methods for affecting change within the family
      1. Conflict as a force for change
      2. Social learning theory and its relationship to change
      3. Health belief model

Suggested Bibliography:
Brownlee, chapters 10 and 11.
Fromer, chapter 11.
Pedersen, Duncan, et. al., Bibliografía sobre creencias de salud en el Ecuador, Centro de Estudios Transculturales.
Reinhardt and Quinn, Part III, chapter 7.

X. Program Planning, Administration and Evaluation
   a. National trends in health care delivery
   b. The role of the CHN in health planning
   c. Program administration
      1. Health economics
      2. Cost benefit and cost effectiveness analysis
      3. Multisectoral coordination
   d. Concepts in program evaluation
   e. Steps in the evaluation process
   f. Relationship between the evaluation process and the nursing process
APPENDIX XI (Continued)

Suggested Bibliography:


Dignan and Carr, chapters 5 and 6.


Reinhardt and Quinn, chapters 17, 18 and 19.

Shapiro, S. "Measuring the Effectiveness of Prevention, Part II", Milbank Memorial Fund Quarterly, (Spring 1977, 55), 291-305.


# APPENDIX XII

**Professional Level IV**

**Administration**

**Health Education**

**Nursing Process**

**Nursing Research**

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**Integrated Theory and Practice According to Area Selected**

<table>
<thead>
<tr>
<th>Community</th>
<th>Hospital</th>
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<tbody>
<tr>
<td>Maternal/Child Health</td>
<td>Mental Health</td>
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<tr>
<td>Occupational Health</td>
<td>Cardio-Pulmonary Nursing</td>
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<td>Pediatrics</td>
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<td>Emergency Nursing</td>
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<td>Neurology</td>
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**Options**

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PROFESSIONAL LEVEL IV

OPTIONS:
Individuals and groups in the hospital or the community.

CONTENT AREAS:
Area of specialization.
Administration of:
1) Personnel
2) Nursing Care (i.e., caseload management)
3) Organizational Management
4) Labor Relations
5) The Nurse as Manager

Applied Research
Elective
APPENDIX XII Continued

TERMINAL PERFORMANCE OBJECTIVES FOR LEVEL IV

Preparation of a health protection or promotion plan, including strategies for implementation during the rural rotation.

A non-experimental, descriptive research project may be substituted for the plan, with the approval of the research committee.

TEACHING METHODOLOGY FOR LEVEL IV

Small groups according to specialty area.
Three hours of professional seminar per week.
Reading assignments and discussion of theoretical concepts therein.
Written examinations will be replaced by the research project.
The remainder of the student's time will be spent doing field work and developing the final project under the supervision of the faculty advisor and the research committee.
APPENDIX XIII

GENERAL GUIDELINES FOR IMPLEMENTATION OF CURRICULUM

1. Continuing education for faculty according to needs at each level of curriculum, taking advantage of the time lapse before implementation at the Professional Level.
   - Coordinate with Committee on Nursing Education
   - Elaborate project by October 1983: duration - four months
     Community Health course for instructors and practicing nurses
   - Options for faculty for specialization at the Master's Level (according to program priorities):
     - Community Health
     - Mental Health
     - Medical-Surgical Nursing
     - Anthropology-Sociology

2. Increment in departmental budget.
   - Technical assistance
   - Short courses for faculty
   - Implementation of new curriculum
   - Instructional materials

3. Elaboration of projects to obtain funding for implementation of curriculum.
   - Renew grant with the Kellogg Foundation
   - Fulbright Foundation
   - Proyecto Docente/Asistencial or Project for Integration of Theory and Practice
   - U.S.A.I.D.

4. Establish bilateral agreement with the Ministry of Health.

5. Establish mechanism for replacement of faculty during continuing education courses.

6. Establish organ for control and evaluation of curriculum.
   - Curriculum Committee to become permanent
   - Ms. Ruffing to send material for design of evaluation instruments

7. Establish regulations and norms for faculty selection, promotion and organization into departments (after completion of micro-curriculum).
APPENDIX XIII (Continued)

8. Organization of faculty into specialty departments:
   - Public Health
   - Maternal - Child Health
   - Medical - Surgical Nursing
   - Mental Health and Psychiatric Nursing
   - Nursing Methodology (i.e., research, administration, etc.)

9. Restructure internal committees in the School of Nursing.

10. Prepare budget according to new program requirements - with aid of Planning Office of P.U.C.E.

11. Determine need for new educational materials.

12. Reorganize Educational Technology Center.

13. Prepare evaluation instruments.

CF/ma. 5/1/83
**Objectives:**
- Prepare nursing personnel according to the needs of the health care system.
- Encourage and strengthen the participation of nursing in national development.
- Create conditions in order that the School of Nursing may foster constructive change in the education and service sectors.

<table>
<thead>
<tr>
<th>Program</th>
<th>Characteristics</th>
<th>Goals</th>
<th>Requirements</th>
</tr>
</thead>
</table>
| I. Baccalaureate in Nursing - New Curriculum Design | 1. Based on the health needs of the country  
  2. Emphasis on prevention  
  3. Integrated theory and practice  
  4. Active participation of student in learning process | - Implementation to begin in October, 1983  
  - Increase enrollment by 50% by October, 1985  
  - Follow-up study of graduates of new program to begin in September, 1987 | 1. Establish permanent committee for control of implementation and evaluation phases of curriculum change.  
  2. Increase in faculty and administrative personnel according to needs created by new curriculum and increased enrollment.  
  3. Budget increase for School of Nursing (according to changes in V2).  
  4. Reorganize administrative structure of nursing school into clinical departments.  
  5. New equipment and instructional materials.  
  6. Reorganization of the Center for Educational Technology and existing internal faculty committees.  
  7. Creation of the Center for Nursing Research.  
  8. Coordination of goals within the university and with external organizations.  
  9. Elaboration of national and international projects and agreements which support curriculum implementation.  
  11. Continuing education for faculty. |
| II. Master of Nursing Science | 1. Increase professional competence and broaden range of skills  
  2. Specialization in priority areas:  
    - Community Nursing  
    - Nursing Administration  
    - Nursing Education  
    - Medical-Surgical Nursing  
    - Maternal-Child Nursing  
    - Psychiatric Nursing | - Needs assessment and planning to begin in 1983  
  - Implementation to begin in 1985 | In addition to numbers 2 - 10:  
  12. Technical assistance for curriculum development.  
  14. Specialization of faculty at the master's and doctoral levels.  
  15. Organization of the Committee for Graduate Studies. |
| III. Research | 1. Integrating strand of new curriculum  
  2. Supports the following activities:  
    - Development of research in nursing and public health  
    - Supervision of student thesis research  
    - Data bank and bibliography in the health field  
    - Publication | .983 - organization of Center for Research in Nursing  
  - Establish research priorities for the School of Nursing  
  - Organization of data bank and health care bibliography 1984 - 1986  
  - Implementation and evaluation of projects  
    - Publication of results 1986 - 1990  
  - Review of research priorities - New programming | In addition to numbers 2, 3, 5, and 8 - 13:  
  16. Create the necessary administrative structure for implementation of research projects.  
  17. Training of specialist in nursing research.  
  18. Obtain national and international funding for nursing research. |
OBJECTIVES:
- Prepare nursing personnel according to the needs of the health care system.
- Encourage and strengthen the participation of nursing in national development.
- Create conditions in order that the School of Nursing may foster constructive change in the education and service sectors.

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<th>GOALS</th>
<th>REQUIREMENTS</th>
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<tbody>
<tr>
<td>IV. University Extension</td>
<td>1. Auxiliary nurse training (urban and rural)</td>
<td>- Continue courses in auxiliary nursing</td>
<td>In addition to numbers 2-6, 8-11, and 13:</td>
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<tr>
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<td>2. National continuing education for nurses</td>
<td>- Plan extension of continuing education program (Kellogg Foundation) in 1983</td>
<td>19. Strengthen the Continuing Education Committee of the School of Nursing.</td>
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<td>3. Extension of nursing program to other provinces (satellite schools)</td>
<td>- Implementation 1984-86</td>
<td>20. Explore possibilities of technical assistance for creation of new nursing schools.</td>
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<td>4. Social action programs</td>
<td>- Assist in establishing satellite schools</td>
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<td>- Implement nursing curriculum in satellite schools, 1985</td>
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APPENDIX XV

THE ROLE OF THE COMMUNITY HEALTH NURSE
WITHIN THE HEALTH SYSTEM:
PROFESSIONAL PROFILE

Community health nursing purports to integrate principles of public health and nursing practice. In collaboration with other disciplines, the CHN assesses the health needs of the population, establishes priorities on the basis of risk factors and intervenes, utilizing the necessary health care and community resources.

The basic activities of the CHN include:
A. Follow-up of communicable disease, including investigation of contacts.
B. Prevention of communicable disease in infants and children by means of attainment and maintenance of optimum community health.
C. Prevention of complications of pregnancy and improvement of the health status of the pregnant woman and the newborn by means of early detection of pregnancy, health education, continuous prenatal care and family planning.
D. Reduction of infant morbidity and mortality by means of timely visits to the newborn with priority being given to high risk families.
E. Development of health education programs for home care, hospitals, health posts and sub-centers, schools, and the community with the purpose of preventing disease, reducing the deleterious effects of existing disease and teaching the family to care for the sick or handicapped individual in the home; the promotion of customs and behavior which lead to an optimal state of health; and the improvement of the capacity of the family, group and community to confront their health problems and problems which effect the successful completion of their activities of daily living.
F. Provision of counseling to the adolescent and young adult regarding health and family living.
G. Tracking of clients with identified needs to assure that they are not "lost" within the health care system.
H. Collaboration with other members of the health team, the community and other agencies in planning and coordinating comprehensive services.
The CHN fulfills this role within the health care system by completing the following tasks:

A. Makes home visits, holds individual and group conferences, and teaches through demonstration.

B. Informs individuals and groups of existing health services and makes appropriate referrals.

C. Provides comprehensive nursing services to individuals, families and communities in the areas of health promotion and prevention of disease while maintaining their personal and cultural integrity and recognizing their right to make their own decisions.

D. Provides nursing services in day care centers and schools.

E. Coordinates the work of health promoters and other auxiliary personnel and supervises programs for different patient populations according to their developmental level.

F. Familiarizes self with socio-cultural, political, geographic, demographic, economic, and epidemiological characteristics of the communities served.

G. Participates in continuing education programs and multi-sectoral meetings with the objective of improving health care services in general and nursing services in particular.

H. Maintains records and submits reports to the appropriate level with the purpose of improving the health information system.

Adapted from position descriptions and departmental objectives of the Field Health Department, US Public Health Service/Indian Health Service Acoma - Cañoncito - Laguna Service Unit, San Fidel, New Mexico.
APPENDIX XVI

LIST OF PERSONS CONTACTED

Center for Transcultural Studies:
   Dr. Duncan Pedersen, Director

Ministry of Health:
   Dr. Sarracín, Minister of Health
   Dr. José Castro, Director - Community Development
   Dr. Eduardo Rodriguez, Director - International Relations
   Dr. César Troncoso, Director - Priority Programs

National Development Council:
   Dr. Fausto Andrade
   Dr. Eduardo Navas
   Dr. Gustavo Estrella

Private Voluntary Organizations:
   Amigos de las Americas; Ms. Cynthia Goodale, Director - Latin American Programs
   Medical Assistance Program International; Mr. Robert Moore, Director
   Save the Children Alliance; Mr. Tore I. Floden, Director
   Vozandes Hospital (HCJB); Mr. Ben Cummings, Vice President; Ms. Sara Risser, Director - Community Development

Rural Development Secretariat:
   Dr. Edgar Moncayo, Director - Health Programs
   Dr. Jaime Valencia, Director - Health Programs/Salcedo Project

School of Nursing of the Central University:
   Dr. Georgina de Carrillo, Professor and Representative of the Kellogg Foundation

United States Agency for International Development:
   Dr. Kenneth Farr, Director - Health Division

World Health Organization:
   Dr. Carlos Pettigiani, Director - Ecuador Office
BIBLIOGRAPHY


