

CASE STUDY: CONTRIBUTION OF NURSES AND MIDWIVES TO PERFORMANCE AND ACHIEVEMENT OF HEALTH SYSTEM GOALS

Colombia Case Study

July 2001

Organization and Management of Health Systems and Services (HSO)
Division of Health Systems and Services Development (HSP)



Pan American Health Organization
World Health Organization

© Pan American Health Organization, 1999

This document is not a formal publication of the Pan American Health Organization (PAHO), and all rights are reserved by the Organization. This document may, however, be freely reviewed, abstracted, reproduced and translated, in part or in whole, provided that full credit is given to the source and that the text is not used for commercial purposes.

INDEX

1. INTRODUCTION	1
2. CASE STUDY	3
3. CASE STUDY PART I: SOCIOPOLITICAL CONTEXT	5
4. CASE STUDY PART II: CONTRIBUTIN OF NURSING TO DEVELOPMENT AND ACHIEVEMENT OF HEALTH SYSTEM GOALS	24
5. ANEXOS	50
6. BIBLIOGRAPHY	62

1. INTRODUCTION

Colombia is a beautiful country occupying the northwestern corner of the South American continent. Bordering two oceans, the Atlantic and Pacific, it is strategically located from a communications and economic standpoint. Three Andean mountain ranges are found in Colombia and cover vast areas of the western, central, and eastern parts of the country, where the country's irregular topography poses serious obstacles to overland travel. Its mountainous geography is home to a wide range of climates, from the wintry-cold of the upper highlands to the tropical heat of the lowest elevations, including a significant number of places that enjoy year-round spring like weather. Colombia's diverse climates and topography support a large variety of plant life. Current agricultural exports include coffee, bananas, cut flowers (world renown for their aroma and color), and some exotic fruit varieties. In addition its plant life, the wide variety and number of animal species found place Colombia among the world's richest countries in terms of biodiversity. Moreover, it is blessed with natural environments of great beauty, numerous rivers, fertile land, and a subsoil containing deposits of oil, minerals, and precious stones, including its world famous emeralds.

Nevertheless, Colombia people are its most valuable resource, and can be characterized as enterprising, hardworking, studious, as well as possessing great talent and initiative. The population is also made up of a large number of indigenous groups that have their own unique cultures and languages. Unfortunately, a number of political and socioeconomic factors have contributed to a decline in population among these groups. Currently, however, indigenous groups are increasingly engaged in development without losing their cultural identity, enjoying representation in Parliament and priority in admission to higher education. Despite persistent inequities in socioeconomic conditions and poverty-related problems, these groups have become more aware of and willing to exercise their rights as human beings and as citizens. Indigenous populations present a challenge for the health system, which must provide quality health care in accordance with their beliefs, sociocultural traditions, and with special consideration and respect for traditional therapies used by these groups.

Not only is Colombia divided into political-administrative divisions known as departments, but also into several well-defined regions, based on history, sociocultural characteristics, customs, food, music, models of family organization and lifestyle, and main sources of work or productivity. These regions are also characterized by different degrees of progress, socioeconomic development, and standards of living. Anthropologist Virginia Gutiérrez de Pineda, in her study *Family and Culture in Colombia* (1968), classified the country into four cultural complexes: 1) the Andean or American complex; 2) the "Santandereano" (Santander Dept.) or neoHispanic complex; 3) the Negroid or "*Litoral Fluvio Minero*" (Caribbean coast of the Sierra Nevada de Santa Marta) complex; and 4) the

“Antioquian” (Antioquia Dept.) or Mountain complex. This classification divides the country into cultural regions. The sociocultural differences between these complexes, as well as other regional groups studied, reveal differing levels of education, health, and development, which merit important consideration in terms of health care.

It is important to point out that some departments and regions of the country are more developed than are others. Moreover, within these same departments and regions there are also lesser developed strata that have poorer living conditions than do others and, accordingly, have different epidemiological profiles, social and economic problems, and degrees of success in meeting the basic needs of its people. These marked regional differences underscore Colombia’s complex nature: a single country that theoretically contains several, representing a challenge for planning in the areas of development and health care.

2. CASE STUDY

Objective

The World Health Organization (WHO) decided to conduct case studies in two countries of each WHO region with a view to monitoring progress made on World Health Assembly Resolution 49.1, designed to strengthen nursing and midwifery.

The objective of this case study is to determine how nursing professionals have contributed to the performance and achievement of health system goals in Colombia. Also considered here are how changes in health policies, legislation, regulations, financing, allocation of resources, human resources development, and health service organization, have influenced the effectiveness of nursing interventions.

Methodology

The case study on nursing in Colombia and determination of its influence on the performance of health system goals was based on survey responses of nursing professionals, in accordance with the recommended WHO interview protocol and questionnaire. Also used were findings taken from research documents and publications on nursing professionals and/or experiences.

The case study method involves the analysis of a real situation. It is designed to determine, through description, the status of an issue: in this case, the nursing situation in Colombia, within the context of the social security health system.

Limitations

The main limitations consisted of a restricted timeframe to conduct the study and limited financial resources for the purpose of directly obtaining information in different regions of the country.

Surveys were only administered in Bogota. However, the questionnaire was sent a group of nursing professionals in positions of leadership in the health services of Cali, who responded thanks to the support and coordination of this activity by a nursing leader in that city. Survey information was also requested by telephone in other areas, but was largely unsuccessful.

Document identification and the bibliography were carried out in documentation centers of two Bogotá-area universities, using the Web site of the Ministry of Health and the National Administrative Statistics Department (DANE).

Subjects

Given the short timeframe available, it was only possible to interview 30 professional nurses from the central level (Ministry of Health and the Health Authority of the Bogotá Health Secretariat), the Colombian Association of Schools of Nursing (ACOFAEN), the National Association of Nurses (ANEC), teaching nurses from the nursing schools of an official university, a private university, a nursing auxiliary program, hospital and community service nurses in public and private health agencies, and one research institution. Ten professionals responded in writing to the questionnaire.

Case Study Contents

The Case Study was divided into two parts. The first concerns the sociopolitical context, which describes the situation of nursing professionals and health services. this part includes the following sections: the form of government, the economy, demographic aspects, the health situation, health care infrastructure, changes in the health system, human resources in nursing, and the profile of nursing professionals and auxiliaries.

The second part describes and evaluates the contribution of nursing professionals to the performance and achievement of health system goals, identifying factors that have had an impact on the effectiveness of nursing interventions.

The analysis is based on the 6 specific objectives defined in the protocol.

3. CASE STUDY PART I: SOCIOPOLITICAL CONTEXT

Form of Government

Colombia is democracy. Historically, this tendency has continued over the years and has been the case in most government administrations headed by the different political parties. Colombia has a centralized government, with a progressive, decentralized system of administration in all its sectors, which promotes the active participation of civil society.

The country is divided into 32 departments and the Capital District of Bogotá.

The country's principal governmental officials are democratically elected by popular vote. These include, at the national level, the president and members of the bicameral Parliament, composed of the Senate and House of Representatives; at the departmental level, the governor and Departmental Assembly; and at the municipal level, all cities elect a mayor and a Municipal Council.

In accordance with the most recent reform of the General Social Security System on Health Care, the mayor and Municipal Council are responsible for preparing and managing the municipal health plan. Consequently, medical health professionals and nurses need to develop skills in order to advise and work together with this political entity.

The new Constitution, approved in 1991, has a philosophy and regulatory content that centers on people and the protection of all their rights, which is particularly apparent with respect to health care for the population.

Economy

During the colonial era, the main industries were agriculture, mining, and cottage industries, the latter of which included cloth production on domestic looms. For example, hat manufacturing was responsible for approximately 24% of exports in the mid-nineteenth century.

Colombia entered the industrial era during the twentieth century and by 1960 had 11,125 businesses representing different industries that generated most of the country's jobs. Subsequently, medium- and small-scale industry took shape as an engine of production and source of jobs (Payne).

In 1991 large, medium- and small-scale industry generated more than 2 million jobs, particularly in the textile, food, garment, non-metallic minerals, beverage, construction and publishing sectors.

With respect to employment indicators, according to data of the Central Bank (Banco de la República) and DANE, in 1996 the economically active population was estimated at 15,443,619. That same year employment rate was 53.0%, while the unemployment rate was 11.3%.

According to this same source, in 1998 the rate of unemployment rose to 15.7%, and has since progressively worsened due to a number of factors.

Colombian industry suffered a serious setback due to the country's social problems, which have become more pronounced since 1997. In January 2000, unemployment approached 20%—the highest rate in the country's history, and there is nothing to indicate this situation will change in the foreseeable future. This fact has had a major impact on the quality of life for individuals, families, and also health status.

Since the beginning of the twentieth century, Colombian exports have been changing: once a country whose exports consisted of a single product, today Colombia exports a variety of products. Diversification of exports occurred between 1984 and 1997. As of 2000, the country's primary exports are coffee (23.7%); forest and marine products (14.8%); petroleum products (14.7%); textiles and apparel (9.5%); coal (6.6%); chemical products (6.5%); foodstuff and tobacco (5.1%); flowers and others (5.0%), (source: Central Bank, *Primary Economic Indicators 1993-1997*).

However, because the opening of the economy over the last decade occurred before Colombia had reached its present levels of technological development, its capacity to compete was noticeably reduced. Consequently, some export lines have diminished, including those of the textile and apparel industry, further aggravating unemployment.

Colombian industry, especially medium- and small-scale business, has suffered serious setbacks caused by the long and profound recession gripping the country since 1997.

It is conceded that economic openness has not had the expected results for several reasons: the indiscriminate opening of the economy; difficulties in controlling the devaluation; and the internal economic crisis accompanied by recession.

The country began the year 2000 facing an enormous crisis attributable to neoliberal policy, the political crisis, insecurity and violence, cases of administrative corruption. The crisis gave way to uncertainty and mistrust, devaluation of the peso, lack of economic resources for social services in the areas of health and education, and social problems resulting from the growing population of displaced persons.

As mentioned previously, Colombia's Constitution centers on people and their rights. Accordingly, law establishes poverty as the principal criterion for directing the country's current revenues toward the municipal level.

Moreover, different government administrations have geared their plans toward the goal of diminishing the country's poverty indexes. As a result, since 1986 the country has used the Unsatisfied Basic Needs (UBN) method to measure poverty. As an index, UBN takes into account urban infrastructure development conditions. Indicators developed for this purpose have included inadequate housing; housing without services; critical overcrowding; absence from school; and high economic dependency. Nevertheless, these indicators are considered unsatisfactory. A study on poverty in Colombia pointed out that, with respect to directing government action to families living in absolute poverty, use of the UBN has the potential for major errors in terms of inclusion and exclusion. (Source: National Planning Department (DNP) in the Report of the United Nations High Commissioner for Human Rights on the Office in Colombia, 1998, p. 154).

Another method used to measure poverty is the so-called "poverty line," calculated on the basis of the 1984 Survey of Income and Expenditures. (Source: National Planning Department (DNP) in the Report of the United Nations High Commissioner for Human Rights on the Office in Colombia, 1998, p. 154).

According to a source at the Bureau of Social Security, Ministry of Health, in 1993 the percentage of population with UBN was 36.26% (15,023,209 inhabitants). Regional differences in UBN are marked. For example, 76% of the population of the department of Chocó have UBN, as compared to 17.4% in the Capital District and 24.6% in other departments. The proportion of the population below the poverty line in 1997 was 54%.

While the percentage of the total population living in dwellings with piped water is 70%, this figure is only 44% for the rural population; 67% of the population have excreta disposal services and 61% have refuse collection services.

1993 illiteracy data indicate that 8.6% of the total population was illiterate. The illiteracy rate was 4.7% in urban areas and 19.4% in rural areas. The illiteracy rate for men was 9.7%, while female illiteracy was 8.9%.

Growing unemployment, and the increasing number of families and individuals of all ages as a result of acts of violence are factors that impact people's quality of life and level of health, as well as the possibilities of receiving quality health care in a timely manner. Moreover, there is a need to design and implement adequate strategies aimed at ensuring access to health care for the growing number of the unemployed, which will increase the population that must be served by the subsidized regime or the associated transitional regime, which serves people that do not belong to either of the two regimes.

In Colombia, per capita income is US\$2,040; the annual increase is –15%; and the inflation rate in 1999 was 9.2%.

Despite the major socioeconomic problems affecting the country, both the urban and rural populations have experienced significant gains in health, in the reduction of illiteracy, in greater participation in educational activities, and in per capita gross domestic product (GDP). However, there continue to be major disparities in achievements of the population among different regions of the country, since some regions are more developed than are others. In 1995, life expectancy among the rural population was ten years less than for the urban population. (Source: DNP, Report of the United Nations High Commissioner for Human Rights on the Office in Colombia, 1998, p. 113).

Demographics

According to DANE population estimates for the period 1985-2015, in 2000 the total population of Colombia is of 42,299,301. Of this total, 71.0% (30,048,759) live in urban areas and 29.0% (12,250,542) in rural areas. With respect to the total, 49.5% are men and 50.5% are women.

It is estimated that approximately 2% of the population it is indigenous. These groups are distributed among 90 communities and speak 17 languages, representing the greatest diversity and sociocultural wealth in the country. The total indigenous population, without factoring in 1993 census adjustments, is 532,233 inhabitants. The Colombian Constitution and current legislation of the General Social Security System on Health Care recognize the full rights of these groups. To this end, it is important to collect data on their demographic and cultural characteristics in order to provide them with health care and involve them in the health care process.

Average life expectancy at birth is 67.31 years, 65.90 years for men and 72.84 years for women. Population estimates by age group are as follows: children under 1 year comprise 2.3% (979,452); age 1 to 4 years 9.0% (3,790,531); age 5 to 14 years 21.4% (9, 059,772); age 15 to 44 years 48.6% (20,563,100); age 45 to 59 years 11.7% (4,962,118); and age 60 and older 7% (2,944,328). These figures indicate that the population is aging.

Let us look at population growth. Since the second half of the twentieth century, Colombia's population has increased by more than 28.5 million inhabitants, from 11.5 million in 1951 to 40.2 million in 1997, for an average annual growth rate of 27.1 per 1,000 population.

Reproductive behavior has also changed. While the average number of children born to women was almost 7 children per woman in both 1950 and 1965, it had fallen to 3 children per woman in 1994. This decline in fertility marked a

slowdown in the rate of growth of the population, falling from 29.4 per 1,000 in the period 1974-1985 to 18 per 1,000 in 1997. It is important to note that birth rates are different in each region and department; whereas rural areas average 4.4 children per woman, some urban areas average 2.3 children per woman. In departments with a lesser degree of socioeconomic development, such as Chocó, Guaina, Amazonas, Vaupés, and Vichada, birth rates are 5 or more children per woman. In short, the birth rate has declined over the past 5 years, from 7.0 to 2.3 children per woman.

According to DANE, total mortality per 100,000 population in 1996 was 173,506 deaths, or a rate of 441.7 per 1,000 population. With respect to 1999 and 2000, total mortality is likely to rise as a result of deaths attributed to increasing violence, primarily affecting the young male population.

Health Situation

According to DANE data for 1996 and morbidity statistics of the Ministry of Health, the health status of the Colombian population is determined by total morbidity/mortality figures and by age groups.

In 1996, the population age 15 to 44 years had the highest total mortality, with a rate of 228.4 deaths per 100,000 population (44,006 deaths). This group was followed by the population age 65 and older more with 74,413 deaths, and children under 1 year with a rate of 970.0 per 100 thousand population (10,402 deaths).

Of the seven reported causes of mortality, death attributable to vascular problems was highest with a rate of 129.9 per 100,000 population (51,020 deaths), followed by death due to acts of violence and accidents with a rate of 107.7 per 100,000 population (42,307). As mentioned previously, mortality due to violence and trauma may become the leading cause of death for the period 1999-2000, given the trend of increasing violence in the country.

The incidence of maternal mortality in Colombia begins at age 10 and reaches its highest rate in women between the ages of 20 and 30. In 1994, the leading cause of maternal mortality was toxemia (38%), followed by abortion (16%), hemorrhage (15%), and other causes (31%). Between 1986 and 1994, the country's maternal mortality rate was reduced by 40 points, attributable to improvements in women's access to health services, prenatal care, childbirth and puerperium care, and socioeconomic factors. (Source: DNP, Report of the United Nations High Commissioner for Human Rights on the Office in Colombia, 1998, p. 89). It is important to note nurses perform a large share of maternal health care.

In 1997, morbidity by hospital discharge had the following rates per 100,000 population: care for pregnancy and childbirth, at a rate of 688.0 (275,312 cases);

followed by complications associated with pregnancy, childbirth, and the puerperium, at a rate of 356.4 (142,629 cases); communicable diseases, at a rate of 355.7 (142,365 cases); trauma and emergency injuries, at a rate of 279.1 (111,675 cases); vascular diseases, at a rate of 196.1; and tumors, at a rate of 112.6.

In 1999, reportable diseases had the following rates per 100,000 population: measles, 4.4; rubella, 2.3; whooping cough, 0.8; and neonatal tetanus 2.8 (these vaccine-preventable diseases have the lowest rates due to health policy and actions in this field). The highest rates included *Plasmodium vivax* malaria, 110.7; *Plasmodium falciparum* malaria, 60.1; dengue, 48.9; tuberculosis in all its forms, 16.4; and HIV/AIDS, 6.63.

With respect to health care, of the country's 42 million inhabitants, 9 million are enrolled in the subsidized regime of the General Social Security System on Health Care (SGSSS), while another 16 million are enrolled in the contributory regime. During this period of transition, as the remaining 17 million Colombians join one of the two regimes, should enjoy a basic benefits package (POS) as do members of the contributory regimen. However, given the high rate of unemployment this may not be possible, as it reduces the membership pool of the contributory regime needed to sustain the solidarity fund.

According to a WHO report published in June 2000, Colombia ranks among the better skilled countries in terms of health quality. One of the most notable features of the SGSSS is that the most affluent 40% of the population help to finance health care for the poorest 60%.

Health program successes in Colombia include: 80% vaccination coverage through mass vaccination of children; 70% drinking water coverage for the population; program to promote exclusive breast-feeding; use of iodized salt; mandatory use of helmets for motorcyclists; AIDS prevention campaigns promoting condom use; educational campaigns to curb tobacco use; the "*Ley Zanahoria*" (a law that prohibits Bogotá area night clubs from selling alcohol until after 1 a.m.) to prevent and lower the rate of accidents; and restrictions and controls on fireworks and the use of weapons (*El Tiempo*, 25 June 2000, p. 3.1-3.2). Noteworthy in this regard are promotional interventions targeting exclusive breast-feeding, vaccination, counseling, health education, and HIV/AIDS prevention measures (i.e. condom use), as nursing professionals are responsible for these activities.

Health Care Infrastructure

The enactment of Law 100 (1993) introduced a new model for comprehensive social security in health in Colombia. As stated in the preamble of Law 100: "Comprehensive social security is the group of institutions, standards and procedures, which are available to the individual and the community. Comprehensive social security is designed to promote quality of life through

progressive compliance with plans and programs developed by the State and society aimed at providing comprehensive coverage for contingencies, especially those that undermine the health and economic capacity of inhabitants of the national territory, for the purpose of achieving individual well-being and community integration.”

Article 2 of the same states and defines the founding principles for the delivery of essential social security public services: efficiency, universality, solidarity, comprehensiveness, unity, and participation.

Article 4 states, “Social Security is a mandatory public service, the management, coordination, and control of which are under state control, and that [social security services] will be provided by public and private entities according to the terms and conditions established in the present law.

This public service is essential as it relates to the General Social Security System on Health Care (SGSSS). With regard to the General System of Pensions, it shall be considered essential only in those activities directly related to pension payments.”

Current health care infrastructure reflects changes in public and private institutions existing before SGSSS reform, based on the effect and regulation of Law 100 (1993), and laws enacted thereafter.

According to the Office on Systems Management of the Ministry of Health, the following health entities were operating in 1977: a total of 731 official hospitals, of which 450 were classified level I, 124 level II, and 31 level III; 126 health centers with beds, 43 Social Security clinics; 391 private clinics, 914 health centers without beds, and 3,718 health posts.

However, this information may not accurately reflect the present status of the infrastructure available for the delivery of health services, due to the ongoing impact of Law 100. For example, some health entities have not yet been reformed; some new private health companies have emerged, such as health promoting entities (HPEs) and institutional health service providers (ISPs); and still others are being reorganized under a single management model in order to reduce bureaucracy, limit costs, and perform services more efficiently. During the first months of 2000, some institutions were closed or saw their capacity diminish owing to the economic crisis affecting the health sector.

In accordance with Articles 196 and 197 of Law 100, all decentralized national and regional entities whose purpose is to provide health services should be converted into Social Health Enterprises (SHEs). These companies are to provide health care services for which the State is responsible, or provide these services as part of the public social security service. Each SHE is classified in accordance with

the type of health services and resources it supplies—high, medium, or low complexity.

Changes in the Health System

Since 1985, Colombian public administration has been undergoing constant reform, both of a structural and operational nature, aimed at achieving bigger and better economic and social impact, in terms of improved quality of services and state efficiency. These changes have had an impact on the political, administrative and technical areas of all sectors. Accordingly, this document will concentrate on how these changes have affected the health sector. The Colombian Constitution centers on people. It safeguards people's rights protection, responds to their basic needs, and provides essential social services for their development and self-realization as free human beings.

Accordingly, several articles of the Constitution refer to the care and safeguarding of the rights of children, adolescents, workers, women, the elderly, and the mentally or physically disabled. Likewise, Articles 48 and 49 refer specifically to social security and health services as public services for which the State is responsible, and that are guaranteed to all inhabitants of the country. This idea is summarized in the following: "Social security is a mandatory public service that shall be provided under the direction, coordination and control of the State, based on the principles of efficiency, universality, and solidarity, in accordance with the terms established in the present law (excerpt from Article 48)."

"Health care and environmental sanitation are public services for which the State is responsible. All persons shall be guaranteed access to services of health promotion, protection, and recovery.

Health services shall be organized in a decentralized manner, according to level of care, and with community participation.

The law shall disclose the terms under which basic care for all inhabitants will be free and mandatory.

Every individual has the right to comprehensive health care, as well as that of the community (subsections of Article 49)."

Social security and health sector reforms have been proposed within the constitutional framework. Law 10 (1990) reorganized the national health system by decentralizing the health services and placing them in the hands of the governors and mayors. It also organized the governing boards of the hospitals with the participation of the community organizations and created local and sectional health systems.

Law 100 (1993) created the General System of Comprehensive Social Security, which encompasses health care. In its preamble, social security is defined:

“Comprehensive social security is the group of institutions, standards and procedures, which are available to the individual and the community. Comprehensive social security is designed to promote quality of life through progressive compliance with plans and programs developed by the State and society aimed at providing comprehensive coverage for contingencies, especially those that undermine the health and economic capacity of inhabitants of the national territory, for the purpose of achieving individual well-being and community integration.”

“The Comprehensive Social Security System shall organize institutions and the resources in order to meet the following objectives:

1. To guarantee economic health benefits to employed persons or those that have sufficient economic capacity to join the system.
2. To guarantee the delivery of complementary social services in accordance with the terms of the present law.
3. To guarantee the expansion of coverage until such time as the entire population has been incorporated in the system through mechanisms that, consonant with the constitutional principle of solidarity, make it possible for sectors lacking sufficient economic capacity, such as campesinos, indigenous peoples, independent workers, artists, sportsmen, and community mothers, to be incorporated in the system and provided comprehensive benefits (Article 6, Law 100/1993).”

Article 152 of Law 100 states: “The present law establishes the General Social Security System on Health Care, develops its regulatory framework, determines its direction, organization and operation, its administrative, financing, and control standards, as well as those derived from its application.

The objectives of the General Social Security System on Health Care are to regulate essential public health services and to create the conditions whereby the entire population can access these services at all levels of care (excerpt from Article 152, Law 100/1993).”

This system is governed by the principles of equity, mandatory compliance, comprehensive protection, freedom of choice, institutional autonomy, administrative decentralization, social participation, consensus-building, and quality.

The General Social Security System on Health Care is comprised of:

1. Management, surveillance, and control agencies
 - a) The Ministries of Health and Labor
 - b) The National Social Security Board
 - c) The National Health Authority
2. Administrative and Financing agencies
 - a) Health Promoting Entities (HPEs)
 - b) Sectional, district, and local health directorates
 - c) Solidarity and Guarantee Fund
3. Public, mixed, or private institutional health service providers (ISPs).
4. Other health entities that, upon effect of the present law, are assigned to the ministries of Health and Labor.
5. Employers, workers, labor organizations, and independent contractors that pay into the contributory regime, and pensioners.
6. Beneficiaries of the social security system for health care, in all its forms.
7. Community participation committees "Copacos," created by Law 10 (1990) and community organizations that participate in health subsidies.

The Social Insurance Institute will continue to fulfill its functions in accordance with this law (Article 155 of Law 100/1993).

The law establishes that all inhabitants shall participate in essential public health services provided under the General Social Security System on Health Care. Some will join as members of the contributory regimen, others in the subsidized regimen, and still others will participate temporarily as "linked" (contracted) participants, while in the subsidized regimen (Article 157 of Law 100/1993).

Members of the General Social Security System on Health Care have a guaranteed right to duly organized health care services, delivered in accordance with the following terms:

1. Health care coverage for people under the basic benefits package (POS—*Plan de Atención Básica*) by the respective health promoting entity (HPE), through the assigned Institutional Health Service Providers (ISPs);
2. Nationwide emergency care;

3. Freedom to choose and change HPEs;
4. Selection of ISPs and professionals, within the options offered by each HPE;
5. Participation of members, either individually or through their organizations, in all entities for affiliation, representation, and oversight of the regulatory, promoter, and provider organizations, and of the Social Security System in Health (excerpts from Article 159 of Law 100/93)."

The population receives benefits of the Basic Care Plan (PAB) covering treatment of major illnesses. The PAB is universal, comprehensive, and complementary.

Direct health care service delivery by the national or territorial entities will be primarily conducted through Governmental Social Enterprises (GSEs). These constitute a special category of decentralized public entity, with legal status, independent capital, administrative autonomy, created by law (or by assemblies or councils, according to case), and subject to jurisdiction as foreseen in Article 195 of Law 100.

Law 100 stipulates that all the decentralized national or territorial entities whose objective is to provide health care services, should be converted into Social Health Enterprises (SHEs).

Since 1995, the Ministry of Health has issued guidelines for the standardization of processes. These guidelines are designed to help health entities in their transition to SHEs incorporate the principles of quality and efficiency as a competitive strategy, increase productivity, reduce costs, and achieve greater user satisfaction. In this regard, the standardization process seeks to eliminate barriers that delay or interrupt workflow, and that modernize processes with an eye toward efficiency and cost-effectiveness—always based on user well-being.

Upon completion of studies on user care activities/operations, a new hospital organizational model was proposed. This model centers on *functional areas* and *functional units*, which address basic functions aimed at ensuring company improvement objectives, including specific management or steering functions, user care responsibilities (or delivery of services), and support/logistical support functions.

Functional units are defined on the basis of functional areas, understood as a group of related processes within a functional area. For example:

- The functional area of user care would include descriptions of functional units in the areas of hospitalization, emergency care, outpatient consultation, diagnostic support services, treatment support services, operating rooms, and delivery rooms.

- The functional area of logistics would include identification of functional units in the areas of physical, human, financial, and information resources, as well as maintenance and basic services.
- The functional area of corporate management would include identification of functional units in the areas of planning, management, legal, and marketing control.

This new organizational model, based on functional areas and their respective functional units, has resulted in a traumatic transition for nursing personnel, as it has had the effect of rendering traditional nursing services and departments obsolete. Nursing professionals and auxiliaries are integrated into interdisciplinary teams or groups of professionals and auxiliary personnel assigned to the different functional units of the functional area of user care.

In 1999, Decree 1152 reorganized the Ministry of Health as the steering authority of the General Social Security System on Health Care. In addition, the reorganization is structured along specific areas and care processes. Interdisciplinary working groups are assigned to each of these areas. Article 32 of Decree 1152 grants the Minister of Health the power to create and organize internal working groups for the purpose of working efficiently and effectively toward achieving Ministry objectives, policies, plans, and programs. The Minister of Health created the following internal working groups in 5 areas of management responsibility, assigning a coordinator and respective functions to each group.

Office of the Minister of Health

- Private Secretariat Group
- Communications Group
- User Care Group

Legal and Legislative Support Office

- Social Security Group
- Legal Defense Group
- Administrative Affairs Group
- Legislative and Normative Support Group

Liaison and Domestic Support Office

- Monitoring, Follow-up, and Evaluation Group

- Technical Assistance Coordination Group
- 1. Office of Sectoral Policy Analysis and Planning**
 - Policy and Sectoral Studies Group
 - Planning and Sectoral Programming Group
 - Monitoring and Evaluation Group for Policy and Planning
 - Information Systems Group
 - Computer Support Group
 - Comprehensive Health Information System Development Group
 - 2. Office of Financing and Financial Management**
 - Fiscal Resources Group
 - Parafiscal and Other Financing Sources Group
 - Comprehensive Financing Group
 - Office of Financing and Fin. Mgmt. Administrative Support Group
 - 3. Insurance Bureau**
 - Promotion of Affiliation and Citizen Participation Group
 - Cost Analysis and Demand for Health Services Group
 - HPE and **ARS** Regulation and Monitoring Group
 - Worker Health Promotion Group
 - Insurance Bureau Administrative Support Group
 - 4. Office on Development of Health Services Delivery**
 - Supply and Demand for Resources/Services Analysis Group
 - Supply of Services Development Group
 - Supply of Services Management Group
 - Management Strengthening Group

- Emergency and Disaster Care Group
- Office on Devel. of Health Services Delivery Admin. Support Group

5. Public Health Directorate

- Health Protection Group
- Disease Prevention and Control Group
- Health Promotion Group
- Public Health Surveillance Group
- Territorial and Institutional Management Group
- Ethnic Affairs Group
- Public Health Directorate Administrative Support Group

The 20 nursing professionals currently employed by the Ministry of Health were hired through a variety of different contracting systems and participate in different internal working groups, primarily in the Public Health Directorate, the Insurance Bureau, the Office on Development of Health Services Delivery, and in the Information Systems Group. These are interdisciplinary groups, thus their work is not based on their professions, but on the contributions of each profession to the functions the working group is responsible for developing. The placement of nurses in working groups is not based on profession, but on a nurse's profile as a professional or specialized professional. (The table in Annex 1 indicates the nurses placed in each group.)

There are no specific positions designated for nurses or for other professions in the Ministry of Health.

During a reorganization of the Ministry of Health in the late 1960s, the nursing unit or department was eliminated. Subsequent reorganizations of the Ministry eliminated specific positions for nursing professionals.

Professionals can compete for different positions, in accordance with their preparation and experience. In this regard, nursing professionals compete with other professionals on the basis of academic preparation, including professional and research experience. Nursing professionals who are well prepared and demonstrate competence and skill will be able to move into more positions. This has been a positive aspect of system reform, providing nursing professionals with employment opportunities at the various organizational levels. However, to date

nursing professionals have had limited possibilities for securing senior management positions.

Employment conditions are similar at departmental health secretariats as well as that of the Capital District of Bogotá, where nursing professionals are employed as administrators, advisers, group and program coordinators, and hospital managers. This means that nursing is becoming competitive on the basis of skills, as well as undergraduate and graduate-level preparation.

Human Resources: Profile of Nursing Professionals and Auxiliaries

There are no professional midwives in Colombia. However, there are two categories of nursing personnel: nursing professionals, who possess a university education; and nursing auxiliaries, with training in the nonformal education system, who receive a technician/nursing auxiliary certificate.

According to data of the Ministry of Health, in 1994 there were 11,762 professional nurses, 36,236 physicians, 19,059 dentists, and 35,433 nursing auxiliaries working in the country. The nurse-to-doctor ratio was .42, the lowest in the Americas after Chile (.38).

According to ACOFAEN estimates, in 1999 there were 24,000 nurses in the country, equivalent to 5.7 nurses per 10,000 population. According to ASCOFAME data, as of March 2000 there are a total of 43,166 physicians operating in the country. Of these, 24,717 are general practitioners and 18,449 are specialists. This indicates that there is 1 nursing professional per 1.8 physicians. These data underscore the serious and persistent shortage of nursing professionals with respect to the total population and need, the total number of physicians, and the indicators for Latin American and other countries of the world. However, one could conclude that this is not the case, considering the lack of mandatory positions for the fiscal year and the assertions (unverified) of some professionals about unemployment. These situations may be indicative of an excess number of professionals with respect to the country's employment capacity. Given financial constraints facing institutions, they are unable to increase the number of positions for nursing professionals and thus, may not be meeting essential minimum requirements.

In 1999, there were 58,796 nursing auxiliaries working in the country, representing 13.9 nursing auxiliaries per 10,000 population. Over the last 25 years, institutions have worked to progressively eliminate auxiliary nursing personnel with no formal training, known as nurse's aides. The National Training Service (SENA), implemented nursing auxiliary training strategies aimed at people hired as nurse's aides who met the age and schooling requirements for nursing auxiliary school.

Currently, opportunities are becoming available for nursing auxiliaries to pursue university programs for a professional nursing degree, provided that

applicants have successfully completed high school education and pass the university admissions exam. This decision was adopted after a 1985 national nursing study found that 35% of nursing auxiliaries had completed high school (11 years). This fact led to the study and design of a plan to train this group as nursing professionals. However, experiences like these have only begun to emerge since 1998. From a pedagogical standpoint, the results of these experiences have been satisfactory. However, this has not been the case in terms of labor, in that once auxiliaries complete their professional studies, they are no opportunities for advancement into positions for nursing professionals or wage increases.

In Colombia, academic training for nursing professionals is conducted at the higher education level, in officially recognized schools of nursing or institutes.

The minimum requirement for nursing curricula or degree programs is 8 semesters (4 academic years), although some programs have a curriculum of 5 academic years. The latter option is permitted under the Law on Higher Education (Law 30/1992).

In order to be admitted to nursing degree program, applicants must meet the same admission criteria and pass the same examinations as required by the Ministry of Education and applicants to other university degree programs.

As of January 2000, there were 35 university nursing programs operating in the country, graduating between 600 and 850 professionals annually.

Over the last two decades, nursing degree programs have modified their approach and curriculum structure with respect to contents, methodology, as well as strategies for teaching and learning. Consequently, nursing curricula are more flexible and have a more social and humanistic orientation. These programs follow the approach that stresses health and the care of life, with emphasis on providing the population with comprehensive care and not simply treating disease. This approach places greater weight on care aimed at the community, families, and specific population groups. Accordingly, this approach employs measures aimed at health promotion, disease and risk prevention, building healthy lifestyles, self-care of the individual and the family, and participatory care systems. Moreover, the approach emphasizes the incorporation of ethics, the humanization of care, and bioethics in the health care.

In general, curricula take into consideration health policy and priority problems affecting the health of the Colombian population. Accordingly, these programs provide graduates with the knowledge and skills they need to participate in health care processes. However, each school of nursing exercises autonomy in the design of its curricula, in accordance with the philosophy and pedagogical guidelines of each university.

Importance is attributed to the development of research skills, capacity for critical situation analysis, and decision-making, both in the assistance role of nursing care and in that of services management.

The Colombian Association of Schools of Nursing (ACOFAEN), ranks schools of nursing and nursing programs that meet established quality standards, sets guidelines for processes in order to ensure ongoing progress in nursing education, and promotes the accreditation process established by the national government aimed at ensuring the quality of academic programs. ACOFAEN is in charge of preparing the national development plan for schools of nursing, channeling resources, and carrying out development monitoring.

Pursuant to the provisions of the Law on Higher Education, specialized 1-year and 1 1/2-year graduate-level nursing programs are offered in the country, as well as 2-year master's degree programs. These programs follow academic standards of higher education established by the Ministry of Education and are designed to prepare expert professionals in specialized areas of nursing, or nursing researchers.

According to a study of graduate nursing programs in Latin America carried out the Pan American Health Organization (PAHO) in 1994-1995, Colombia offers 31 graduate-level programs at 12 different schools of nursing; 25 are specialized degrees and 6 are master's degrees. With respect to the specialized degrees, 12 are in nursing and 13 are interdisciplinary. Of the 6 master's degree programs, 4 are in nursing and 2 are interdisciplinary.

Flexible study plans constitute one of the main trends in nursing education at both the undergraduate and graduate-level, providing innovative distance learning and "semi-presential" course offerings. This has led to a need to prepare educators in these methodologies, and to adjust their contents to the needs of nursing education.

Interdisciplinary or multidisciplinary graduate-level programs are another emerging trend.

A consortium of five universities is preparing a plan to offer a doctorate program in nursing beginning in 2001.

University-level programs for nursing education are subject to the current legal provisions of Colombian legislation on higher education. At present, the prevailing standard is Law 30 (1992), which forms the organizational basis for higher education in the country. This law establishes the objectives and principles of higher education and its spheres of action; it defines the nature of and general requirements for programs and institutions of higher education; it establishes the degrees awarded by institutions of higher education, defines their autonomy, and establishes standards and criteria for their creation and operation; it defines the

advisory agencies and promotion, inspection, and surveillance activities carried out by the State; and also establishes the accreditation system. This law and its regulatory decrees govern all university nursing programs operating in the country. The Ministry of Education is the steering authority, providing guidelines and supervision through the Colombian Institute of Higher Education (ICFES), the National Board of Higher Education (CESU), and the National Accreditation Committee (CAN).

With respect to auxiliary nursing personnel, who comprise the second category of personnel, at the beginning of the 1990s there were 34 nursing auxiliary programs under the supervision of the Ministry of Health in coordination with the Ministry of Education. Currently, there are some 150 nursing auxiliary programs (unconfirmed) within the nonformal education system. Of this number, 131 are recognized by the National Council for Human Resources Development in Health, and 8 programs are administered by the National Training Service (SENA), offered in different regions.

The prevailing standard for nursing auxiliary programs is Law 115 (1994), providing the legal basis for all matters associated with nonformal education. Decree 0114 (1996) regulates the creation, organization, and operation of programs and institutions of nonformal education, which applies to the creation and operation of nursing auxiliary programs, and Decree 614 (1984), regulating nonformal education for all the health auxiliaries. A few higher education entities, known as professional-technical institutions, offer nursing auxiliary programs as part of a professional-technical program. However, their situation has not been defined.

Traditionally, nursing auxiliaries programs have been offered as 1-year programs. The current standard is a curriculum of 1,800 hours requiring candidates to attend supervised practicums and that these be scheduled during the day, with an option to fulfill theory requirements during day or evening hours. These programs provide training in performance of technical and auxiliary tasks related to nursing care in hospital and outpatient facilities, within health promotion and disease prevention programs.

In Colombia, nursing auxiliary programs are carried out in institutions of nonformal education, where advisory services, supervision, and control functions are performed jointly by the Ministries of Health and Education through the National Council for Development of Human Resources for Health, created by Decree 1849 (1992), and the Council's departmental committees, created by Executive Agreement 12 (1995). These agencies determine the minimum contents, which are published in the profile manual for the different types of health auxiliaries. Moreover, these agencies offer guidelines for organizing curricula and requirements for nursing auxiliary programs, conduct evaluations for the creation

and approval of programs, and perform supervisory and control functions, as well as apply sanctions.

The Reform Support Program, created within the context of an agreement with Harvard University, which also includes participation of ACOFAEN and SENA, conducted a study of nursing personnel functions, activities, and duties with a view to making recommendations for the vocational education of different categories of nursing personnel. The results showed a very high percentage (80-85%) of overlap in the duties of nursing professionals and auxiliaries. This study has shed light on the situation and existing problems and lays the foundation for new analyses and studies aimed at decision-making on the matter (an unpublished report exists that lists the methodology and results).

CASE STUDY PART II: CONTRIBUTION OF NURSING TO DEVELOPMENT AND ACHIEVEMENT OF HEALTH SYSTEM GOALS

Nursing has always been recognized as an essential human resource. It contributes with its humanistic spirit, attitudes and knowledge, and advances in nursing science and technology, toward providing care that is comprehensive, humane, ongoing, and timely. Nursing reaches the heart of the individual, the family, and community groups with the support and the care it provides, in addition to its contribution to serving the needs and priority problems of well-being and health.

In Colombia as in other countries, nursing represents the largest group of health workers and professionals and has the most direct contact with people in terms of meeting their needs. Furthermore, nursing professionals have managed to position themselves within the health team as professionals with excellent academic, ethical, and humane training, and with great social sensitivity. Unfortunately, the value of many nursing interventions, associated with the technical and humanized aspects of health care, remains intangible or invisible as they cannot be measured and translated into costs or quantified added value.

The approach to this part of the case study will be based on the protocol of the six proposed objectives for analyzing information supplied by nursing professionals in different positions, through interviews, surveys, and the limited available documents in this regard.

Objective 1: To determine how nursing has contributed to strengthening the performance and achievement of health system goals with regard to:

- a) Delivery of services;
- b) Development of resources; and
- c) Care given in terms of people's real expectations.

Nursing interventions in health promotion and disease prevention have been those with the greatest influence and importance in terms of health services delivery and the development and achievement of the country's health system goals.

Nursing professionals, given the academic preparation they receive in Colombia, possess a broad and holistic vision of the sociocultural context and the health situation. Nursing health care interventions follow a comprehensive approach with respect to the individual, the family, and the community. These

skills are applied in the nurse-user relationship, in the nurse-community relationship, and in all process of nursing and health care.

Nursing professionals approach their work with an individualized and global vision of the situation of the people to whom they provide care, taking into account aspects of the environment and the social context. This ability has helped nursing professionals contribute efficiency to interdisciplinary and intersectoral work, which is currently required in Colombia's General Social Security System on Health Care.

The profile of nursing professionals is increasingly recognized as the most adequate in terms of contributing to the different health care scenarios, but especially in the area of community and group care, in accordance with health policies. However, because interventions carried out to meet basic health system functions are done so as an interdisciplinary health team, it is difficult to isolate from reports the specific contribution of nursing professionals and of the team of nursing personnel.

This task is even more difficult given the lack of national level studies as to specific evidence of the effects of nursing interventions on the health situation and on the development and achievement of health system goals.

Mortality and morbidity indexes are not the most appropriate measures for evaluating the impact of specific nursing interventions, or those made by any other profession for that matter. These indexes are the result of interdisciplinary actions, the product of policies, the allocation of resources, and environmental interventions; in short, the interventions of the health team as a whole. Thus, it is necessary to define other criteria in order to assess the impact of nursing interventions.

The professionals interviewed expressed the aforementioned concepts. Upon reviewing the databases, most of the available studies consist of theses or case studies, which are descriptive studies of situations or institutional experiences, carried out as primary care pilot projects in promotion and prevention. Consequently, these studies do not succeed in measuring the impact of nursing interventions (examples included in Annex 9).

There is a clear appreciation for the contribution of nursing in the delivery of services in health actions and programs in the areas of health promotion, disease prevention, and detection/prevention of risks. There is recognition of the value of the participation of nursing professionals in the area of perinatal maternal care (although not quantified), in order to promote safe maternity without risks; in the area of health care of children under 6; and in the immunization program. Some 80%-85% of the interviewees acknowledge the contribution of nursing in these

areas. Moreover, progressive nursing interventions in the area of occupational health are also evident.

With respect to the HIV/AIDS program, interviewees identified the role of nursing personnel as that of counselors to the individual and family, providing them with support and assistance in times of crisis. Generally, users first seek consultation with a nursing professional. Statements presented in panel discussions, seminars, and those made by the affected individuals and their families attest to this fact. One nurse reported, "The nurse is the first person the patient looks for; the nurse serves as a liaison for solving their problems and those of their families." It was reported that nurses lead this program at one level III health institution, and that it is considered a model program.

With respect to AIDS prevention, the population groups receiving the most attention from nursing personnel are adolescents, school teachers, drug addicts, prison inmates, sex workers, and homosexuals. Reports are drafted jointly by the health team. Thus, the impacts of nursing interventions are not specifically identified, quantified, or measured.

Another notable intervention involves the organization of health services. Here, the leadership capacity of nursing professionals is more apparent. At the first or operating level, nursing professionals are responsible for providing the entire basic health care package. Nursing professionals assume responsibility for coordinating the Basic Care Plan (PAB) and the Compulsory Health Plan (POS), providing these services directly to the individual, the family, and community groups. Data regarding the number of nurses holding these positions exist in the personnel registries of each departmental health secretariat. There are no documents containing data on the impact or performance efficiency. However, the fact that nursing professionals remain in these positions, and that this trend is progressively rising, serves as a positive, although indirect indicator. One nursing professional interviewed, a manager of a level I hospital, was selected by the community, "because she knew and showed interest regarding the community's health care needs." This hospital also received recognition for efficient management.

With respect to hospital health care services, the heads of the hospitalization departments are primarily physicians, but some are also nursing professionals. Nurses coordinate the functional units. With respect to outpatient departments, nursing professionals are responsible for implementing projects and programs.

Changes in the organization of services introduced by health system reform, facilitate greater involvement of operating level nursing professionals in all planning, implementation, and evaluation processes, as well as the opportunity to demonstrate their skills for the purpose of improving productivity and service quality. In addition to their participation, nursing professionals are consulted with a

view to establishing priorities and allocating resources for local health plans. Nursing professionals also serve as coordinators for most projects and programs. (Annex 2 provides examples of management positions held by nursing professionals in departmental health secretariats.)

Currently, nurses coordinating projects and programs prepare monthly, quarterly, semiannual, and annual management reports reflecting health worker performance. These reports include indicators of performance (hours worked hours and number of activities carried out), productivity (contracted hours and activities carried out) concentration (number of care activities per user), and coverage. There are no quality-specific indicators regarding user satisfaction. Thus, user information and user care offices evaluate user satisfaction by means of surveys, suggestions, and complaints.

Management reports could be analyzed in order to identify the contribution of nursing personnel. However, this is not done because these reports show the productivity of the interdisciplinary group as a whole in achieving health care goals, the behavior of the patients admitted (indicating whether or not they are self-sufficient), and the financial equilibrium of the health institutions of the locality.

The Comprehensive Maternal and Child Care for Community Development (AIMIDEC) project is an example of a successful community health services delivery experience in promotion and prevention, with effective nursing personnel leadership. Hope Monterrosa, a nurse and professor of the School of Nursing at the Universidad Nacional, headed the project, which was financed with support from the W.K. Kellogg Foundation. The project was carried out over the period 1996-98 in five neighborhoods of the municipality of San Cristóbal Sur. This municipality, with a population of 18,000 inhabitants, is classified as having the second highest index of extreme poverty and vulnerability in all of Bogotá. Findings from the survey, "Health Behaviors" (1990), served as the basis for defining project goals and objectives. In order to achieve the established goals and impacts, specific objectives, products, activities, and processes were outlined, identifying at the same time, the necessary human, locative, and material resources. Between 1992 and 1995, periodic evaluations were carried out on the health status of population groups within the project area of influence. Favorable changes were seen with respect to most of the designed indicators. The main achievements included:

- Increase of the percentage of children exclusive breast-fed from birth through 3 months, from 20% in 1990 to 51.9% in 1992;
- Expansion of vaccination coverage among children 9 months of age, with complete vaccination schedules, from 44.1% in 1990 to 92.3% in 1992;
- Reduction of the low birthweight rate, from 12.4% in 1990 to 8.1% in 1992;

- Increase of the percentage of adequately nourished schoolchildren, from 45.0% in 1990 to 48.0% in 1992;
- Increase of the percentage of women screened for cervical cancer in the past year, from 41.3% in 1990 to 62.32% in 1994.
- Reduction in the percentage of teen pregnancies with respect to the total number of pregnancies, from 25.8% in 1990 to 24.7% in 1993;
- No desirable changes were observed in acute diarrhea diseases and acute respiratory infections, probably due to insufficient project action, in view of the unfavorable environmental condition that predominate in the area;
- 70.0% of pregnant women were detected before week 20 and 96.8% of intake interviews were conducted by community nurses; users had a high level of satisfaction with the care received; and
- 91.0% of pregnant women of the area of influence participated in some type of prenatal care program. Of these women, 42.9% were attended by community nurses.

This experience managed to improve health conditions of the maternal and child population. It showed innovation in the delivery of the health services with a multidisciplinary contribution: a kind of educational experience in primary care and community work. In addition, a management information system was created for the project and included a subsystem of health information, as well as a nursing documentation and information center. Moreover, a health care cost recovery system (based on quotas) was designed together with community, making it possible to integrate this experience in the health system reform process as an ISP, known as VIVR, Ltda., which houses a Community Health Cooperative (CHC).

The Network of Perinatal Care of Southwestern Bogotá came into being, as did the Network of Stomatology, Oral and Maxi-facial Surgical Services.

Provided that nursing initiatives are drafted in accordance with the policies and directives of the health system, they have potential for providing continuity and sustainability to investments in knowledge, resources, and financial aid, thus ensuring improvements in education, health services, and community well-being (Annex 10, final management report).

It is possible that other successful experiences in the country may exist, but were not identified due to time constraints.

Some groups of nursing professionals have joined together or formed organizations to offer home nursing care, either selling these services to an ISP or develop programs in given areas of influence. Generally, the approach of home

nursing care programs does not promote prevention or reduction of risks, and are primarily geared toward providing hospital services in the home setting.

With respect to the care of the terminally ill, there are interdisciplinary associations with member nurses who care for these individuals and their families. Moreover, nursing professionals participate in pain-management centers or alternative treatment clinics. These are mentioned in the writings of Clemency Uribe Alarcón, a nurse and vice president of the Foundation for the Right to Die with Dignity (DMD) (DMD literature available).

The social security system reorganization offers the possibility of outsourcing nursing services. However, no experiences exist in this regard and there are a lack of advisory services that would be needed in order to help nursing personnel implement and sell this type of service.

Nursing professionals do not directly participate in the financing of health care for the poorest of the population. They help advice people with limited resources on how to obtain their classification and membership in the subsidized regime (SISBEN), or how to qualify for the transitory regime.

The work of nursing professionals is apparent and recognized in the community. Nursing professionals motivate communities to organize and participate in health and environmental care. The work of nursing professionals is based on the demographic and epidemiological studies to detect risk factors in different ecological niches, including interventions aimed at prevention. Nursing professionals participate in the preparation of local health plans, which include these aspects. (Annex 3 provides an example of a local health plan that includes the participation of nurses.)

With respect to human resources development, nursing has contributed by promoting the quality of university education in professional nursing, as well as courses and activities aimed at updating nursing skills. This contribution is documented in the annual reports of programs, publications of the Colombian Association of Schools of Nursing, and in each of the country's schools of nursing. Also important in this regard is the creation of nursing accreditation programs at three universities, which are among the country's first university programs to successfully startup accreditation processes. (Source: accreditation reports on accredited nursing programs at the Universidad de Caldas, the Pontifica Universidad Javeriana, and the Universidad de Antioquia.) Progress in the accreditation process is one of nursing's contributions in terms of quality preparation of professionals who will provide their services in the social security system.

Likewise, an additional contribution has been the strengthening of graduate-level specialized and master's degree programs in nursing. The program areas of

emphasis help provide responses to health system needs. For example, graduate-level programs include family health, cardiovascular health, maternal and perinatal health, emergency care, group health, occupational health, and care of the chronically ill, among others. (Source: report on graduate studies in nursing from six Latin American countries and the reports on graduates in the universities.)

Yet another contribution has been the formation of an educational consortium of schools of nursing at five universities in order to offer a doctorate program in nursing. The program is designed to train investigators in nursing for the purpose of promoting and leading change in nursing care and education, based on research. The program's lines of research will support achievement of health system goals, such as nursing care centered on more vulnerable groups, group health, women's health, family health, and measurement in nursing. (Source: doctoral program coordinated by ACOFAEN.)

However, the main contribution of nursing to the population's health status has consisted of intense work in, priority for, and vast commitment of nursing to health promotion. This includes promotion of healthy lifestyles, the mobilization of communities and their leaders toward establishing healthy neighborhoods and municipios, advances in risk-free maternity, achievements in happy mother- and fatherhood (project of nurse Liliana de Ramírez "*Maternidad y paternidad vivida*"), as well as efficient organization and management of programs and health services.

Another important area involves determining the expectations of health and nursing care users. This aspect is addressed in the reform of the social security system. To this end, all health institutions of HPEs and ISPs are required to maintain a "User Information Office" to promote and monitor the quality of care and user satisfaction with services (Article 53 of Law 190/1995 and National Health Authority Circular No. 009 (1996).

Thus, nursing has contributed in different ways:

- The national program for strengthening ethics and bioethics in education and in nursing was created in 1991 and carried out under the leadership of ACOFAEN, with participation on the part of the health services. (Source: ACOFAEN Annual National Plan and various reports, Code of Ethics, [Pan American Bulletin on Nursing Ethics](#), reports from international seminars on nursing ethics held in Colombia, Mexico and Chile, consultations with nurses specializing in nursing ethics.)
- Advances in nursing education in ethics and bioethics. Over the last 5 years, approximately 10 nurses have been trained as specialists in bioethics, and many participate in continuing education programs in this discipline. (Annex 4, ACOFAEN program for strengthening ethics in nursing education and practice.)

- Nursing professionals continue to hold leadership positions on hospital ethics and bioethics committees. One nurse coordinates ethics training at the national level, financed by the Ministry of Health. (Source: publication on clinical bioethics committees.)
- Nursing professionals motivate and guide activities/programs on the humanization of health care at several health institutions.
- Nursing professionals participate actively in interdisciplinary groups, centers, institutes, and bioethics academies, as is evidenced from their participation in publications in these disciplines.

There are no studies that measure the impact or effect of these nursing interventions in terms of user satisfaction.

User information offices/user care offices conduct user satisfaction surveys and also analyze direct complaints, as well as those received in suggestion boxes. These systems facilitate awareness of the primary deficiencies that need to be corrected. In this regard, only negative aspects are detected; rarely are any positive aspects of user satisfaction received through these channels.

In some level III health institutions, groups of nurses working on quality standards for nursing were identified. These groups have prepared documents that describe the conceptual basis and processes applied at their institutions. (Source: reports and publications of the quality assurance group of the Fundación Santa Fe.)

Four years ago, the director—who is also a nurse—of the Hospital Primitivo Iglesias, a level I facility, implemented a model of organization and operation. The model promotes comprehensive development of human potential based on values, change of attitudes, positive mental attitude, and teamwork. All professional, technical, and auxiliary staff is included in the program. The program has produced positive results with respect to the organizational and work environments, as well as user attitudes. (Source: progress reports of the Hospital Primitivo Iglesias.)

Objective 2: To identify the factors that have facilitated or limited nursing contributions to essential functions of the health system with respect to:

- a) Delivery of services;
- b) Resource development;
- c) Financing;
- d) Health of the population; and
- e) Attention to the real expectations of people.

The most helpful factors in terms of strengthening the participation of nursing in essential functions of the social security system, include academic preparation of the nursing professional—which, as was mentioned previously, provides the nurse with a comprehensive, holistic vision of situations—, training in social and human sciences, and in services management. Together, these factors allow nursing professionals to develop skills that, according to personal aptitude, they can continue to improve on. This enhances the career of nursing professionals, providing opportunities for them to perform successfully in different jobs within the interdisciplinary context. Graduate-level education has also had an impact in this regard, especially in terms of opportunities for nursing professionals to enter interdisciplinary programs.

Because the health system encourages nursing professionals to compete for and maintain leadership and advisory positions, they feel obliged to continue graduate-level education—not only in nursing, but also in interdisciplinary programs and continuing education. In fact, most of the nurses interviewed reported that they pursue interdisciplinary graduate studies during weekends.

Graduate programs in nursing and other disciplines offering flexible hours and other innovations, such as distance learning, facilitate the advanced preparation of and continuing education for nurses, helping them improve performance in the context of changes due to health and social security reform.

Over the past five years there has been a noticeable proliferation of nursing auxiliary programs, although few steps have been taken to ensure their quality. As noted earlier, there were 34 such programs before 1994 and approximately 150 by 1999. Of this number, only 131 are approved by the National Council of Human Resources Development in Health. This can be a limiting factor regarding the delivery of health services. The nursing profession needs to strengthen its control and participation in order to define the objectives and contents of these programs, taking decisions aimed at defining the knowledge and skills required in nursing auxiliary education.

Another nursing contribution to the health system is its capacity and skills in terms of the organization of services. The comprehensive view of health care needs of people and the community adopted by nursing professionals has made it possible for them to effectively adapt and contribute to the reform.

One positive aspect is the growing awareness of nursing professionals as to their worth. Thus, the more the system takes into account the value of nursing interventions, the more it appreciates the contribution of nursing personnel to productivity. According to a PAB coordinating nurse at a level I care facility, “Nurses are a productive resource for the health care industry, they help lower costs without undermining quality.” While there are no studies that support this position, it is nonetheless true. This same coordinating nurse also pointed out that

nurses conduct a high percentage of medical consultations (75% or more) of children under 5, expectant mothers, and women of childbearing age.

One limiting factor of social security system reform in terms of placing nursing personnel in the functional units, is that it limits their role. In addition, nursing professionals serving as the coordinator of hospital functional units continue to be assigned a large number of administrative and logistical duties that previously fell to nursing departments.

The new organizational structure caused the functional unit to lose sight of objectives with respect to nursing philosophy, policies, and levels of action for hospital nursing care and to maintaining communication and information channels, as well as participation at the senior management level, where policies are defined and decisions made. A group of nursing professionals in the Capital District is working to design a functional model for nursing management that adjusts to requirements of the reform and that corrects the limitations encountered. To date, reports have been limited to work projects and discussion forums carried out.

Another hindering factor concerns the limited experience of nursing personnel in assessing the costs of nursing interventions. Billing functions have been assigned to nursing professionals because they are positioned to have a continuous and comprehensive vision of the health care received by users. And moreover, because nursing personnel have managed to understand the important role of the cost and billing system in assessing working situations with a view to achieving financial balance of health facility functional units. This is of key importance in evaluating the efficiency and productivity of personnel and of the health institution within reform guidelines. Although nursing professionals have improved their knowledge and skill base, they also express a need to strengthen this area.

It was determined that there is no national strategic plan for nursing development to ensure that these concerns are effectively addressed in social security system policies. However, the associations make effective contributions through programs they develop within the strategic plans that orient their activities. The following is a summary of their contributions:

- The National Association of Colombian Nurses (ANEC), a union organization, helps strengthen nursing in several areas. Specifically, by its work in the socioeconomic sphere in improving the quality of professional practice, promoting legislation and regulation with a self-regulation approach, promoting professional ethics, a nursing registry, and in taking positions on various policies related to nursing and maintaining information and communication channels with governmental, national, and international agencies. Projects that facilitate contributions of nursing to essential functions of the social security system include: 1) development of leadership skills for change (315 professionals trained in management and leadership degree program); 2)

development of leadership for negotiation; 3) participation in the preparation of the International Classification of Nursing Practice (CIPE); and 4) regulation of Law 266 (1996), which regulates the nursing profession in Colombia.

- The Colombian Association of Schools of Nursing (ACOFAEN) lists the schools of nursing that meet its affiliation criteria. ACOFAEN's strategic plan carries out activities that strengthen the contributions of nursing to the social security system. These include: 1) qualitative improvement of nursing education; 2) strengthening of ethics and bioethics components in nurse training and professional practice; 3) promotion of research; 4) strengthening advanced training in nursing, from the graduate-level through nursing doctorate; 5) development of joint activities with the Ministry of Health to strengthen projects and programs in the areas of health promotion, breast-feeding, and curbing drug abuse; 6) preparation of 12 nursing care guidelines, based on scientifically proven methods; 7) project for strengthening nursing management; and 8) coordination of activities with other agencies, such as with the Ministry of Health in disseminating information on system reform; dissemination of the Uniform Classification of Health Procedures (CUPS) with ANEC and the Capital District Health Secretariat in forums on organization and nursing productivity in the sociopolitical context of the social security system.

Proof of the facilitating function of nursing organizations is documented in the annual reports of these organizations, promoting the active participation of nursing in essential functions of the social security system.

With respect to leadership development, contributions have been made by nursing organizations through their strategic plans; teaching institutions through basic academic, graduate-level, and continuing education; and the government through the development of standard requirements that make it possible for nursing professionals to access different leadership and advisory positions, according to their professional qualifications, and not merely based on profession. At times, this last factor can be affected by the role of political influences in recruiting for these positions.

With respect to policy formulation, the impact of nursing professionals is seen as hindered due to their limited representation at decision-making levels. Nursing professionals more often participate in project and program development. For example, one nurse at the management level stated that a gap exists in nursing participation on the National Social Security Board and on sectional social security councils. Given their knowledge of health situation and health care services, nursing professionals are well poised to make very significant contributions.

ANEC representatives point to a lack of formal channels of communication that would allow nursing professionals to participate with proposals and suggestions on the different projects. Other professionals believe that nursing personnel often fail

to study policies on a timely basis, and that this limits their ability to submit sound proposals. Furthermore, it is recognized that nurses lack experience in political matters and that their possibilities of working in this field are limited. There is no documentation available with respect to positive experiences in this field, aside from nursing professionals' lobbying efforts to win approval of the law that regulates nursing.

With respect to general legislation, nursing professionals have been very limited and do not participate in the preparation of draft legislation on health and education. They can participate in congressional debates of these laws, but have not done so. Consequently, the participation of nursing professionals in this area is reduced to the study, analysis and application of approved legislation. Nurses who work at the Ministry of Health participate in the preparation of standards and regulations for health and social security legislation, but in their role as members of interdisciplinary teams.

ANEC has participated in the preparation of standards on occupational risks with respect to the study and review of the International Labor Organization (ILO) resolution on safe maternity.

ANEC, as well as nurses in general, actively participated in the preparation and approval process of the law on nursing, and are working on both regulatory aspects and preparation of a law on nursing ethics.

Objective 3: To determine how changes have affected health policies, legislation, regulations, as well as socioeconomic and political aspects, in terms of the effectiveness of nursing interventions.

Clearly, changes in the approach and organization of the social security system have had an impact on performance, giving rise to a rethinking of the role of nursing, and recognizing its major strengths, potential, and deficiencies. With respect to the operational field, these changes have made it possible to demonstrate and recognize nursing's effectiveness, as interviewees expressed in the following points.

There has been a rapid transition from a bureaucratic model of organization dependent on a paternalistic state, to a model based on participation of the community and its people in aspects of organization and financing. This new model follows a management approach geared toward processes of self-management and cost control in order to achieve self-financing. This requires nurses to change their perspective on the delivery of services, to embrace a competitive approach that includes quality control and cost savings criteria. This demand highlights deficiencies in basic professional formation, which have been corrected through processes to update the skills and knowledge of nursing professionals.

The transition from a curative care model to one of health promotion and prevention provides opportunities for nursing professionals to demonstrate, on the basis of their proven professional accomplishments, that they are prepared and strong in these areas. And, moreover, that nursing professionals have the skills needed to lead processes and programs, as well as to design exercises based on this approach.

This new organizational model "breaks new ground and provides nursing professionals with new opportunities." Nurses can access positions at different levels, in different areas, groups, and functional units, and move into managerial levels, although senior management positions have been limited in this regard. Pursuant to the reform, positions are not reserved for a specific profession; individuals compete based on their profiles of academic preparation and experience. This situation creates challenges for nursing, but also more opportunities for nurses to demonstrate their abilities and preparation in terms of planning, management, leadership, and advisory services in the different groups, projects, and programs. This fact is reflected in personnel records that show nurses in positions of leadership, coordination, and advisory services.

Nursing professionals in management positions (at the ministerial, district health secretariat, and management of local health services) feel satisfied, motivated, and self-actualized in terms of the quality of their work and effective performance as part of interdisciplinary working groups, and with respect to the results of their activities.

The legislation and standards of the social security system in health have a positive effect on the effectiveness of nursing interventions in the sense that they are measured with the same criteria for productivity, performance, concentration, coverage, and quality. However, one disincentive that does not have an impact on effectiveness, concerns the discriminatory allocation of costs to nursing activities in the pricing manual. According to one interviewee, higher costs are assigned to medical services performed by doctors than the same services performed by nurses. For example, a follow-up visit to monitor child growth and development carried out by a physician costs more than the same consultation carried out by a nurse, which, on many occasions, involves more added value that is not measured.

Socioeconomic conditions and the financial crises facing health institutions have affected nursing in several ways: 1) hospital closings has left nurses and nursing auxiliaries unemployed; 2) hiring systems have shifted to comprehensive wages and short-term contracting, in some parts month-to-month, and in others to a specified term. This creates a lack of job security and dissatisfaction, but does not have an impact on work effectiveness. One interviewee stated that professionals contracted under these conditions wish to demonstrate excellence with respect to their skills and duties, in order to ensure the renewal of their contracts. Others

believe that the high rotation of professionals at some health services affects the continuity of services and programs.

One aspect related to the economic situation that continues to have an impact on nursing services, especially at hospital institutions, governmental social enterprises (GSEs), and at some private facilities, is the limited provision of nursing services. Thus, situations persist where one nursing professional is responsible for the care of between 50 and 100 patients. This situation is exacerbated when nursing auxiliaries lack training or training in a particular service. This is often the result of the proliferation of nursing auxiliary programs without adequate quality control mechanisms.

Likewise, these same conditions are responsible for the lack of materials at some GSEs, which have an impact on the effectiveness of nursing interventions. In fact, there have been some cases where patients have had to provide the materials and medicines for their treatments. Such cases have an impact on the mental sphere of professionals and on the effectiveness of their work.

Legislation and socioeconomic situation have had an impact on professionals in the operational area in the sense of limited positions for nursing specialists, as has been the case for specialized physicians.

Objective 4 - To describe how nursing education programs have responded to the health needs of the population.

Nursing education in Colombia shows progressive development, progress, and strengthening in response to government policies, as well as national and international trends in health care and higher education. Lags may result that some professionals describe as "idealistic," "too theoretical" or "out of touch with reality." However, these lags are attributable to the goal of maintaining nursing education at the forefront, to enlist and promote the necessary changes in accordance with scientific and technological advances and social change.

As was mentioned previously, nursing curricula and study plans are developed in accordance with the country's standards of higher education. Schools of nursing, in accordance with university autonomy, develop curricula in terms of their own philosophy, as well as with their own pedagogical orientations. Each study plan has its own guidelines, but within this principle of flexibility and autonomy nursing curricula respond to health problems of the population, health care policies, health care, and nursing needs in the region where they operate. Moreover, nursing curricula also fulfill the minimum requirements established jointly by the Colombian Institute for the Promotion of Higher Education and the Colombian Association of Schools of Nursing.

Nursing curricula have been transformed in such a way that their objectives and contents are no longer geared toward the study of pathological entities or biological events, but now aim at achieving a holistic vision and treatment of the human being, the individual, the family, the community, and their environment. Curriculum contents are organized with a view to teaching basic skills in nursing and health care in accordance with the human lifecycle, or by age groups.

Curricula develop skills aimed at providing nursing care during hospitalization, but also place greater emphasis on community care and skills development in the areas of health promotion, promoting healthy lifestyles, disease prevention, and the care of health problems prevalent in each age group. Nursing curricula provide a general foundation in social sciences that make it possible for students to understand the social, cultural, political, and legal context associated with health problems and the health care system.

The nursing professionals interviewed, based on their own educational/training experience and what they have observed in other nursing program graduates, agreed that nursing students receive comprehensive training. Moreover, this comprehensive training makes it possible for nursing students to have an integral vision of the country's health situation and of the people that they serve, whether individually or in groups. Support for this position can be referenced in documents detailing nursing curricula guidelines and contents.

Curricula contain a research component that has been progressively strengthened, as well as managerial and nursing care components. Together, these components provide graduates with opportunities to move into leadership positions in different situations, to make contributions in the processes of organization and reform of health services, and to ensure their own continuing professional development. Some professionals interviewed believe that the managerial component of curricula should be intensified and reoriented, both in theoretical and practical terms, in order to effectively respond to the demands of health system reform. Thus, it is considered to constitute one of the greatest areas of need in the education of nursing professionals, in terms of responding to the changes in the current health and social security system. Through the management component, nursing students familiarize themselves with health policies the government includes in its quadrennial development plan. However in some cases, study is limited to the informative plane, without further analysis, as perhaps these topics are more appropriate for graduate-level programs. A similar situation can be observed in teaching on health and nursing legislation; interviewees agree that this area should be strengthened and should involve further analysis.

Curricula contents in the area of health economics are included as electives in some graduate-level programs, as a topic of the health care management field. However, interviewees hold that this area should be strengthened, in addition to

knowledge and skills aimed at determining the costs of nursing and health interventions.

With respect to the response of nursing curricula in terms of priority health care areas, such as risk-free maternity, tuberculosis, cancer, cardiovascular diseases, and mental health, the nursing professionals interviewed agreed on areas that are strongest in all curricula, and that develop fundamental skills for efficient performance of nursing professionals. These include: nursing care for maternal and perinatal/maternal and child/safe motherhood; family planning; cancer prevention; and child care.

With respect to teaching about tuberculosis, HIV/AIDS, cancer, mental health, health care legislation, and other important issues, these are included as theoretical and practical topics or seminars in the different nursing care areas, according to age group. For example, cervical and breast cancer prevention and control measures are included in the area of maternal care, or care of adult women.

Accordingly, Esperanza Ayala, a Colombian nurse, will receive recognition at the next conference of the International Society of Nurses in Cancer Care (Oslo, 2000) for her leadership in strengthening this field of care and graduate teaching. (Source: documents on specialized program in oncology nursing, School of Nursing, Pontificia Universidad Javeriana.)

Although the current Law on Higher Education (Law 30/1993) includes a provision requiring mandatory teaching of ethics, many curricula do not fulfill this requirement or offer it as an elective. However, since 1991 ACOFAEN has coordinated a project for strengthening ethics and bioethics in nursing education and practice. The starting point for this project was a study on the teaching status of these disciplines in nursing curricula. The following aspects were investigated: how were ethics/bioethics included in curricula; who taught these subjects; did nurses participate in ethics/bioethics teaching; what degree of preparation did instructors have in these disciplines; and which bibliographic and material teaching resources in ethics and bioethics were involved. This study provided a basis for designing and applying strategies to strengthen this area in curricula. By the end of the 1990s, significant progress had been made: 1) teaching of ethics and bioethics (with human rights content) is included in all university nursing curricula, where the tendency is to offer these disciplines as a cross-curricular element, imparted through seminars in all areas of nursing with exercises on ethical decision-making with respect to ethical dilemmas encountered in practice—some graduate-level programs also have these disciplines in core curriculum areas; 2) schools of nursing have improved their resources, increasing or updating library resources in ethics and bioethics—some nursing educators have preparation in this area, through programs of continuing or graduate-level education; and 3) research on ethics and bioethics has been initiated; 4) nursing professionals actively participate on ethics committees, in study groups, at centers or institutes of bioethics—some schools of

nursing and universities have projects or hold specific seminars on the matter, for example the “life seminar” at the Pontificia Universidad Javeriana and the University Research Program (PUI) on ethics of the Universidad Nacional.

Evidence in this regard includes the national project, the plan for the year 2000, reports presented to the ACOFAEN National Nursing Ethics Committee (by the schools of nursing), and published bulletins (Annex 4).

Undergraduate and graduate-level nursing curricula define the research skills students should achieve for each type of program. In undergraduate programs, students begin their training as investigators and perfect these skills as professional investigators through master’s and doctoral programs.

This constitutes one of the premises of the Law on Higher Education, which began efforts to establish research requirements in nursing curricula since the middle of the 1960s, placing greater emphasis on this objective after the enactment of Law 80 (1980), which regulated higher or post-secondary education. Law 80 also established research requirements for undergraduate and specialized programs, as well as master’s degrees and the nursing doctorate. Greater advances in nursing research were achieved during the 1990s, both quantitative and qualitative, from the standpoint of the rigor required in the application of scientific methods. In addition, areas that cover research problems are seen as being more linked to the research of problems associated with nursing care than to the study of the processes of disease or treatment. In fact, there are more studies in the fields of community nursing care, health promotion, and prevention. In the search of files at two universities, no studies were found that measure the impact of nursing interventions, define or prove quality criteria with respect to nursing care, measure or quantify the contribution of nursing to health care, or that determine the cost benefit of nursing interventions. And there were only a few studies conducted to determine user satisfaction with nursing care. Included as evidence in this regard is a study conducted at a private hospital institution (high-complexity facility), in which the nursing department systematically evaluates nursing records, the incidence of infections, nursing errors classified by degree of severity by the user, some indicators of personnel behavior, as well as administrative and development activities in the area of human resources. (Annex 5, Durán E., Elsa, Nursing Management at the Fundación Bogotá during 1999, operationalization of strategic orientation. *Actualizaciones en Enfermería*, Vol. 3. No. 1, March 2000, pp. 29-38)

Indications of these research advances are noted in the proceedings of the last National Nursing Congress (Manizales, 1998), in the proceedings of the National Research Colloquium (Annex 6, C.D, Proceedings of the XIV National Nursing Congress), and in a variety of nursing journals (*Enfermería*, *Avances de Enfermería*, *Investigación y Educación en Enfermería*, and *Actualizaciones en Enfermería*). These nursing journals publish information on nursing research in different areas,

carried out mainly by nursing educators and students, as case studies and thesis projects at the graduate level.

With a view to improving the education of nursing professionals, interviewees identified the following needs:

- Strengthen communication skills and the capacity to share with others in order to grow as a group and thus, achieve interventions with a wider social impact;
- Intensify training in the philosophy component, in the epistemology of the profession that helps strengthen professional identity;
- Strengthen analytical skills and implementation of legislation in health and nursing;
- Continue to strengthen research skills;
- Continue to strengthen skills in the humanization and ethical aspects of health and nursing care;
- Strengthen the capacity of interdisciplinary work and help foster professional identity within this area;
- Strengthen the scope of the managerial role with a view to the implementation of new models of nursing services organization, in keeping with reform of the social security system of health, in order to determine costs and indicators of nursing care quality;
- Provide training for nursing care of the family as the subject of care;
- Use research to improvement the quality of nursing care; and
- Provide training in the area of nursing policy formulation for the purpose of analyzing and reviewing health care policies, and to become involved in relevant sociopolitical areas.

The Colombian Association of Schools of Nursing (ACOFAEN), in association with the Colombian Institute for the Promotion of Higher Education (ICFES), guided by their common purpose of monitoring and striving for quality in nursing education, developed the project known as Curriculum Modernization of Undergraduate-level Nursing Program, between September 1996 and March 1997. Three seminars were carried out with the following objectives: 1) to study the current state training programs for nursing professionals; 2) to analyze elements that should intervene in the education of nursing professionals; 3) to prepare curriculum and pedagogical proposals leading to the modernization of training programs; and 4) to update the minimum requirements for the creation and operation of nursing

programs. This project resulted in the publication of a report entitled, "Modernization of Undergraduate-level Nursing Programs," which contains reflections and recommendations on: 1) the program accreditation and the quality of education; 2) human resources education for nursing, including quantitative and qualitative reflections; 3) challenges and prospects for the new millennium; 4) analysis of skills for the training process, disciplinary skills, interdisciplinary skills, research skills and social competence of nursing professionals; 5) professional and occupational profile; 6) projections and actions at union level, and insertion and responsibility in terms of the social context of interventions; and 7) minimum requirements for nursing programs. This document, included as an annex, contains very important forecasting guidelines with respect to reform of nursing education (Annex 7).

Objective 5-- To analyze how nursing research has helped to improve essential functions and achieve health system goals.

With a view to analyzing the topic of nursing research and its contribution to the improvement of achieving health system goals, it is helpful to study the relationship between research and knowledge, and between knowledge and development.

The introduction of the World Bank Report on knowledge in the service of development (1998-1999), proposes that what distinguishes the poor from the rich—whether people or countries—is not only the fact that they have less capital, but also less knowledge. In addition, the report concedes that the production of knowledge is often expensive, meaning that it tends to be produced in the industrialized countries.

The production of knowledge, through research, is related to a country's capacity to invest in research; the percentage of the budget that devoted to technological research and development is a national indicator of progress and development.

But knowledge or people's capacity for knowledge is also analyzed, i.e. the literacy rate, level of schooling, or access to different levels of education. For instance, although the most advanced technology provides knowledge on the treatment of diarrhea, in some communities many children continue to die as a result of problems associated with people's lack of knowledge of how to prevent and treat it in time.

Generally, nursing research has made continual progress as a curriculum subject area, as learning exercise. Progress has been slower in its application as tool to generate nursing knowledge, as process to improve nursing and health care services; in short, in order to solve problems of practice.

Nursing research has been limited due to a lack of financial and human resources (professionals with a research background) assigned to this activity. There has been a slight increase in nursing research over the past 10 years, although there no national data as to the number of nursing research projects securing financial support from different sources. This has been recognized as a general problem, since according to a report of scientist Rodolfo Llinás in 1991, Colombia invests less than the 0.4% of its gross domestic product in research. This figure must be increased to at least 2% in order produce more positive results (*El Espectador*, 9 June 2000, p. 3-E).

The following assessment of an adviser at the Colombian Institute for the Development of Science and Technology (COLCIENCIAS) is helpful in illustrating the problem (Annex 8). During the period 1991-1997 COLCIENCIAS financed 156 health research projects and only one of these had a nurse as the primary investigator. In 1996 and 1997, COLCIENCIAS called meetings of the country's research centers and institutes. Sixteen research groups were recognized, none in the area of nursing. In 1996, Colombian serial and scientific publications were classified. Twenty-five professional journals were selected on the basis of quality, 5 of these were in the field of health. Included was the journal of the School of Nursing at the Universidad de Antioquia, "Nursing Education and Research" (*Investigación y Educación en Enfermería*).

Scientific output of nursing professionals has increased, particularly in terms of the number and quality of undergraduate and graduate-level theses and case studies. However, there are no studies that facilitate analysis of the output of nursing professionals in terms of research, sources of financing, or the number of articles published in national and international journals.

In terms of other available resources for nursing research, allocation of hours during the workday for research is occurring more often, as is approval of sabbaticals for nursing educators, who are increasingly opting for this activity. However in the health services, only in exceptional situations is time allocated to nursing professionals for research. At the health services, nurses carry out research during their free time.

Despite limited resources for nursing research, over the past two decades an increase has been observed in the number of nursing research projects, primarily as part of the requirements for degree programs. As mentioned previously, these research projects involve a variety of primary health care topics, health and healthy lifestyle promotion, and disease prevention. No report was found that quantifies the number of research project in these areas, whether by subject or year, that would provide a basis for showing figures for actual trends, beginning with 1996. (Annex 9 provides examples of titles of nursing research projects in the areas of promotion and prevention.)

In the 1999-2000 Strategic Plan of the National Science and Technology Program prepared by COLCIENCIAS, the description of the situation includes the status and production of the scientific community in health, but is not specified by disciplines. Again, the same aspects identified earlier are also mentioned in this publication. With respect to the list of centers or research units, no nursing center/unit is listed. Projects are classified in biomedical research, clinical research, epidemiology, and health systems, and within these there are fields of research that cover nursing.

The professionals interviewed agree that the following constitute the principal advances in nursing research over the last 10 years: research groups have begun to be formed; lines of research have begun to be developed; the profile of the nursing investigator has emerged and is continually being strengthened through the participation of nursing professionals in interdisciplinary research; and primary care topics have become priorities for research, including health promotion, risk prevention, family health, self-care, and other related areas.

Research, consisting largely of theses, case studies, and projects carried out in fulfillment of degree program requirements, has had an indirect impact on the improvement of essential health system functions. To begin with, research provides feedback on nursing education, and furnishes a theoretical foundation for the profession. Likewise, research has provided proof of and expanded practical knowledge, updated knowledge forming the basis of practice, and developed safety in professional performance. These aspects, which have strengthened nursing education, somehow have not helped to strengthen the essential functions and achievement of health system goals. No research projects in nursing were identified that had a direct impact on the health system in general.

According to interviewees, the most common limitation of nursing research is that recommendations are not put into practice at health services of the local, regional, or national levels: oftentimes they are only applied at the level of the institution where the work was carried out, but the results or impact are not evaluated.

Examples of areas of research that have had an impact on nursing education and, indirectly, on health system functions include:

- Mountains V., Marlene. A Love-based Model for Assistance and Care of Pregnant Adolescents, Cali, Editorial XYZ, 1999.
- Villalobos, María Mercedes. Nursing, Theoretical and Investigative Development, Bogotá, Universidad Nacional de Colombia, Unibiblos, 1998.

- Colombian Association of Schools of Nursing, Institute of Social Security. Twelve Nursing Intervention Guidelines Based on Scientific Proof, Bogotá, Editorial Carrera 7^a, Ltda., 1998:
 1. Nursing Services Management;
 2. Nosocomial Infections;
 3. Care during Pregnancy and Childbirth;
 4. Care of Individuals with Physical Limitations;
 5. Eldercare;
 6. Critical Neonatal Care;
 7. Care of Patients with Multiple and Combined Trauma;
 8. Care of Thorax Tube Patients;
 9. Care of Ostomy Patients;
 10. Care of the Injured;
 11. Care of Patients with Decubitus Ulcers; and
 12. Care of Burn Victims

In order to improve the quality of nursing care, testing has been carried out on the methodology and application of these guidelines in different health institutions throughout the country. These guidelines develop specific contents and include all three main lines of action: ethical aspects related to the subject, epidemiological aspects, and promotion and prevention aspects.

- Salazar Edy. Care of People in Health and Disease Processes from Indigenous and Black Communities, Series of investigative reports, Terrenos de la Gran Expedición Humana, Bogotá, Pontificia Universidad Javeriana, 1994.

This list would be longer if there were more time available to identify all research projects carried out by nurses in the different regions of the country (Annex 9).

Objective 6– To determine the impact of trends in external assistance for nursing over the past 5 years, and what the WHO has done to strengthen nursing in its member countries.

According to the nursing professionals interviewed, during the last 5 years external assistance for nursing from international donations and bilateral agencies has decreased.

External cooperation is believed to have had a significant impact on nursing progress, in terms of financing for development of master's programs and the doctorate in nursing, consulting projects with nursing experts in specific fields of nursing education and services, and development of nursing care projects.

In recent years, it has been possible to secure resources for the development of nursing projects based on new models and strategies for the organization of services, as well as health and nursing care programs that allow for greater community participation, user access, improved quality, and effectiveness. Several such projects were implemented in the country with financing from the W.K. Kellogg Foundation. The Maternal and Child Comprehensive Care for Community Development (AIMIDEC) project in Bogotá; the Research Program for Primary Health Care (PROINAPSA) in Bucaramanga; the UNI projects, in Cali, Medellín, and Cartagena, are all examples of interdisciplinary projects in health sciences. These projects have been designed to promote the integration of education, assistance, and research into community development and local health systems, aimed at improving health conditions. The results of these projects are documented in reports, manuals, ongoing experiences, and programs in the respective localities.

External assistance has facilitated project development that allow for the design and implementation of innovative methodologies in distance learning and semi-presential study in the basic nursing program, graduate-level programs at the Universidad del Valle, and the INNOVAR Project, designed to strengthen and implement innovative methodologies in graduate-level nursing education at the Universidad Nacional de Colombia.

Nursing also has benefited from external assistance channeled through the International Council of Nurses, for the purpose of implementing projects with the National Association of Nurses. Such initiatives include the project to prepare the International Classification of Nursing Practice (CIPE), publication of the Beta version of the International Classification of Diseases (ICD), leadership development nursing seminars and courses to promote change; seminars for the development of nursing leadership through negotiation. These activities can be found in ICD reports and publications.

The National Association of Nurses has received technical and financial support from the Canadian Nurses Association (CAN) and Canadian International Development Agency (CIDA), which has had a big impact on the nursing profession regulation project and professional development activities.

With respect to the role of WHO in strengthening nursing services since 1996, most of the professionals interviewed are unaware of such efforts. They understand that the government carries out official communications and, consequently, professionals do not get this information. With the exception of the National Association of Nurses directives, most professionals have no knowledge of World Health Assembly Resolution 49.1. Some nurses are familiar with WHO publications, and consider them valuable assets.

The nursing professionals interviewed identified more with assistance received from PAHO, from advisory nurses and advisers of other disciplines, through PAHO participation and support in congresses, seminars, working groups, consultancies, and its publications.

The WHO needs to take a more decisive role in order to support strengthening of nursing in the country.

In the first place, WHA Resolution 49.1 needs to be updated to make it more in keeping with the changes that have occurred in the health systems. Moreover, it is recommended that the Resolution be accompanied by a document that provides more concrete directives so that governments can define policies, goals, and strategies with the participation of nursing professionals. This would strengthen the nursing component of the health system and more effectively utilize its potential in terms of the health and quality of life of the population. Other suggestions include:

- Strengthen nursing, maintaining more nursing positions at regional offices of the WHO that, in turn, support nursing in the countries;
- Support for nursing research to train investigators and research groups, to promote joint research efforts at the national and international levels. Financial support will be important for the education of doctors in nursing;
- Establish information networks so that nurses in different countries can exchange experiences;
- Strengthen communications and the information system, so WHO information and international nursing information is channeled through the associations to nurses at health services and in education;
- Support key programs, such as leadership development for nurses, and development of strategies to achieve true participation and influence on health and education policies;
- Appoint a nursing advocate, and develop mechanisms for nurses at the operating level of the country with WHO, both in PAHO and in the country.

Some nursing professionals are interested in learning the results of the case studies, the assessment of WHA Resolution 49.1, and the challenges that national nursing organizations should assume, in order to reach the strengthening targets for nursing in Colombia.

Challenges for Nursing in Colombia

With respect to this case study, some challenges and urgent actions are identified for nursing in the coming years:

- To establish information systems that measure and assess the real participation of nursing in different spheres of performance in the General Social Security System for Health Care, delivery of services, organization of services, education and development of human resources, and scientific output.
- To continue to promote nursing publications in national and international journals and maintain information systems in this regard that show the progress achieved, making it possible to evaluate scientific output in the field of nursing.
- To conduct research that makes it possible to evaluate the impact of the nursing interventions on health, on well-being, on people's and the community's satisfaction, and on the achievement of social security system goals.
- To formulate a strategic plan for nursing that considers the strategic plans of different nursing organizations and also integral nursing development in the country. The plan should encompass priority aspects that, in a coordinated manner, can be addressed in order to respond to the health care problems of the population, thus ensuring harmonious development and nursing progress.
- To utilize mechanisms provided under Law 266 (1996), primarily the National Technical Board of Nursing, in order to ensure nursing participation in the definition of health policies and its government advisory role in all aspects related to the profession, as conferred by law.
- To strengthen nursing research, the education of nursing investigators, and the formation of research groups, centers, and institutes, made up of investigators in education and from the health services.
- To promote the work and evaluation of research between national and international partners, and between research groups who contribute to scientific and technological progress in nursing.
- To design quality indicators and methodologies to determine the costs of nursing care in hospitals, in community services, and in private practice.

- To design systems of nursing services organization in keeping with the guidelines of the reform of the general system of social security, in order to ensure the positioning of nursing professionals that will allow them to make full use of their nursing skills on behalf of the community.
- To promote nursing cost analysis and productivity studies in the General Social Security System on Health Care, and to recognize the added value nursing contributes to health care.
- To continue studies on the classification of nursing practice, the International Classification of Nursing Practice (CIPE), and to achieve its integration in national classifications, including CUPS (uniform classification of health procedures), pricing manuals, and others.

ANNEXES

- ANNEX 1.** Nursing Professionals at the Ministry of Health.
- ANNEX 2.** Examples of Nursing Professionals in Management Positions at the Health Services
- ANNEX 3.** Local Health Plan – Chapinero (printed matter)
- ANNEX 4.** Program for Strengthening Ethics in Nursing Education and Practice, ACOFAEN (printed matter).
- ANNEX 5.** Nursing Management at the Fundación Bogotá, 1999 Elsa Durán (printed matter)
- ANNEX 6.** National Congress of Nursing, Manizales, 1998 (CD-ROM)
- ANNEX 7.** Modernization and Modernity of Nursing Programs, ACOFAEN (printed matter)
- ANNEX 8.** Situation of Nursing in Colombia, Beatriz de Sarmiento, (printed matter)
- ANNEX 9.** Examples of Nursing Research in Promotion and Prevention
- ANNEX 10.** Primary Health Care Experience, AMIDEC Project, Bogotá, (printed matter).

Note: Only annexes#1, 2 and 9 are available electronically.

ANNEX 1

MINISTRY OF HEALTH Nursing Professionals

NAME	OFFICE
Fanny Morrillo	Public Health
Elsa Villafradez	Public Health
Rosa Margarita Durán	Public Health
Socorro Muñoz	Public Health
Dalila Mendoza	Public Health
Sonia Rodríguez	Public Health
Ernestina Peñaranda	Public Health
Flores Tellez	Services Development
Carolina Prada	Services Development
Xiomara Rojas	Insurance
María Cecilia González	Insurance
Esmeralda Gutiérrez	National Liaison
Enriqueta Cueto	Services Improvement Program
María Eugenia Beltrán	Services Improvement Program
Mariela Barrera	Information Systems
Inés Gómez de Vargas	National Health Authority
Leonor Valencia	National Health Authority
Heydy Amaya	Reform Support Program

ANNEX 2

EXAMPLES OF NURSING PROFESSIONALS IN LEADERSHIP POSITIONS IN THE HEALTH SERVICES

1. Cali Health Secretariat

NAME	POSITION
Protection Vesga	Departmental Health Secretariat Adviser
Nancy Landazabal	Immunization Program Coordinator
Eugenia de González	Maternal and Child Program Coordinator
Amparo Cerón	Director, Cañaveralejo Hospital
Noralba Navarrete	Director, Primary Care Nucleus 8
Martha Eugenia Uribe	Director, Primary Care Nucleus 9
Helen Leonor Quiñonez	Director, Primary Care Nucleus 11
Nidia Amparo Zambrano	Director, Primary Care Nucleus 12
Martha Cecilia Valbuena	Director, Iglesias Primitive Hospital
Nurses	18 Directors of Primary Care Nuclei
Nurses	2 Directors Level I Hospitals
Nurses	Private EPS Directors 2

2. Capital District Health Secretariat

NAME	POSITION
Patricia Barrera	Juan XXIII Hospital Coordinator
Mercedes Zamora	Olaya Hospital Coordinator
Martha López	Trinidad Galán Hospital Coordinator
Carmen M. Sánchez	San Jorge Hospital Coordinator

Eliana Hurtado	Nazareth Hospital Coordinator
Claudia Niño	
María Z. Barbosa	Bella Vista Hospital Coordinators
Sandra Rodríguez	Chapiñero Hospital Coordinator
Claudia L. Sánchez	Perseverancia Hospital Coordinator
Miryam Guerrero	San Cristóbal Hospital Coordinator
Liliana Ramírez	Tunjuelito Hospital Coordinator
Claudia Helena Prieto	Manager, Pablo VI Hospital, Bosa
Martha Patricia Bejarano	Kennedy Hospital Coordinator
Nurse	Public Health Directorate
Nurses	4 executive positions, Area Chief
Nurses	4 Processes Managers
Nurses	75 PAB Coordinators

ANNEX 9

EXAMPLES OF NURSING RESEARCH ON PROMOTION AND PREVENTION

Pérez A., Angelic María. **Managerial Elements in Nursing Organization at Level II and III Health Institutions in Bogotá.** Master's Thesis in Nursing, 7 April 2000.

The study identifies managerial concepts in the practice of nursing in Bogotá health institutions. The study focuses on current legal provisions and their relationship to the general system of comprehensive social security.

Analysis and findings:

In some institutions nursing departments and services continue to be organized by specialized function. Also considered is the emergence of functional units, derived from the new organization of the general system of comprehensive social security. Accordingly, it is important for nurses to understand this new form of organization.

Conclusions:

There is no comprehensive or systematic application of a specific managerial approach.

The institutions studied possess the characteristics foreseen in Law 100, which organizes the general system of comprehensive social security.

No managerial approach has been fully implemented.

A clear and applied service culture is not identified in nursing organization.

López Rojas, Lilia Edith. **The Role of Nurses in the Basic Care Plan (PAB) in the Bogotá Metropolitan Area.** Master's Thesis in Nursing, 7 April 2000.

Summary

This is a cross-sectional descriptive study conducted in 19 Bogotá neighborhoods. In the study, 67 nursing professionals were surveyed to identify their managerial, assistance, teaching, investigative, and advisory roles. The study involved observation of the performance of professional nurses, and concluded that their most common roles in terms of the PAB were in the areas of administrative and care management.

In the Capital District of Bogotá, the PAB is comprised of ten projects; five involve the life cycle, and include the stages of human growth and development, and the remaining five in any stage of the life cycle (cross-sectional).

PAB contracts are with level I Government Social Enterprises (GSEs), which correspond to the former level I hospitals. Interdisciplinary teams are responsible for developing projects.

Based on Law 100/93, the opportunities that are generated for professional performance are related to care proposed in the benefits plan. The purpose of the study was to describe the true roles performed by nursing professional in PAB health care. It is important to consider that Law 100 has been in effect for seven years and different processes continue to be regulated.

Cross-sectional projects offered as part of the PAB are:

The disabled;

Communicable diseases, vector-borne diseases – Hansen – patients with respiratory symptoms;

Public health surveillance (PHS), demographic surveillance;

Informal workers;

Environment and quality of life.

PAB Nursing roles in 20 Bogotá neighborhoods were studied by means of questionnaires sent to 77 nursing professionals, of which 67 responded.

Conclusions

Nursing professionals are unaware of the law governing professional practice, principles, and values.

Nursing professionals participate in the different PAB stages, but have a lesser degree of participation in its evaluation.

Nursing professionals participate in interdisciplinary work, but have little knowledge of the role of the PAB Intersectoral Committee.

Nursing professionals participate in intersectoral processes.

Leadership exercised by nursing professionals is participatory in nature.

Nursing professionals provide care to individuals, the family, and the community.

Nursing professionals exercise a teaching role in the supervision of student practice.

A low percentage of nursing professionals were found in research and advisory roles. They identify problems for research, but do not conduct research. The advisory role of nursing professionals is limited by their lack of experience in information management.

Recommendations

Strengthen education in the legal and regulatory aspects of health and of the profession.

Promote interdisciplinary work.

Base professional practice on principles and values.

Strengthen research skills.

Duque, María Claudia, and Salazar, Edy. **Caring for People in Health and Disease Processes in Indigenous and Black Communities: "Lands of the Great Human Expedition."** Series of Investigative Reports, No. 2, Julio Bernal V., (Editor)

Summary

Nursing is proposed as a discipline that is initially defined by the parties interacting in the care relationship. Care is defined as activities carried out by some for others in the health-disease process.

During the "Great Human Expedition," the characteristics of care were identified in terms of the health-disease process for people in 16 isolated indigenous and 4 black communities in Colombia. This study describes the care of women during pregnancy, childbirth, and the puerperium; characteristics of the practice of breast-feeding; names of the diseases and actions carried out by the different caretakers designed to cure illness and recover health. These communities are geographically isolated from the national health system and, for the most part, only have traditional caretakers ("jaibanás," midwives, and shamans). These caretakers are sought out first. However, in cases where the causes of disease are believed to be other than those conceived by their tradition, patients are referred to medical professionals. Data for this project was collected through interviews of key informants and groups of mothers and fathers. Interview topics were related to the health problems identified in the communities visited.

Díaz Viatela, Clara Delcy et al. **Community Intervention Model in the Design of Health Plans.** Case Study, Villavicencio, 1995.

Summary

This study was conducted in the community of Port Lleras. It study was conducted from April 1994 and it ended in November 1995. Development of the study centered on description, following a historical approach and hermeneutics-based interpretation. The study focused on how to bring the community and nursing personnel together through the preparation of a municipal development plan in health, which has been approved and is currently operating. The results of this project firmly establish this model of health plan preparation, which is described in detail and supported in terms of the political and legal frameworks of the sector.

With respect to conclusions, It was determined that reform of the system has provided many opportunities for nursing professionals and that more have yet to be discovered. Moreover, regional administrative policy needs to be pursued more actively in the system, in order to obtain useful results and solutions to collective problems. It is recommended to enlist the support of health professionals to complement efforts at the community level, aimed at improving lifestyles and promoting the organization of groups.

Angel Barajas, Isabel, Gómez, Claudia Lucía, Rozo de A., Clara. **Primary Health Care Strategy for the Elderly with Community Participation.** Thesis Project, 1991, Bogotá.

Summary

The purpose of this study was to prepare an educational strategy in primary health care for the elderly at the Madre Marcelina Nursing Home. The first chapter of the work plan includes presentation of the problem; characteristics of the nursing home; and the identification and adaptation of health needs of the elderly. Based on this description, the problems are analyzed with a view to assigning priorities that justify development of an educational health strategy. The second chapter focuses on conceptualization of the problem. It contains a historical profile of the elderly, including information on the participation of the elderly in family life, the economic situation of the elderly and social factors that affect it, Colombian legislation on old age and advanced old age, and the socioeconomic effects of the aging process in a developing country. Some definitions of terms are also included. The third chapter focuses on methodological design, and presents the proposed topics, objectives, methodological strategies, resources, and an evaluation of the activities carried out. The fourth chapter lists the achievements made with respect to the proposal. The fifth and sixth chapters include the timetable for work and contributions obtained from the community work experience using the participatory action research methodology.

Vanegas de A., Blanca Cecilia (Adviser), Delgado, Diana., Echeverri, Sandra (students), et al. **Proposal for an “Educational Program” to Promote Self-esteem and a Plan for Living, with Support in the Prevention of Adolescent Pregnancy.** Research Project, 1998.

Summary

The proposal was designed to provide an alternative solution to the real needs of adolescents, with the aim of contributing elements to improve self-esteem and promote their plan for living, as these aspects can most contribute to responsible decision-making in terms of adolescent sexuality. Furthermore, recognizing the importance of the role parents and teachers play in the development of self-esteem and a plan for their lives from childhood. With respect to the design of this proposal, some specific activities were added for parents, mothers, and teachers. Once the proposal was designed, a pilot study was carried out at the Colegio Integral Avancemos, with 30 sixth graders, and subsequently with their parents and teachers. Based on this pilot study, adjustments were made to improve and introduce this intervention proposal for use as an educational strategy within adolescent pregnancy prevention measures.

Angel, B. Isabel. **The Elderly and Nursing Care.** Manual, Tunja, 1996.

Summary

The purpose of this manual is to contribute to the educational process of nursing students with a view to providing quality nursing care to the elderly. The manual includes the following units: Unit 1 – general aspects of aging; Unit 2 – psychosocial, and economic aspects of aging; Unit 3 – risk factors of the elderly; Unit 4 – health promotion, disease and disability prevention, Unit 5 – assessment of the elderly; and Unit 7 – Colombian legislation and care programs for the elderly.

Villarraga de R, Lilliana. **Incorporating a Component for Primary Prevention in Mental Health in the Care of Pregnant Women and their Families.** Research Project, 1995.

Diaz, B., Nieves, María, Marine, Mireya G., Leal, Rosalba C. Inés **Assessment of the Tuberculosis Prevention and Control Program in the Yopal Regional Hospital during 1993.**

Summary

A productive study was conducted on the assessment of the Tuberculosis Prevention and Control Program of the Yopal Regional Hospital, Casanare. Surveys were administered to patients, their families, and staff members in charge of the

program. The following recommendations were made to improve the problem areas detected:

Implement training activities for program development, primarily targeting nurses, in coordination with Casanare sectional health services, as well as other departmental and municipal institutions.

Coordinate the organization of activities with the health team designed to strengthen promotion in different program activities.

Implement a home visitation plan, taking into account the clinical situation of the patient, the number of possible contacts needed to diagnose the patient, and provide timely treatment.

Establish a control system that makes it possible to verify that house calls and educational activities are carried out.

Plan and conduct education through the tuberculosis prevention and control program and, with the directors of different institutions, coordinate a plan for promotional activities aimed at the susceptible population.

Martínez. B., Luz Dayssi, Mejía L. Miryam, Riveros B., Andrey Y. (students) **Identification of the Most Common Risk Factors for Cervical Cancer in the Population of Funza.** Research Project, Funza, 1996.

Summary

Research was carried out in the period 1995-96 on 150 women that went to a massive taking of cytology and to whom was applied them a format, individually, in order to assess the risk factors for cervical cancer.

The results showed that sexual behavior constituted one of the most predisposing risks for cervical cancer, such as having the first sexual encounter at an early age, early age at the time of the first delivery, number of sexual partners, as well as the frequency and type of sexual relations; habits of hygiene for both women and their partners, and the presence untreated leukorrheas. Also detected were high levels of stress, nutritional deficiencies with respect to foods that assist in body's regulatory processes and help to promote health, as well as poor housing conditions. A prevention program geared toward women was proposed to foster awareness of the problems that cause cervical cancer and how to modify external factors.

Lancheros, R. Norma C., and Reyes P. María Cristina (students), and Reyes J. Nohora Ofelia (adviser). **Determination of Some Risk Factors and Their Possible Relationship to the Health Status of People Working in Recycling Activities at Refuse Dumps of the city of Giradot.** Reseach Project, 1992.

Summary

The purpose of this study was to determine the relationship between some identified risk factors associated with the main refuse dumps of Girardot and changes in health status of people that make their living recycling refuse in these places. For the study, risk factors were defined as operational variables, including functional patterns, general protection, age, sex, weight, height, and refuse. The study was descriptive in nature, and drew on a sample consisting of the city's three biggest refuse dumps and 28 people working in the recycling trade. Survey tools included direct observation, an observation guide, as well as a survey and health assessment of the subjects.

Conclusions

The study concluded that: the most vulnerable population are males between the ages of 11 and 40; the most changed functional pattern was health perception and management; recycling workers are unaware of health, self-care, and prevention measures they should use to protect their health; recycling workers are a marginalized group within the community; recycling workers have no social support mechanisms to improve their living conditions; and the task of recycling workers is not recognized as a productive work for the city.

Eslava, Daniel. Community Opinion of Nursing in the Subsidized Regime in a Rural Coffee-growing Area of Cundinamarca. 1998.

Eslava Daniel. Health Situation of the Elderly in the Municipality of Bojacá. 1995.

Ayala, Esperanza. Effectiveness of a Sex Education Program for Schoolteachers. 1993.

Ayala, Esperanza. Effect of Nursing Intervention in Self-care of Mastectomy Patients. 1994.

Salazar, Edy. Self-care Practices during Pregnancy in a Group of Pregnant Adolescents at the Juan Bosco Health Center, Usme. 1999.

Caballero, Rosita de. The State of the Art in Health Promotion and Disease Prevention Governmental Policies Since 1977. 1999.

Caballero, Rosita de. Humanization of Comprehensive Nursing Care in the ICU of the Simón Bolívar Hospital. 1993.

Caballero, Rosita de. Trends of Nursing Research in the Area of Adult Cardio-respiratory Care at Education and Care Institutions of Bogotá. 1995.

Duque, Claudia. Quality of Child Care at the Fundación Santa Fe. 1995.

Duque, Claudia. User Opinions on Health Care in Nursing Consultations. Hospital de la Granja (outpatient hospital), 1995.

Cortés, Rosaura. Quality Assurance Systems used by Colombian Hospital Institutions. 1996.

Cortés, Rosaura. The Effect of Nursing Educational Interventions on the Prevention of Bedsores in Hospitalized Adult Cancer Patients. 1998.

Romano, Gloria Inés. High-risk User Opinions on Procedure Information Provided by Physicians and Nurses. 1997.

Araque, S. Sonia, Sandoval, Martha Isabel. Social Security in Health for Affiliates of the 4th Municipal District of San Cristóbal. Research Project, Universidad Nacional de Colombia, Bogotá, 1999.

Rincón, Viviana, and Sánchez, Carolina. Quality and Costs in Nursing. Research Project, Universidad Nacional de Colombia, Bogotá, 1999.

Bernal, Luz Dary, and Ruiz, Esperanza. Areas Lacking Self-care and Home Social Support Networks for High-risk Pregnant Women at Risk for Pre Term Delivery Cared for at the Maternal-fetal Medical Unit, Simón Bolívar Hospital. Research Project, Universidad Nacional de Colombia, 2000.

Tobo, Nohora Isabel. Self-care Health Practices of a Group of Adult Women. Master's Thesis in Nursing, Universidad Nacional de Colombia, 2000.

Prada, Carolina. Citizen Participation and Consumption of Health Services. Master's Thesis in Political Science, Universidad de los Andes, 1998.

Caro, Clara Virginia. Collective Construction of Health Promotion with Community Participation. Doctoral Dissertation in Nursing (in progress), Universidad Federal de Santa Catarina, Florianópolis, 2000.

Note: Printed summaries are provided for numbers [27-30](#).

BIBLIOGRAPHY

1. Asociación Colombiana de Facultades de Enfermería, ACOFAEN e Instituto Colombiano para el Fomento de la Educación Superior, ICFES, Modernización y Modernidad de los Programas en Enfermería, Santafé de Bogotá, 1977.
2. ACOFAEN, Informe de Actividades, marzo, 1997- Abril, 1998, XXXV Asamblea General, marzo de 1998.
3. ACOFAEN, Informe de Actividades, abril 1998-abril 1999, XXXXI Consejo de Directoras. abril de 1999.
4. ACOFAEN, Avances y resultados en el Plan Estratégico, Informe de la presidenta y la directora Ejecutiva, Santafé de Bogotá, 2000.
5. Banco Mundial, El Conocimiento al Servicio del Desarrollo, Informe sobre el desarrollo mundial, 1998-1999, Madrid, ediciones Mundi-prensa, 1999.
6. Castrillón A. María Consuelo y otros, Enfermería en Colombia y la Reforma del Sector Salud, Investigación y Educación en Enfermería, Vol XVII, No. 1, marzo de 1999, pág. 13-33.
7. COLCIENCIAS, Ciencia y Tecnología de la Salud, plan estratégico 1999-2000, programa de ciencia y tecnología, Santafé de Bogotá. Instituto Colombiano para el Desarrollo de la Ciencia y la Tecnología " Francisco José de Caldas," 1999.
8. Congreso de la República de Colombia, Ley 100. del 23 de Diciembre de 1993, por la cual se crea el Sistema de Seguridad Social Integral y se adoptan otras disposiciones.
9. Constitución Política de Colombia, 1991, ISMAC, edición especial.
10. Congreso de la República de Colombia, Ley 115 del 8 de febrero de 1994, por la cual se expide la Ley General de Educación.
11. Congreso de la República de Colombia, Ley 30 del 28 de diciembre de 1992, por la cual se organiza el Servicio Público de la Educación Superior.
12. Departamento Administrativo Nacional de Estadística, DANE, Colombia: Proyecciones Anuales de Población por Sexo y Edad, 1985-2015.
13. Departamento Nacional de Planeación, Misión Social, Programa de las Naciones Unidas para el Desarrollo, PNUD, INFORME DE Desarrollo Humano para Colombia, 1998, Santafé de Bogotá, TM Editores, 1999.

14. Garavito, Análida, Experiencia de la Facultad de enfermería de la Pontificia Universidad Javeriana en el Programa de desarrollo y paz en el Magdalena Medio, Investigación en Enfermería, julio-diciembre, 1999, pág. 55-57
15. Liga Nacional de Enfermeras (National League for Nurses), Perspectivas educacionales convergentes, una antología de la Reunión Panamericana de Estudios de Postgrado en Enfermería, Bogotá, Colombia, octubre de 1995 (compilada por Nancy Jeffries), 1996.
16. López, Emilio y Montoya, J. Magdalena, (Editores), Estudio de casos, fundamentos y metodología, Madrid, España, UNED, 1995.
17. Ministerio de Salud, Resolución Número 00685, del 30 de marzo, del 2000, por la cual se crean y organizan Grupos Internos de Trabajo en el Ministerio de Salud, se determinan sus funciones y se realizan algunas delegaciones.
18. Ministerio de Salud, Resolución Número 00730, del 4 de abril del 2000, por medio de la cual se designan los coordinadores de los Grupos Internos de Trabajo para el Ministerio de Salud.
19. Ministerio de Salud, Decreto número 2174 del 28 de noviembre de 1996, por el cual se organiza el Sistema Obligatorio de Garantía de Calidad del Sistema General de Seguridad Social en Salud.
20. Ministerio de Salud, Organización Panamericana de la Salud, Pontificia Universidad Javeriana, Perfiles de salud en poblaciones indígenas colombianas, 1992-1993, Santafé de Bogotá, Javegraf, 2000.
21. Ministerio de Salud, Organización Panamericana de la Salud, Situación de Salud en Colombia, indicadores básicos 2000, Santafé de Bogotá, Trazo Diogital, 2000.
22. Ministerio de Salud, Superintendencia Nacional de Salud, El Talento Humano de la Salud en Colombia, segunda edición actualizada, 1997.
23. Salazar, Ligia de. Evaluación de Tecnología en Salud Pública, Vínculo Crítico entre Ciencia y Política, Universidad del Valle, Facultad de Salud, Centro para el Desarrollo y Evaluación de Tecnología en Salud, CEDETES, 2000.
24. Universidad Nacional de Colombia, Fundación W.K. Kellogg, Atención Integral Materno-infantil para el Desarrollo Comunitario, AIMIDEC, Una Experiencia de Atención Primaria de Salud en Santafé de Bogotá. Informe elaborado por Esperanza de Monterrosa, enero, 1996.

25. Uribe A. Clemencia, "La Agonía, un espacio en la vida, "El Camino Recorrido, 1979-1999, de la Fundación pro Derecho a Morir Dignamente, (D,M,D.) Santafé de Bogotá, Giro Editores, 1999.
26. Pineda, Virginia Gutiérrez de., Familia y cultura en Colombia, Universidad Nacional de Colombia, coediciones con TM Editores, Bogotá, 1968
27. Suárez de S. Beatriz, La Investigación en Enfermería, un reto para la profesión, Editorial , Actualizaciones en Enfermería, vol.2, No.2, junio 1999, pág. 6-7.
28. República de Colombia, Ley 30 de 1992, por la cual se organiza el servicio público de educación superior.
29. República de Colombia. Ley 115 de 1994, por la cual se expide la Ley General de Educación Superior.
30. República de Colombia, Ley 100 de 1993, por la cual se crea el Sistema de Seguridad Social Integral y se adoptan otras disposiciones.
31. Secretaría de Salud de Bogotá, Diagnóstico local con Participación Social, localidad Chapinero, 1998 (La misma metodología se aplica a las 20 localidades del Distrito Especial de Bogotá).