

# HEALTH AND EQUITY: A Look at Health Financing in the Dominican Republic<sup>1</sup>

By Magdalena Rathe

## INTRODUCTION

Latin America and the Caribbean – an enormous and heterogeneous global region which occupies almost a whole hemisphere, rich in its cultures, peoples and natural resources – is facing today a common challenge: economic and social development. Thus, in the Caribbean Sea, the Dominican Republic, that shares with Haiti the second largest of the Antilles, has to meet the same challenge and the same expectations.

A few words for the benefit of those readers, who are not familiar with the Dominican Republic, some relevant demographic and economic data: this country has a surface of a little more than 48,000 square kilometers and a population of eight million inhabitants. It became the cradle of American civilization upon its discovery, at the end of the 15<sup>th</sup> century. Its economy has been characterized by one of the fastest growth rates in the region -- and in the world -- throughout the nineties. This growth has been largely driven by tourism, manufacturing industry, building construction and an impressive development of communications. Nevertheless, per capita income is still rather low, as it does not reach US\$2,000, with considerable disparities in its distribution. The population is still relatively young, a mixture of races of diverse cultural heritage, submitted to strong migratory influences, as more than 10% of Dominicans reside abroad, especially in the United States. Like its sister countries, the Dominican Republic, too, is in search of a formula that will bring about economic development.

However, it is not easy to define the meaning of this economic development, and much less, to design the strategies that would ensure its achievement. Many have tried several different ways, emphasizing the most diverse aspects, according to the trend of the moment, an ideological position or particular interests. Thus, a strategy can become "fashionable" at a certain time - maybe, because it was successful somewhere else - and then, a kind of intelligence network begins to form around the world, feeding on the energy produced by all this interconnecting enthusiasm. At present, on the eve of the 21<sup>st</sup> century, it is the revolution in communications that drives these processes of transfer of knowledge at a vertiginous speed. With the same speed, theories are defended, books are written, development plans are drawn and policies are formulated, executed and administered, with variable results.

The truth is that there is no universal successful recipe and that models that succeed at one time and at one place cannot always be repeated. Development is a complex process that depends on multiple factors in very different fields, not only economic, but also social and cultural. We are dealing here with something as complex as the human mind; in the end, we

---

<sup>1</sup> This paper is a summary of the book of the same name that is currently in print, and was presented at the International Symposium of National Health Accounts, held in Rotterdam, Netherlands, on June 1999. The research was conducted by its author for Macro International, with financing by USAID and based on information from a household health expenses module, that was included for the first time in the Demographics and Health Survey (ENDESA) and which received technical and financial support from the IDB and the World Bank, in order to serve as baseline for the monitoring of health reform. Another important source were the National Health Accounts, also compiled for the first time in 1996, with the support of the above mentioned international agencies and the Pan-American Health Organization (PAHO). The author took part in both research studies.

must bear in mind that societies are formed by human beings, with their own desires and needs, triumphs and defeats, dreams, expectations and hopes.

In the magazine *The Economist*, the author of an article on the economic and social success of the countries of Southeast Asia reflects on our lack of understanding of economic development. This process is as little understood - he writes - as the human mind, to which it is closely linked. And he continues by drawing our attention to four fundamental elements that make economic growth possible: labor, physical capital, human capital, as well as something more difficult to define - efficiency -, which allows to combine the other three. The author does not include nature, which provides the physical resources we use, consume, process, transform and, unfortunately, also plunder through our economic activity, maybe because as human beings, we are part of nature itself. These four elements, duly separated for the purposes of analysis, are the result of effort, intelligence, and industriousness, in short, of the quality of human labor. This is why economic and social development is so intimately and essentially linked to the human mind. And, this is also why the process is always both complex and creative.

It is often said that economic development is the result of sustained growth of the Gross Domestic Product (GDP) during a relatively long period of time, which is then translated into an improvement in the distribution of income. But, what is it that makes this product grow? One could say, for example, that the growth of exports is responsible for it. But then, the fundamental questions become: Who makes the product grow and who makes exports grow? Obviously, the answer is "people". And, the creativity of the people, their ability to use or to invent technology, in short, their productivity, depend on many factors whose essential -- and often forgotten -- starting point is good health. Likewise, they are related to the satisfaction of other basic needs of life as well as the possibility of fulfillment of certain needs of a higher order.

Consequently, we need to formulate a vision of development that focuses on the human being, both as objective and as prerequisite, because the indispensable condition to start a process of development is the formation of human capital. Hence, we need to define a modern Utopia: an integral vision of development whose driving force is human development. To say it with the words of the United Nations Development Program (UNDP), we are in search of a strategy based on economic growth, environmental sustainability, social equity and democracy.

It is my personal opinion that for society to reach better material and spiritual living conditions, superior values are needed, as well as strong ideas to drive our actions, and a new type of sensitivity and conscience. For years, economism has prevailed as an approach to development. Emphasis was placed on product growth, which was to be achieved through policies aimed at directing investment in one direction or other. The "trickling-down" theory of development held that, by increasing employment opportunities, growth would improve the material well being of the people and that, consequently, no deliberate efforts towards redistribution or human development were necessary. The experience of numerous countries has cast doubts on the truth of this assertion.

In most Latin American and Caribbean countries, given the conspicuous reality of poverty and unfair distribution of income, resources and opportunities, the governments apply, parallel to their economic policy, also a social policy, with varying degrees of depth and commitment. The result has been a divorce between both types of policies, a lack of connection and coherence. Priority has almost always been given to economic policy, leaving social policy as a kind of "Cinderella", without the necessary resources and inadequately valued by those in power. As a consequence of this, there have been relegated to a secondary position the efforts to improve the indicators of human development, which are decisive for the increase of productivity in the economy. The poor quality of human resources has, thus, become a burden that hinders

economic growth. A new definition of development has to be found that focuses on the social aspects in a holistic way.

And this has become even more important in view of today's international situation and the unavoidable reality of globalization. Our countries have to produce internationally competitive goods and services if they want to take the road towards economic growth. In order to compete successfully in the world markets, modern industry needs to employ more and more qualified personnel, able to absorb new technologies. However, Latin America and the Caribbean are facing difficulties to be part of a world, the key to which is knowledge. Indeed, technology is indispensable for achieving international competitiveness, and this is absolutely necessary to achieve growth to eradicate poverty. Now, it is poverty itself that, in turn, limits and conditions the possibilities of access to technology.

Some of the economically successful countries in modern times, such as those of Southeast Asia, gave simultaneous importance to the preparation of their human resources and to the generalization of healthy living habits, together with the promotion of exports. Indeed, during the first stages of the process, their strategy consisted in granting the highest priority to education and basic health, relegating university education to a secondary plane. Latin America, on the contrary, chose the opposite option, and the results are well known.

Another fundamental element of that successful strategy was the special effort made to extend education equally both to boys and girls, which has led to lower fertility rates among educated women, better childcare, a higher consumption of preventive health services, and hence, more well-being and better living conditions for the family. But, the most important - and, possibly, least known - fact is that the high educational levels of Asian women have caused a qualitative leap in the intelligence of all children of the next generation. Likewise, it has been demonstrated that achievements, however modest, in health and nutrition improve the present and future well-being of the population which, in turn, increases the capacity to generate future abilities and, consequently, the sustainability of development.<sup>2</sup>

This explains the high standards of Japanese students, for example, who finish secondary school studies with sufficient training to study science at any of the best universities in the world. According to Thurow, this contrasts with the results of most high school students in the United States who, upon completion, "have closed the doors" to a scientific field of studies.<sup>3</sup> If this occurs in one of the most advanced countries in the world, what will be the hope for the poor countries? The importance of this fact is that scientific advancement is the basis of technological development and this, in turn, is the foundation of the growth of productivity, that "undefinable something" that we mentioned earlier and which enables an efficient and effective combination of the productive agents which allow economic growth. Once again, this is another instance of the indissoluble relationship between human mind and economic development.

From the above reflections, it may be concluded that development is a complex process with numerous interrelated factors which, therefore, cannot be viewed from a single direction, but have to be approached holistically, i.e. from an integral point of view, focused on human beings, and where social and economic objectives share the same priority. Consequently, economic and social policies that take into account criteria of efficiency and equity, are needed in order to achieve the true objective of development: a more equitable society, where human beings have

---

<sup>2</sup> Berman P., **Health Sector Reform: Making Health Development Sustainable**, Harvard University Press, Massachusetts, 1995.

<sup>3</sup> Thurow, Lester, **Head to Head**, William Morton & Company, Inc., New York, 1992.

the opportunity to reach all their potential as men and women capable of electing, deciding, contributing and, above all, living in peace.

In the case of the poor countries, one of the fundamental tasks is to reduce poverty. In order to achieve this, a long period of economic growth is required, which would create the opportunity to increase employment and to ensure a better distribution of income. In this process, the role of the State should, fundamentally, be one of regulator and promoter of private activities. However, if a more just society is to be achieved, the government will have to intervene in certain areas of the economy where the market does not constitute a good mechanism to allocate resources. The health sector is the clearest example of an area in which the laws of the market do not work effectively.

In this regard, the State has the fundamental task of correcting imperfections, through social public expenditure. Studies conducted in Latin America have shown that public subsidies for education, in the long term, and for health and social security, in the short term, have the largest redistributive effect, which means that they are the most capable of improving the families' available income and, thus, improve their standard of living. Nonetheless, in order to generate a virtuous circle of cause and effect, it is not enough to say that the Government has to raise social expenditures. Clear resource allocation policies are required in those areas that really need them and for those people who cannot adequately satisfy their own needs by their own means; moreover, this allocation process has to be efficient and productive.

The health sector is a case in point. The efforts of the government in this sector, basically, respond to three objectives: to improve the health of the population, to improve social equity and reduce poverty and, finally, to improve individual well-being.<sup>4</sup> There is not practically a single country that may consider that it has achieved these goals which, by the way, change over time in tune with changes in society. Indeed, there always exist incentives to improve the health system. This is why the idea of a sectoral reform, understood as a body of policies aimed at achieving the above-mentioned objectives, is widely accepted throughout the world. There is, however, discussion regarding the means to be applied in order to reach these objectives, and the means themselves differ according to the specific reality of each country.

For instance, during the last two decades, a substantial increase in health expenditures has been observed in almost all developed economies. In certain countries, this became to be perceived as a threat to the future growth of the economy and pointed to the need of reforming this sector, in order to stop the acceleration of cost increases and, at the same time, achieve the dual goals of universal access of the population to the health system and of quality services.

Consequently, considerable attention has been given to the reliable and systematic measurement of this variable, as well as to the acquisition of internationally comparable data. Until very recently, "health expenditure" generally meant public financing, which ignored the enormous importance of private expenses, and particularly, of household expenses, for the financing of the health needs of a population. Subsequently, household income and expense surveys have enabled to correct this omission.

The OCDE member countries were the first to produce a reliable, systematic and comparable health statistics system that took into account all financial flows within the sector, whether they originated from internal, public or private sources, or externally. This led to the creation of the

---

<sup>4</sup> Hammer, J. and Berman, P., **Ends and Means in Public Health Policy in Developing Countries**, in *Health Sector Reform in Developing Countries*, opus cit.

National Health Accounts that describe the expenditure flows within the sector, according to their origin, the type of services acquired and the funding channels of the whole health system.

United States has continued this initiative, in an effort to understand why this country, whose expenditures exceed those of any other country in the world -- more than 10% of its Gross Domestic Product (GDP) in 1992 and 14% in 1996 --, still suffered more health problems and had a lower life expectancy than the European countries. This led to the conclusion that the problem was one of resource allocation, which might be identified through the National Health Accounts, and thus, could be monitored and corrected with adequate policies.<sup>5</sup>

If this occurs in a rich country like the United States, one should expect the situation to be much worse in relatively less developed countries, where efficiency and productivity are much lower. And, as these countries lack many resources, it is even more important for them to have reliable information available on national health expenditures, in order to detect inadequate fund allocations.

Consequently, this study aims to contribute to the achievement of an equitable, universal and quality health system that improves the health, the well-being and the standard of living of the population. The study mainly focuses on an analysis of equity in health financing in the Dominican Republic, and particularly on family financing and on the government's possibilities to intervene, to correct inequalities, to improve income distribution and to reduce poverty.

In this regard, the study is based on two statistical sources that were produced in the country for the first time in 1996: the National Health Accounts and the Demographics and Health Survey (ENDESA), which included a family health expenditure module for that year.

## THE DOMINICAN HEALTH CARE SYSTEM

The Public Health and Social Assistance Secretariat (SESPAS) is in charge of the Dominican health care system. It owns and directly administers a large delivery network, with 56% of total hospital beds. The Social Security Institute (IDSS) is another important player, notwithstanding its low population coverage. It is also in charge of its own delivery network, with a share of 8% of total beds. There is a huge and diversified private sector, both lucrative and non-lucrative, which offers direct provision of services and insurance. The private providers have been estimated in at least two hundred, with a 36% of total hospital beds and a wide range in terms of quality: there are some big high quality hospitals, mostly in large cities, and many small clinics which serve mainly to the low income population. In fact, it is estimated that 80% of private beds are in small hospitals with less than 20 beds each.<sup>6</sup>

Regarding the health situation, the Dominican Republic is at an early stage of epidemiological and demographic transition, presenting an illness mosaic, which includes some of the typical poverty ailments, at the same time with a growing share of chronic illnesses, and lesions due to violence and accidents. Santo Domingo, the national capital, is the region where this process is more advanced than the rest of the country.

---

<sup>5</sup> McGreevy, William, **National Health Accounts of the World Bank, Past and Prospect**, World Bank, Washington, D.C., 1997.

<sup>6</sup> La Forgia, G., Gómez, C., Molina, M., Duarte, I. **Los servicios de salud en el Distrito Nacional por sectores, 1987: organización, cobertura, financiamiento y utilización**, Población y Desarrollo, Boletín No. 22, IEPD-Profamilia, 1988.

Bearing in mind its stage of development, human resources and infrastructure seem to be adequate in the Dominican health care system. The number of physicians is well over international recommendations, probably as a result of the proliferation of medical schools during the seventies and eighties. However, there is a high geographic concentration in Santo Domingo and other urban zones. This combined with inadequate resource assignment, results in important productive inefficiencies and labor perturbations.

Other important conclusion resulting from the present study is that, socially speaking, there is a clear correlation between family income levels and the utilization of health care services. Notwithstanding the fact that the poor get sick more often than the rich, they tend to seek care less frequently, and an important proportion do not do this for lack of money. They have a greater perception of the low quality or lack of access to the public services than the higher income groups. With regards to dental problems, whose treatment is expensive and for which there is almost no public financing; the correlation between utilization and family income is even higher.

Women are the main users of the health care system, since pregnancy and delivery are the health problems for which most attention is demanded, both at the ambulatory and hospitalization levels. Small children, of less than five years of age and the elderly are also important users.

As a general rule, the SESPAS facilities are the most demanded by the population at the national level, followed very closely by the private clinics. Only in preventive services the public participation is larger. At “grosso modo”, it could be said that, depending on the type of service, about 90% of the population, more or less in equal share, demands SESPAS’ and private clinic services. The remaining 10% include all the other providers: social security, military services, NGO’s and others. If the attention is focused on the urban zone, the private providers show the highest demand, particularly in the Cibao region.

SESPAS is oriented preferably to the poor people, but there are indications suggesting that it cannot reach the poorest among the poor. The health care consumption of this group is not well understood. Access problems, lack of education and lack of resources, suggest the need of further research.

At the upper income levels, there is an important group of people who use the public facilities, while about a third of the poor families demands services at the private sector. Although salaries of legally social insured workers have a ceiling of one and a half-minimum salary, most of the IDSS users are above that ceiling. It is estimated that only a half of the insured population uses the IDSS’ facilities, but there is a similar group with higher income that uses them without being insured, as a result of special permissions. This implies a subsidy from lower income taxpayers to higher income non-taxpayers.

One of the main indications of the lack of equity of the Dominican health system is the fact that about one third of the poorest Dominicans seek attention in the private sector, without insurance coverage, paying out-of-pocket. This worsens their poverty situation, more so in the case of the chronically ill. As a result of this, the most vulnerable population must confront a higher financial burden than the rest. This will be explained in the next section.

## **HOUSEHOLD HEALTH EXPENDITURES: AN EQUITY APPROACH**

The main component of household health expenditures, is ambulatory care. This is mostly driven by drug expenses, which represent about 61%. This is coherent with a big medication market, moved mainly by family expenses through pharmacies and private clinics, estimated in about 20% of national health expenses<sup>7</sup>. As there is practically neither a social security system nor a strong public intervention through finance and regulation, the sector grows responding to free market forces. As an example, only 6% of total drug sales are generics, resulting on higher costs for the households.

Drug expenses are also very high in Latin America, as with the mean of seven Latin-American countries, estimated at 37% of total family expenses. This percentage rises to 52% for the poorest quintile of the population.

The second component of the ambulatory expenses includes the whole range of diagnostics means. Transportation costs are also important, suggesting geographic access difficulties, which sum up on the fact that the referral system is inoperative and Dominican rural inhabitants perceive they will receive a better attention if they travel to the Capital.

With regards to equity analysis of household health financing, the main differences found in this paper are related to the income level of households. The predominant type of payment is out-of-pocket, and there are no completely free services, not even public preventive ones. The insurance coverage is low: 82% of the people have no coverage at all, and this percentage rises to 91% in rural areas. As it is recognized, insurance constitutes a protection against the financial risk of an illness, and allows this risk to be distributed among large groups of people.

The lack of equity of the Dominican health care system results from this low insurance coverage, together with a high demand for private services by the population – including the poorest -- and the lack of regulation of private providers, who do not generally have the vision to find low cost treatment alternatives for the poor. In this connection, consumption of even essential health services is linked to household income.

Men have more insurance coverage than women, mainly because insurance is a function of employment, and there are more men employed than women. Nevertheless, there are discriminatory practices: public insurance excludes workers' wives and most private insurers exclude unmarried women, who are the majority in this country.

Insurance coverage rises with income levels. However, the fact that only a third of the richest quintile had coverage in 1996 is certainly striking. One explanation could be a huge proportion of self-employed people; another, the high costs of family plans and maybe the reduced marketing of the private insurance companies. It also reflects the wide income differences in this quintile.

As a result of all these, families must confront an important financial burden in order to take care of their health. The household's income proportion assigned to health care is 8.2% in the poorest quintile and 2.9% in the richest one. The form of the curve is descending, which contrasts with the reality in most countries, because the rich tend to seek more technological attention, more amenities, and invest more than the poor in expensive treatments designed for the terminally ill patients.

One explanation of the high expenses of the poor families resides in the lack of confidence in the public system. They are encouraged to seek care in more expensive private facilities. This

---

<sup>7</sup> This is not reflected in the NHA. This is an area which demands further investigation.

happens without insurance coverage, paying out-of-pocket and frequently having to borrow money or sell assets to confront the financial burden of health care.

This is the clearest indication of the lack of equity of the financing of the Dominican health care system.

## **IS PUBLIC EXPENDITURE DISTRIBUTIVE?**

Family health expenses constitute an important component of total expenditure of any economy in this sector. A decade ago, Latin American studies on the health sector did not take into account this fact and, fundamentally, focused their attention on government spending. As pointed out earlier, the European countries of the OCDE were the first ones to realize this situation and to start collecting information on family expenses, on the basis of household surveys, and more particularly, income and expense surveys. Subsequently, they prepared National Health Accounts at an international scale that included both public and private expenses.

Studies conducted by the IDB, the World Bank and PAHO, since 1993, have shown that private expenses and, basically, the expenses of families, represent about 50% of the total expenditure of a country.<sup>8</sup>

The fact that family expenses are such an important component of total expenditure is a first indicator that there might be equity problems in the health financing of a particular country, as the market is not a good mechanism to allocate resources equitably within the health sector.

## **The Role of the Market**

Indeed, it is now recognized worldwide that the health services market is one of the most -- if not the most -- imperfect of all markets. On the one hand, consumption of these services is considered as essential, while, on the other hand, it is almost impossible for the so-called "sovereignty of the consumer" to operate in this market, although this is a basic premise for the adequate functioning of any market.

As an example of these imperfections, it would be enough to mention that, as far as demand is concerned, the user of the services, i.e. the patient -- who generally is ill --, is not the one who demands the service. It is the doctor who induces the patient to purchase these services, in the form of drug prescriptions, diagnostic means and clinical interventions. The users do not have sufficient knowledge to judge whether they need these treatments or whether they are cost-effective or not, because there exists an asymmetry of information among them. As their life is at stake, patients obviously prefer to believe what the doctor tells them, while the latter, in general, has not been trained to take into account the problem of cost when writing a prescription.

To complicate matters even further, the normal trend in the development of this market is towards generalization of medical insurance; this means that a third party pays for the bulk of medical care, which incentivates consumption even more. Moreover, as far as supply is

---

<sup>8</sup> Henderson, Pamela, **Gastos familiares de salud en América Latina y el Caribe** (Family health expenses in Latin America and the Caribbean), PAHO, Health Policies Program, December 1994.

concerned, there is a general trend to try new products, new technologies and treatments. This increases the costs of care and creates new needs, that the users accept to pay, as their own health is involved. This borderline situation, where price considerations no longer matter, regardless of the user's economic situation, has been called a "life or death" case in the literature on this topic.

All these imperfections have led to the need for introducing new regulations for the clinical services and insurance markets. Also, supply has been changing, as new organizations have been created that integrate the providing and insuring functions, while sharing risks and limiting costs. On the other hand, it is necessary to protect the consumer through public intervention, by subsidizing services for the poorest sectors of the population, through regulation of insurance systems in order to avoid unfair exclusions, or by promoting the education and organization of consumers.

International experience has shown that, even with these regulations, it is difficult to protect the whole population. The free market, simply, does not work in the health sector, due to the abnormal characteristics of the latter. Many countries in the world are involved in processes to reform this sector, trying to correct its deficiencies which, in terms of equity, are much worse in the markets with the highest degree of freedom, such as the United States. This country is now introducing changes to restrict this freedom, but they are difficult to implement, due to the strength of the power groups. Other countries, with central planning systems, like Sweden and Great Britain, have more coverage and better results, at a lower cost. However, they are also reforming their systems, especially to increase quality, efficiency and user satisfaction. Some of these changes include the so-called "internal markets", which means that competition is introduced into the public sector, in order to increase efficiency.<sup>9</sup>

As one can see, the world is looking for a health system that brings together the best of different experiences and would, thus, constitute an intermediate solution between two extremes. It is expected that it would improve the health of the population at the lowest cost and, while at the same time, providing universal coverage, better quality services and a more integral and humane treatment for the people.

Regarding the translation of these ideals into realities, empirical information has led to the conclusion that strong and decisive government intervention is necessary, even more so in the developing countries. Nevertheless, this does not necessarily imply direct provision of services. This topic is dealt with in the next section.

## **The Role of Public Financing**

All the above draws the attention to the importance of public financing for the health system, for the purpose of correcting inequalities of access to and utilization of these essential services. Indeed, numerous studies have found a positive correlation between the degree of public participation in health financing, and per capita income; the general trend is towards an increase in public financing as the country progressively develops, which, in turn, results in an improvement of the population's health.

Table 2 shows the large differences among public participation in health financing in the Dominican Republic and the averages of all the regions in the world. Part of these differences

---

<sup>9</sup> A broad discussion of this topic can be found in William Hsiao, **Abnormal Economics in the Health Sector**, published in the book of P. Berman, *Health Sector Reform in Developing Countries: Making Health Development Sustainable*, Harvard University Press, (1995).

are explained by the fact that the country practically does not have a social security health system, which in many countries constitutes the main component of public financing. But, even within Latin America, and comparing with individual countries, the low participation of the government in the financing of the health sector stands out.

In the Dominican Republic, the government has traditionally allocated scarce funds to the social sectors and, within the latter, the proportion of GDP assigned to health has fluctuated around 1%. Consequently, there is a strong need for more public financing in these sectors. Besides, it is necessary to guarantee that funds are allocated in adequate relation to the needs of the population, and that those subsidies are granted to the social groups that need them most. The former topic has to do with the productivity of social expenditure, and the latter with its distributive effect. The latter is discussed in the following section.

### The Distributive Effect of Public Expenditure

The studies on this topic are part of the theory of the incidence of fiscal policy, which refers to the capacity of the tax system and of public expenditure to modify the distribution of income. In the case of taxes, it is said that a taxation system is "progressive" when it proportionally taxes the rich more than the poor. In the case of public expenditure, and especially of social expenditure, it has to be determined whether the tax system benefits in a higher proportion the lower-income groups. When this is the case, part of the family consumption is subsidized by the State, and families enjoy a higher standard of living than they would without the subsidy.

Since the end of the seventies, numerous studies on the incidence of fiscal policy have been conducted in Latin America.<sup>10</sup> The majority of these studies agree that social public expenditure is an effective mechanism to redistribute income and, thus, to mitigate the effects of poverty. Figure 9 shows the effect of this subsidy on the income of the poorest quintile in each country.<sup>11</sup> In all countries, the effect of government intervention was an improvement of the consumption level of the poorest group, which means that social expenditure was progressive in relation to income distribution.

But, the proportion is not the same. In the Dominican case, the State subsidy contributes to increasing family income of the poorest sector by 35%, while in the case of Chile, this increase was 171%, i.e. almost five times more.

---

<sup>10</sup> Some of the predecessors of these studies are: Marcelo Selowsky, **Who Benefits from Government Expenditures - A Case Study of Colombia**, Oxford University Press, 1979. Elke Meldau, **Benefit Incidence - Public Health Expenditure and Income Distribution: A Case Study of Colombia**, The Christopher Publishing House, Mass., 1980. Alejandro Foxley et al., **La distribución de la carga tributaria** (Distribution of the tax burden), CIEPLAN, Chile, 1977. Kotlikoff, L. and L. Summers, **Tax Incidence**, in Auerbach and Feldstein, *Handbook of Public Economics*, North Holland. Mann, A.J., **La carga de las contribuciones y los beneficios de los gastos públicos** (The burden of contributions and the benefits of public expenditure), Puerto Rico, University of Mayagüez, 1973. Petrei, A. Humberto, **El gasto público social y sus efectos distributivos** (Social public expenditure and its distributive effects), ECIEL, 1987. Rodríguez Grossi, J., **La distribución del ingreso y el gasto social en Chile** (Income distribution and social expenditure in Chile), Ilades, 1983. For the Dominican case, see Santana and Rathe: **Impacto distributivo de la gestión fiscal** (Distributive impact of fiscal management), Santo Domingo, (1992) and **Reforma social: una agenda para combatir la pobreza** (Social reform: an agenda to fight poverty), Santo Domingo, (1993). For the specific case of the health sector, see Ravindra Rannan-Eliya, Claudia Blanco-Vidal and Nandakumar, **Equity in the Delivery of Health Care in Egypt: An Analysis Using a National Health Accounts Framework**.

<sup>11</sup> Petrei, A. Humberto, op. cit. The part corresponding to the Dominican Republic was prepared by a team composed by F. De Moya, I. Santana and M. Rathe.

This is even more striking when one takes into account that, at the date of this research study, the Dominican Republic and Chile were the countries that had the most unequal distribution of income among the countries studied. Thanks to social public expenditure, Chile managed to substantially alleviate this situation, while in the Dominican Republic the pattern of distribution remained practically unaltered. Figure 10 shows the distribution of social public expenditure per income quintiles for these two countries. It may be noted that, in spite of the great differences between them, the orientation of the curve is similar. This indicates that social expenditure tends to be progressive in relation to income.

However, not all-social sectors progress to the same degree. Those with a high component of capital investment, such as water, sewerage and housing, exert less impact on the well-being of families. On the other hand, public expenses in health, education and social security have an important distributive effect, as international literature on this topic shows.

### **Public Health Subsidies: The Case of the Dominican Republic**

As pointed out earlier, certain studies have tried to determine the incidence of health expenditure in the Dominican Republic during the eighties. Thanks to the creation of the National Health Accounts in 1996, more detailed and reliable instruments are now available. Likewise, continued elaboration of these National Health Accounts and periodic compilation of family expense statistics, will make it possible, in the future, to study their evolution over time.

This section describes the main results of the National Health Accounts and presents the corresponding estimates to calculate the distributive effect of public health expenditure.

#### **National Health Accounts**

The National Health Accounts describe the flow of expenditure within the sector, according to four basic matrices that consolidate financial information on this sector and allow to calculate National Health Expenditure for a particular year, including operations in both the public and the private sectors. They were prepared for the first time in the country in 1996 by the Central Bank of the Dominican Republic. Family expenses were estimated on the basis of the results of the ENDESA-96 survey. Besides, specific studies were conducted on the sectors of private insurance and NGO's.

The definition of health expenditure adopted for the calculation of the National Health Accounts is as follows: "Health expenditure is composed of all disbursements for prevention, promotion, rehabilitation and care, whose primary objective is the improvement of health". This definition excludes large programs that affect health without this result being their main purpose, such as general food subsidies, the provision and improvement of drinking water, housing improvement, expenditure for community services and social assistance.<sup>12</sup> But, as separate information, the National Health Accounts of 1996 present corrected matrices that include the most important items excluded from the previous definition.

The main findings of the National Health Accounts for the year 1996 are summarized below. National Health Expenditure, i.e. the total value allotted by Dominican society for the coverage of its health needs, amounted to RD\$11,918.7 million, which corresponds to US\$876.4 million, equivalent to US\$112 per person.<sup>13</sup>

<sup>12</sup> Central Bank of the Dominican Republic, **National Health Accounts**, Methodological Report, (1995).

<sup>13</sup> It should be pointed out that these figures are preliminary, concerning both the amount and the classification.

In order to have a fair idea of what this figure means in relation to the size of the Dominican economy, as well as to make international comparisons, one calculates the percentage of the Gross Domestic Product (GDP) that this figure represents. The GDP measures the value of the production of goods and services in a particular year. In this regard, National Health Expenditure represents 6.5% of GDP in 1996, of which 1.5% corresponds to the public sector, 4.8% to the private sector and 0.2% to the rest of the world, in the form of financial cooperation.

**Table 3**  
**NATIONAL HEALTH EXPENDITURES BY SOURCE**

CONCEPT	US\$		
	Millions	Total %	GDP %
<b>GDP</b>	<b>13,495.0</b>		
<b>NATIONAL HEALTH EXPENDITURES</b>	<b>876.4</b>	<b>100.0</b>	<b>6.5</b>
<b>PUBLIC SECTOR</b>	<b>206.2</b>	<b>23.5</b>	<b>1.5</b>
Central Government	193.2	22.0	1.4
Rest public sector	13.0	1.5	0.1
<b>PRIVATE SECTOR</b>	<b>647.6</b>	<b>73.9</b>	<b>4.8</b>
Households	547.1	62.4	4.1
Firms	100.4	11.5	0.7
<b>REST OF THE WORLD</b>	<b>22.6</b>	<b>2.6</b>	<b>0.2</b>
Government external revenues	14.7	1.7	0.1
NGO external revenues	7.9	0.9	0.1

SOURCE: D.R. Central Bank, NHA, 1996.

Table 3 presents the following figures, in percentages of National Health Expenditure: 24% of total National Health Expenditure proceeds from public sources (government, decentralized institutions and public enterprises), 73.9% from private sources (households and business<sup>14</sup>) and 2.6% from the rest of the world. The latter concept refers to the sector revenues from abroad, in the form of loans, donations and payments to national providers by residents abroad.

<sup>14</sup> The contributions of business are shown separately. They are, basically, contributions for the purchase of private insurance, which means that they may be considered as part of the salary cost and, consequently, also as family expenditure.

The funds assigned by the Dominican economy to the health sector are channeled through the "financial agents", i.e. the institutions that administer health funds for the different groups of the population, either through services that these institutions provide themselves (such as the Ministry of Public Health and Social Assistance, SESPAS, and the Dominican Institute of Social Security, IDSS), or through services acquired from other providers (such as private insurance

plans that acquire the services from clinics and others). Table 4 presents a summary of health expenditure per financial agent.

**Table 4**  
**NATIONAL HEALTH EXPENDITURES BY FINANCIAL AGENTS**

FINANCIAL AGENTS	US\$	
	Millions	Total %
<b>NATIONAL HEALTH EXPENDITURES</b>	<b>876.4</b>	<b>100.0</b>
<b>PUBLIC AGENTS</b>	<b>231.9</b>	<b>26.5</b>
Central Government	165.6	18.9
IDSS	59.8	6.8
Public firms	4.4	0.5
Others	2.1	0.2
<b>PRIVATE AGENTS</b>	<b>635.5</b>	<b>72.5</b>
Formal firms (1)	315.5	36.0
Private insurance (2)	90.5	10.3
NGO (3)	67.4	7.7
Informal sector (4)	162.2	18.5
<b>REST OF THE WORLD</b>	<b>8.9</b>	<b>1.0</b>
Purchase of services (5)	8.9	1.0

(1) Hospitals, clinics and diagnostic centres, incorporated as firms paying IRS. (2) Insurance companies, pre-payment plans and "iguales" (does not include self-administered plans); (3) Data from survey of 40 NGO's; includes "Plaza de la Salud"; (4) Doctor offices, small clinics and other services not formally incorporated; (5) Dominicans' health expenses abroad.

SOURCE: D.R. Central Bank, NHA, 1996.

Household financing constitutes 62.4% of the total and can be broken down in RD\$6,936.3 million (US\$510 million) of direct payment, basically to private providers (94%) and RD\$504.9 million (US\$37 million) spent by the families on prepayment services, copayments and payment of dues to the IDSS. If it is assumed that payments by business, both to social security and to private insurance, also constitute family contributions (as they are part of the salary), then the latter figure increases considerably.

The analysis of this data enables one to conclude that, in the Dominican Republic, National Health Expenditure remains, within limits, comparable to the average of Latin American countries, i.e. 6.2%.

In a recent pilot study of National Health Accounts, conducted in 1997 and 1998, with the same methodology, comparable results were achieved for a set of eight Latin American countries. Some of these preliminary indicators, obtained from the summaries of country studies, are shown in Table 5, where it can be observed that per capita expense in the Dominican Republic is higher than in Ecuador, Guatemala and Nicaragua, but lower than in El Salvador and Mexico. As far as the proportion of GDP is concerned, the Dominican Republic is in the third position.

Numerous studies carried out worldwide do not show a clear correlation between the size of the economy, the amount spent on health as a proportion of GDP and the results for the population's health.<sup>15</sup> Although it should be expected that if a country spends generously, it should also obtain better sanitary results, in practice this is not always true, because much depends on the productivity of social expenditure as well as on the form of organization of the health system. The European countries, for instance, have achieved universal coverage with relatively low proportions of health expenditure, while the United States, the country that makes the largest allocations to this sector, has to face the paradox of possessing services of the highest quality for the wealthiest group (the satisfied majority, as Galbraith calls them), at the expense of leaving without coverage about 40 million poor.

**Table 5**  
**COMPARATIVE INDICATORS OF L.A. COUNTRIES**  
**PARTICIPATING IN NHA STUDY**

Countries	NHE / GDP %	Household Expenses % GDP	GDP per capita US\$
Ecuador (1995)	4.6	35	71
El Salvador (1996)	7.3	59	135
Guatemala (1995)	3.7	55	57
México (1995)	5.5	57	168
Nicaragua (1996)	13.2	38	58
Perú (1996)	4.2	37	nd.
Rep. Dominicana (1996)	6.5	62	112

SOURCE: PHR, NHA, Summary of eight national studies from Latin-America and the Caribbean, 1998. Revised data from the DR from Central Bank, NHA, 1999.

On the other hand, a system where direct payments prevail, as is the case of the Dominican Republic (see fig. 12), is probably - given similar levels of coverage and results - much more expensive than a system where prices and consumption are controlled, as in public integrated systems (e.g., Costa Rica or the countries of the English Caribbean) or in those where functions are separated and contracting mechanism are used (Chile).

Probably, the most important finding of the National Health Accounts of the

Dominican Republic is the large share of family expenditure dedicated to health. These funds are paid out of the pockets of the Dominican families themselves to purchase health services from providers, i.e. clinics, diagnostic centers and pharmacies of the private sector; but, also, to pay for inputs that are not available at public hospitals, through the recuperation fees that the latter charge and through transportation expenses that people have to incur to reach any health center. This situation, together with low insurance coverage, is the main indication of the lack of equity of the system.

In the Dominican case, the inefficiency (and, probably, also the insufficiency) of public services has led the population to look for individual and private solutions to its problems, which has increased costs at the national scale. Fig. 13 suggests inefficiency problems: high administrative plus regulation costs and low funds assigned to promotion of health and prevention of disease. Besides, there is almost no funding for research also. It is striking that private agents spend more in promotion and prevention than public ones. It is also noteworthy the huge proportion assigned to administrative expenses by the private sector, which is larger than the administrative expenses plus regulation in the public sector. The former suggests that private health firms are maybe obtaining too large a surplus.

The data of health expenses by object and agent type shows that public agents are paying much more than private ones for salaries and other personnel expense. This is consistent with the generalized idea that the public health sector is managed more as an employment government intervention than as a service delivery network.

<sup>15</sup> See George Schieber and Akiko Maeda, "A Curmudgeon's Guide to Financing Health Care in Developing Countries", in **Innovations in Health Care Financing**, The World Bank, (1997).

### **Estimate of the Distributive Effect of Public Health Expenditure**

On the basis of data from the National Health Accounts and of information from ENDESA-96 on income distribution of consumers of different public health services, it is possible to attempt a first approximation to a study on the distributive effect of public health expenditure.

In this regard, three questions should be answered: What proportion of total family consumption of health-related goods and services is contributed by the government, in the form of subsidies to the sector? The families finance what proportion? How is public subsidy distributed among the different social groups, i.e. what part of the total expenditure paid by the government is received by each one of these groups?

To respond to the first question, let us consider the table of health expenditure per financial agent, which shows that public agents contribute RD\$3,154 million (US\$232 million), as shown by the matrices of the National Health Accounts. Central government expenditure is limited to SESPAS, the Office of the President of the Republic, PROMESE and the Armed Forces. The methodology of distribution of the subsidy among different income groups, uses the income distribution of patients requiring ambulatory services from SESPAS, according to ENDESA-96. It was decided to use this distribution (instead of patients using hospital services, for instance, where the bulk of public health expenditure is concentrated), because the number of cases is sufficiently large to be statistically representative.<sup>16</sup>

A similar procedure is applied to IDSS expenditure. These amounts are added to the annual expenses of families for different items. In all cases, an average is made of the expenses of those families who had health problems, out of the total population and per income groups, in order to obtain figures at national scale that are, also, comparable internationally. The results are shown in Table 6 and Graph 14.

Note how public subsidy represents 36% of total financing per person in the first quintile, and decreases to 19% among the wealthiest group of the population. This indicates that health expenditure is progressive in relation to income, or in other words, that the government spends more for the poor than for the rich, and thus contributes to raise their standard of living. Nevertheless, the proportion of this contribution does not change substantially, which allows one to conclude that public health expenditure is insufficient, unfocused or delivered inefficiently. The truth probably lies in a combination of all these reasons.

---

<sup>16</sup> A comprehensive analysis of this topic should examine public health expenditure per level of attention and type of service, and include estimates of a regional nature. However, information on public expenditure segregated according to these categories is not available, nor is there complete data on income distribution of all users of certain types of services. The establishment of reliable estimates for all these figures goes beyond the scope of this paper.

Parts of total health care consumption are financed by the government and by the families, respectively. It should be noted that 81% of expenditure of the richest group is private, while among the poor, this figure is 64%. Note, also, the total financing of the first and last quintiles, as well as their composition, among family expenses and public subsidy. The richest group privately spends 74% more than the poorest group, although its average income is seven times higher, while its total consumption is only 38% higher for health services, due to the effect of the public subsidy. This shows, once again, that in all cases, both poor and rich families finance the bulk of expenditure with their own resources.

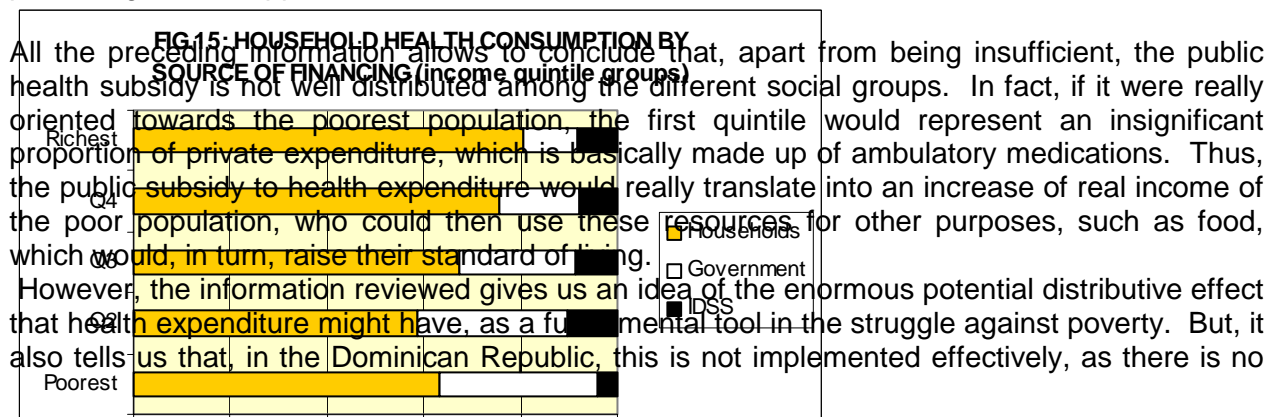
**Table 6**  
**DISTRIBUTION OF PUBLIC SUBSIDY BY INCOME QUINTILE**

SOURCE	National average	Q1	Q2	Q3	Q4	Q5
<b>PUBLIC SUBSIDY</b>	<b>29.1</b>	<b>31.0</b>	<b>35.0</b>	<b>29.1</b>	<b>27.5</b>	<b>22.8</b>
Central government	0.7	27.4	26.3	21.4	18.6	13.3
IDSS	7.7	3.6	8.7	7.7	8.9	9.5
<b>HOUSEHOLD EXPENSES</b>	<b>70.1</b>	<b>54.4</b>	<b>49.8</b>	<b>59.8</b>	<b>84.2</b>	<b>94.8</b>
<b>TOTAL</b>	<b>99.2</b>	<b>85.4</b>	<b>84.9</b>	<b>88.9</b>	<b>111.7</b>	<b>117.6</b>
<b>% of public subsidy</b>	<b>29.3</b>	<b>36.3</b>	<b>41.3</b>	<b>32.7</b>	<b>24.6</b>	<b>19.4</b>

Concerning the last question, "How is the public subsidy distributed among the different income groups?", one has to consider the amounts of subsidy channeled by each institution towards the different social groups. Who benefits from the public subsidy? Graph 15 shows that central government financing, particularly of SESPAS, benefits the poor more than the rich.

The expenditure curve of IDSS, on the other hand, rises with income: it is minimal in the poorest group and reaches its maximum in the last quintile. Hence, the second quintile benefits most, as it receives a substantial proportion of the central government's public subsidy, as well as about 15% of the IDSS subsidy. There is, also, an important increase of what the richest 40% receive, which considerably contributes to reducing the progressive nature of public financing.

Graph 16 illustrates the results of several studies conducted on this topic, with data for the years 1980, 1989 and 1996. Although the figures are not entirely comparable, they give us an idea of the trends. It can be noted a progressive worsening in the distribution of the public subsidy: while in 1980, 41.3% was concentrated among the poorest population, in 1996 this percentage had dropped to 21%.<sup>17</sup>



<sup>17</sup> It should be clarified that, in 1980, no surveys on demand for health services were available, so that the distribution methodology may have overestimated the utilization of public services and, hence, underestimated the utilization of private services. Nevertheless, there are obvious indications of accelerated growth of the latter during the sixteen years between both studies.

specifically focused policy and there exist significant productivity gaps where many financial resources are lost. The latter will be discussed in the next section.

## The Problem of Productivity

Although the literature on this topic indicates that social expenditure is, generally, progressive, and hence, improves income distribution, the study of the Latin American reality shows that, very often, these resources are squandered among the social sectors, because of inefficiency problems.

A recent study performed by the IDB<sup>18</sup> shows that considerable gaps exist in the health and education sectors in Latin America, in comparison with the results that the different countries should have attained in the last decades, according to the level of development of each one of them. Contrarily to the countries of Southeast Asia and other regions in the world, Latin America has lagged behind and the gaps in its basic services have contributed to deepen poverty, thus locking economic growth into a vicious circle.

In the case of health, this lagging behind is not due to insufficient resources, as Latin America allocates substantial amounts to health, in relation to its domestic product, and compared to other regions in the world. The problem is one of economic productivity and, specifically, of social expenditure productivity, of which the Dominican Republic is a clear example.

This means that it is not enough to assign more resources to a sector - although this is called "investment in health" - nor to focus exclusively on the goal of allocating a certain percentage of GDP to these purposes. It often happens that these fund increases are wasted on expanding payrolls, which are already excessively high to begin with; on raising wages without the corresponding improvements in service quality; on building or remodeling schools and hospitals, without changing the way in which they are managed.

Consequently, it is not sufficient to spend more. Nor is it enough to invest more. What is important is how these expenses or investments are made. Therefore, the problem is the productivity of social expenditure. In fact, it is possible that the government may want to expressly reorient public expenditure and to give priority to health, as it wants to improve the social situation and reduce poverty. However, institutional weakness contributes to inefficient allocation of resources and this, in turn, leads to services of poor quality. In this way, the redistributive effect of social expenditure -- and particularly of health expenditure -- on income, becomes ineffective and restricts the government's ability to reduce poverty and to attain social equity.

For instance, the bulk of social health expenditure in the Dominican Republic (about 70%) is aimed at financing hospitals. But, this expenditure is made without any criterion of economic rationality. The hospital is an "enterprise", frequently worth millions, whose manager, the director, has no real control over the budget, the human resources he/she manages, or over the acquisition of inputs. Personnel is "appointed" at the central level, often bearing no relation to the specialists that the center requires or the staff it receives.

Input procurement is performed by another official agency, and deliveries of supplies bear no relation to what was ordered. Even works of infrastructure and equipment are carried out

---

<sup>18</sup> Inter-American Development Bank, **Economic and Social Progress in Latin America**, "Making Social Services Work", 1996 Report, Washington, D.C., (1996).

without adequate coordination and independently from sectoral strategies. Besides, the large sums invested in these items are rapidly lost, due to the absence of administrative systems to manage and maintain them adequately. Indeed, there is no systematic collection of information on costs, referral patterns, quality, and results. There is an excessive personnel throughout the public system, but it is concentrated in certain places and services, with great deficiencies in other parts of the country. There are no mechanisms to promote productivity, no incentive systems, and no modern management techniques are applied.<sup>19</sup>

As a result, it is quite likely that productivity of health services is very low<sup>20</sup>, although there are no systematic studies to measure this. Certain indicators to this effect are, for instance, the fact that between 1985 and 1995, the number of physicians of SESPAS tripled, while the number of consultations dropped by half. In the case of IDSS, the average number of consultations per physician, in 1995, was 2.2 per day, while the international standard is four per hour.<sup>21</sup> These examples serve to show that, although it is recognized that public financing is important to correct social inequalities and to reduce poverty, the lack of productivity may render useless the efforts to increase public expenditure.

Another factor that has considerable impact on the inefficiency of the public system, is the geographic concentration of its resources, both financial and human. Indeed, the National District, where the capital of the Republic is located, receives 47% of actual expenses, while it only harbors 30% of the country's population. Likewise, it spends 56% more per inhabitant than the rest of the country, on average.

Besides, there are substantial differences according to the levels of care. High priority is given to the allocation of funds to the tertiary care level, especially in the National District. At the same time, primary care only receives limited amounts, in spite of official statements, during many decades, on the priority for basic health. The majority of these expenses correspond to human resources, but in variable proportions according to the levels of care. At the primary level, personal services represent 59%, at the secondary level 70% and at the tertiary level 66%. At all levels, the establishments in the National District receive financing that doubles the national average.

Although the government has initiated certain actions to correct this situation by creating provincial health directorates, there is still a long way to go. These new entities, with minimal budgets and no control over the financial, physical and human resources of the provinces under their supervision, have few possibilities to survive. Nevertheless, in spite of the fragility of these first steps, they seem to be going in the right direction.

In conclusion, public financing of the health sector is, indeed, redistributive and does have a great potential of contributing to the creation of equity in the health system, as well as of improving the social situation. In the Dominican case, it is absolutely necessary to carry out a sectoral reform that orients public resources towards the low-income groups. Moreover, actions are needed to enhance the efficiency of the system, to ensure that the efforts made by society in favor of equity, are feasible and effective. Some of these topics are discussed in the next pages.

---

<sup>19</sup> See document of DR-IDB Project, **Modernization and Reform of the Health Sector**, (DR-0078).

<sup>20</sup> Considerations on the productivity of health expenditure are given as examples, because an analysis of this nature would be beyond the scope of this paper.

<sup>21</sup> DR-IDB Project, op. cit.

## LESSONS LEARNED FROM THE STUDY OF HEALTH FINANCING

The preceding pages aimed at highlighting the equity problems that exist in the health sector in the Dominican Republic, as well as showing the possibilities for government intervention to reduce differences and to contribute to a more just society. Next, several recommendations are suggested to improve equity in the sector and to evaluate changes in future policies, through a systematic effort of information-building.

### How to Improve Equity in the System

The analysis of equity in health financing in the Dominican Republic leads to the conclusion that it is extremely unfair, to the extent that it would justify a structural reform by itself. The fundamental objective of this reform would be to invert the public-private composition of expenditure, to increase public contribution and to reduce direct payments. Surprisingly, this would not require a substantial increase in public expenditure. The amount of such increase has not been determined, but a reorientation of resource allocation would already produce savings. Public participation could be increased by the following means:

- Reform of the health insurance system, which would be self-financed and thus, would only require an additional government contribution to insure its own employees.
- Reorientation of public expenditure, in order to focus the bulk of resources on the poor population.
- Increased efficiency of public services, including better regulations, which would, in turn, improve the allocation of funds.

Some lines of action are presented below for the implementation of the above proposals.

#### **Reform of the Insurance System**

Regarding health insurance reform, a new system has to be created, because current social security is barely used by a very small fraction of the population who, moreover, does not have any trust in the system. On the other hand, private insurance plans tend to exclude the population who is most at risk and there is no legislation that establishes guidelines for such plans, nor is there a risk adjustment system to prevent unfair exclusions. Likewise, there is no supervisory body charged with monitoring the medical practices or the financial strength of insurance companies.

Some of the most important characteristics of a reformed social security or national health insurance system would be the following:

- Clear separation of the functions of regulation, financing, insurance provision and specialized supervision.
- Establishment of a new legal and regulatory framework that sets operating standards for all the components of the system, while eliminating privileges and correcting discrimination.
- Creation of a reliable and universally accepted financing mechanism (collections and payments of providers, and establishment of prices and risk adjustments).

- Definition of a set of health benefits to be offered by all system providers, with a high preventive and health promotion component.
- Definition of the form of financing and delivery for catastrophe-related services.
- Freedom of choice of provider by the user directly, and not by the employer, during certain fixed periods of time at regular intervals (two years, for instance).
- Promotion of the creation of cooperatives for health services purchasing, in the case of large employers (the government, for instance, or business associations).
- Creation of a modern and efficient specialized supervision system, in order to ensure financial reliability, settlement of conflicts and supervision of user satisfaction and quality.

Through the creation of this new system, insurance coverage could be extended to, at least, 50% of the total population. Estimates indicate that this objective would be feasible within the framework of a financially self-sustaining system, with contributions from companies, institutions and employees, and without need for government subsidies. Of course, the government would contribute the necessary funds as employer of its own employees. In fact, this is already the case, because many public institutions purchase private insurance policies, including SESPAS (Ministry of Public Health and Social Assistance).

In addition to the contributive system, another important social sector that does not earn wages could be included in the coverage. Indeed, there exist population groups with limited contributive capacity, such as the microbusiness sector. One could promote the creation of an insurance system partially subsidized by the government, together with the payment of a minimum solidarity fee from the contributive system.

### **To Reorient, Target and Improve the Efficiency of Public Resources**

An essential part of the activities of SESPAS is the financing of so-called "public goods" in health, i.e. those interventions that benefit the population at large, without possibility of identifying each and every one of the beneficiaries. In spite of their high priority, these programs have traditionally lacked the necessary resources. In a country like the Dominican Republic, with obvious problems of overcrowding, unsanitary conditions and lack of basic services, adequate financing of these programs would improve by itself the health situation of the population.

Thus, the government should increase funding for public health actions, i.e. preventive and health promotion programs aimed at the whole population. This would expand availability of information on how the people themselves could prevent disease, take on responsibility for their health and, in this way, enhance their well being.

Regarding services aimed at the people -- the core of this paper and, currently, the target of practically all-public funds --, it should be remembered that there exist really poor sectors in the country, without any contributive capacity. At present, these people do contribute -- sometimes, substantially -- to the financing of the sector, as is shown by the analysis in this study, not only because part of them go to the private sector, but also because certain interventions, medications, materials and recovery fees have to be paid for in the public services. This is an indication of the lack of equity in the system, since it obliges the poor to finance their own health, and in so doing, it increases poverty and social inequalities. This population group could

be covered progressively by a State subsidy and through reorganization of the services currently provided by SESPAS.

Public funds should be targeted to the poor population. As indicated above, even those who belong to the wealthiest group are now benefiting from the services of SESPAS, while a large number of poor use the private services. In order to make the use of these resources more cost-effective, i.e. to ensure that every peso invested benefits more people, priority has to be given to the basic services.

A way of reorienting expenditure towards basic attention and, more particularly, towards mothers and children, would be to define a set of essential health benefits, which would be provided in targeted fashion, i.e. on a per capita basis, to the poorest in the country. This guarantees that the services would reach those who need them and that resources would not be scattered among other activities.

As pointed out earlier, the bulk of public health expenditures is concentrated in hospital care, quite often without appropriate managerial criteria. Hence, if health expenses are to be reoriented and effective priority is to be given to basic health, important decisions have to be made in order to improve the administration of public hospitals. This will free the necessary resources to modify financing priorities.

The only way to ensure that hospitals are managed efficiently and that they comply with their mission, is to transform the viable ones into public enterprises, with modern administration systems and management teams that exercise real control over financial, physical and human resources. Also, many of the hospitals that are now neglected and almost unoccupied, could be reconverted into ambulatory care centers.

Finally, an in-depth process of decentralization and deconcentration with real transfers of funds at subnational levels, as well as a restructuring of staff, is needed. This change in resource allocation is an unavoidable prerequisite to reorient financing in favor of basic health.

### **Some Estimates Regarding the Viability of this Proposal**

As the preceding pages have shown, ambulatory expenditure is the main component of health expenses. For this reason, a reform geared towards subsidizing consumption of these services as well as of preventive medicine, would substantially improve the health and well being of the people and raise the standard of living of the families. Although they would consume more services and, hence, improve their health, they would have to pay much less.

The health reform that is currently proposed in the country is in line with the recommendations presented herein. The wide range of areas covered includes a reform of the social security system. In this regard, it is concluded that it would be feasible to establish a new national health insurance system that would cover all public and private wage-earning employees and their dependents; this would integrate those social groups that have no private coverage at present, as well as those affiliated to the social security system and those who belong to self-administered systems. Obviously, coverage will have to be extended through a gradual process over the coming years.

On the basis of existing estimates, it is thought that during the first year of the new system, 36% of the population could be covered (recognizing existing coverage, including the families, and beginning the process of affiliation of public employees). And, over the next ten years, a minimum of 50% of the population could be reached.

The proposal includes a fairly ambitious Family Benefits Plan that contains the necessary interventions for health problems that affect the Dominican population, according to its epidemiological profile. It also envisages preventive and health promotion as well as catastrophe-related interventions.<sup>22</sup> The cost of this Plan has been estimated at US\$95 per person per year.

The financial viability of this new system requires payment of contributions by high-income employees. These contributions should not exceed a ceiling of five minimum wages, and the contribution rate would be 9%, plus a copayment rate of 10%.<sup>23</sup> It is possible that society at large accepts this level of contributions in the course of the discussions that are taking place for this reform. Otherwise, the only alternative would be to reduce benefits.

The other fundamental component of the reform is aimed at improving equity in the system and has to do with the universalization of basic health services. Indeed, the intention is to cover the poor population through a basic package of ambulatory preventive, promotional and curative interventions, with emphasis on mother-and-child services<sup>24</sup>, at a cost of US\$20 per person per year. It is assumed that the government would subsidize 80% of this package and that the persons themselves, through a copayment system would contribute the remainder.

According to the figures presented in this study, it would seem entirely feasible, from a financial point of view, for the government to focus these interventions on the lowest-income population of the country.

Indeed, if the government decided to target the poorest group, i.e. the first quintile, the additional annual cost incurred would amount to US\$26 million, equivalent to RD\$416 million, at the current exchange rate.<sup>25</sup> This figure represents 11.7% of the budget executed by SESPAS in 1998, and 8.8% of the budget approved for 1999.

On the other hand, the families would benefit substantially, not only because they would receive the services they need and, hence, improve their health (with indirect benefits for the population's health in general), but they would also have to spend less resources. Indeed, according to the survey, in 1996, the persons in this income group spent US\$25 on preventive services, while with the new system, they would only pay US\$4 per person per year. In fact, the financial impact would be even greater, because the basic package would also include ambulatory curative attention and not only preventive care. As we have seen, average

---

<sup>22</sup> Nelcy Paredes and consultant group, "**Plan Integral de Beneficios para el Sistema de Seguridad Social en Salud**" (**Integral Benefits Plan for the Social Security Health System**), Dominican Republic, OCT/CNS Consultant Report, (January 1997).

<sup>23</sup> Calzada, Angeles, "**Modelo de Simulación para la Evaluación de la Viabilidad Financiera de la Reforma al Sistema de Seguridad Social en Salud**" (**Simulation Model for the Evaluation of the Financial Viability of the Social Security Health System Reform**), Consultant Report, CERSS, (November 1997).

<sup>24</sup> See the "**Programa de Modernización y Reforma del Sector Salud**" (**Modernization and Reform Program for the Health Sector**), proposed with a view to develop a Primary Attention Fund (FONAP). The following interventions are included: prenatal attention and delivery; family planning; early detection of cervical-uterine cancer; breastfeeding promotion; food and nutritional education; campaigns against parasites and in favor of micronutrient-enriched food supplements for schoolchildren; control of healthy children; immunization of children; prevention and opportune treatment of Acute Diarrheic Disease; prevention and opportune treatment of Acute Respiratory Infections; prevention of sexually transmitted diseases and AIDS; prevention and control of rheumatic fever; prevention and control of arterial hypertension; prevention and primary treatment of traffic accidents and trauma; antitobacco and antialcoholism campaigns; education for personal, family and community self-help and healthcare; limited care for other affections.

<sup>25</sup> At the first quarter of 1999, the rate of exchange fluctuated around RD\$16 to a dollar.

ambulatory expenses of Dominican families (if the total population is included) represent the largest part of family health expenditure.

The government could obtain the necessary resources to carry out this program from the savings produced by a restructuring of its services, which would imply to reorient the attention model, so as to benefit the primary level. Likewise, through a combination of targeting, on the one hand, and social security reform, on the other hand, the public financial resources used today to subsidize the wealthier groups, could also be channeled towards the poorest sectors.

Indeed, if health insurance were generalized to, at least, 50% of the population, as envisaged in the proposed reforms, these persons would not consume the scarce resources of SESPAS, which could then be used to expand its programs towards the poor or to subsidize the basic services that the latter now consume from the private sector.

To conclude this section, it remains to be said that the data analyzed in the preceding pages show an underutilization of health services by the poorest groups. While it is true that this may be partially explained by lack of resources, other factors intervene as well, although they are still not fully understood. This suggests that the mere fact of increasing available services will not necessarily modify existing patterns. Consequently, this area requires additional research.

### **How to Improve Basic Information**

The implementation of health reform needs to be supervised closely by the authorities, in order to detect early any potential problems and to evaluate the results of new policies. To this end, adequate information systems have to be installed and systematic studies of the supply, demand and financing of services have to be conducted. Several considerations regarding the areas contained in this paper are presented hereafter.

The analysis of data produced by the Morbidity, Utilization and Health Expenditure Module of ENDESA-96 allows to draw certain lessons for future study of family health financing in the Dominican Republic.

First, it is essential to define the minimum indispensable tabulations for such a study, if permanent updating of the National Health Accounts is to be achieved. They are as follows:

- Utilization of health services per type of service (preventive, ambulatory, dental and hospital) and per: (a) provider; (b) gender; (c) age; (d) zone; (e) region; (f) deciles and quintiles of monthly income.
- Declared household income, per source.
- Monthly household expenditure, measured on the basis of a simple budget that includes the main items of expenditure as determined in the National Income and Expense Survey conducted by the Central Bank of the Dominican Republic.
- Health expenditure per type of service: preventive; ambulatory; dental and hospital. All this, according to the variables indicated under the first point.
- Breakdown of ambulatory expenditure in its different components: (a) medications;
- (b) laboratory and other diagnostic means; (c) consultations; (d) transport; (e) others.

- Form of payment of health services.
- Insurance coverage per type of insurance.

The survey analyzed in this paper did not include the third point, i.e. an estimate of family expenses. The reason was to reduce the size of the questionnaire, as it had to be administered in addition to the main questionnaires of ENDESA. However, experience has shown that in a survey of this kind, estimated family expenses constitute the best proxy for family income. Thus, the amount spent on health is compared with total household expenditure, in order to estimate the financial burden. When this same exercise is done on the basis of declared income value, there are more possibilities to overestimate this burden.

A third important point is to achieve consistency between the health expenditure study and the corresponding figures in the National Income and Expense Survey. This instrument is the most adequate to study both family income and expenses, but in the country it has not been implemented on a regular basis. At present, the Central Bank is completing the collection and processing of data of this survey, which constitutes an opportunity to revise the results of the present module, the methodology of the survey and the questionnaire itself. This survey will allow to update the National Health Accounts for the years 1997 and 1998.

The questionnaire of the next survey on health expenses will have to include these revisions, so that its application may be an update of the National Income and Expense Survey. Thus, the elaboration of the National Health Accounts by the Central Bank would become a permanent exercise, with the inclusion of private sector financing.

A fourth point is related to field work. From conversations held with the team in charge of this task, it was noted that it took too long to administer the health expenditure questionnaire to the same households that responded to the ENDESA survey. Better results might be obtained if the health expenditure survey were administered to the "household next door".<sup>26</sup>

It should be pointed out that the Morbidity, Utilization and Health Expenditure Module included in ENDESA-96 fulfilled its task of estimating behavioral patterns of Dominican families when confronted with health problems, as well as the expenses they incurred in for different items and with different providing institutions. Also, in the country, ENDESA has already become a regular event that takes place every five years, so that its administration constitutes an opportunity to obtain new information on the health services market.

A fifth point concerns the size of the sample. Many of the results obtained did not allow for regional analysis. Hospitalization data, e.g. -- relatively few cases -- could not always be analyzed adequately in relation to other variables. Consequently, it is recommended that this matter should be reviewed and to consider the possibility of using the same sample size as ENDESA's, but applying it -- as suggested already -- to the household next door.

A last point deals with the international comparability of the information obtained. Given the fact that it is, usually, USAID that finances the demographic and health surveys, and as this institution has supported other national and international initiatives to study health financing, it would be important to invest some additional resources to make sure that the data produced in each country are comparable. In this regard, the following would be important:

---

<sup>26</sup> This was a suggestion of Edilberto Loaiza, of Macro International, when the launching of ENDESA-96 was being prepared, but it was not accepted.

- To perform a revision of household surveys that exist in Latin America, both those studying income and expenditure and those specifically surveying health expenses.
- To aim for international comparability of future surveys, through the adoption of similar definitions, especially regarding the following: (a) definition of the types of services (what is included in each and the date when the question is asked); (b) composition of ambulatory expenses. In the latter, medication expenses are particularly important, as they seem to be the main component of ambulatory expenditure. In certain countries, this item is added to other types of expenditure and it is not possible to analyze it separately.

In order to reach these objectives, the best option would be to apply the same questionnaire to all countries, or at least, to ensure a minimum of questions common to all. This would be possible through coordination among governments and external cooperation agencies, as they are supporting health reform in a majority of countries.

It would also be important to promote the adoption of a single methodology to elaborate the National Health Accounts, a process that has already been launched as a pilot plan. This would allow, subsequently, to have comprehensive and consistent national studies available on health financing, both public and private, which would, moreover, present the advantage of being comparable internationally.

## **EPILOGUE**

The reflections throughout this paper lead to the conclusion that the country is far from reaching acceptable levels in terms of the health situation of its population, equitable access to the sanitary system by all inhabitants and, even less, regarding the individual well-being of each Dominican. These justify the need for a reform, with an integral perspective focused on the human beings who are the users of any health system and the consumers of their services.

Similarly, it should be clear that health is both an end and a means to reach sustainable present and future human development. This reiterates the fundamental fact that human beings -- both those of the present and of future generations -- are at the center of the economic and social policies. This necessarily implies that theoretical reasoning, policy guidelines and executive action have to be inspired by ethical beliefs and values of a higher order that transcend the requirements of material progress.

To conclude, social sciences, and particularly, economics and politics have to be grounded, today more than ever, on a new value system able to orient the efforts towards development. Profit and selfishness -- necessary engines of capitalism, as Keynes would say -- are not sufficiently motivating to eradicate poverty.

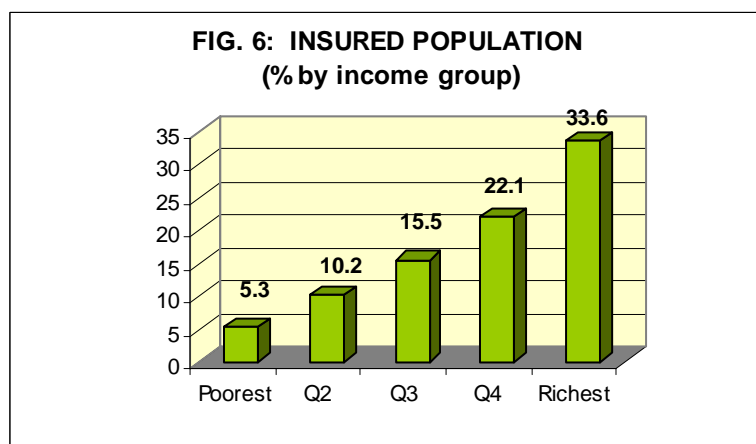
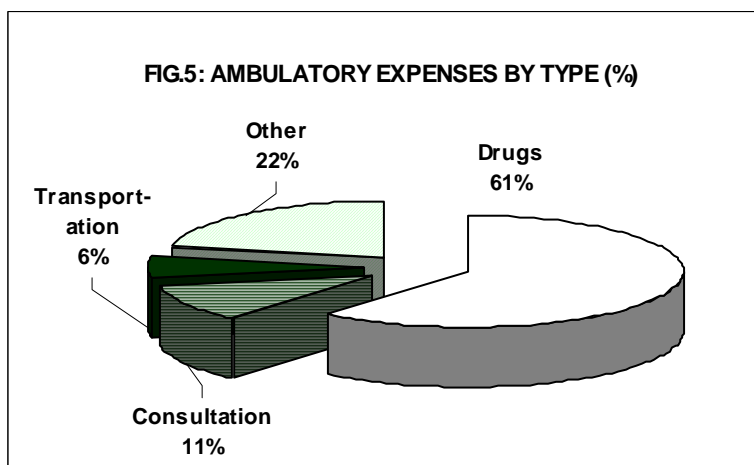
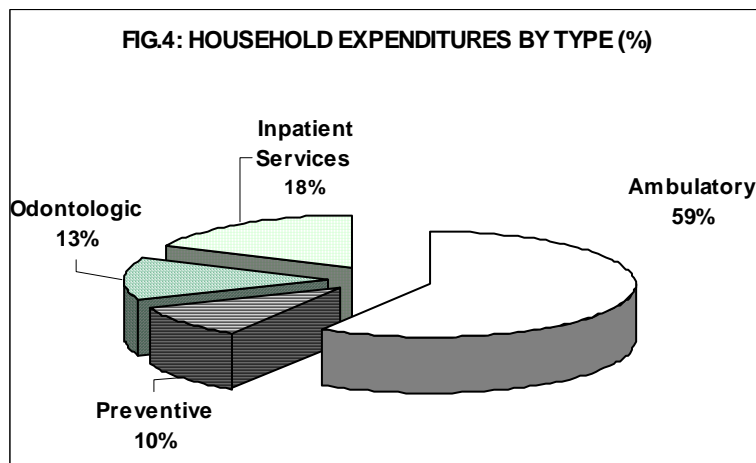
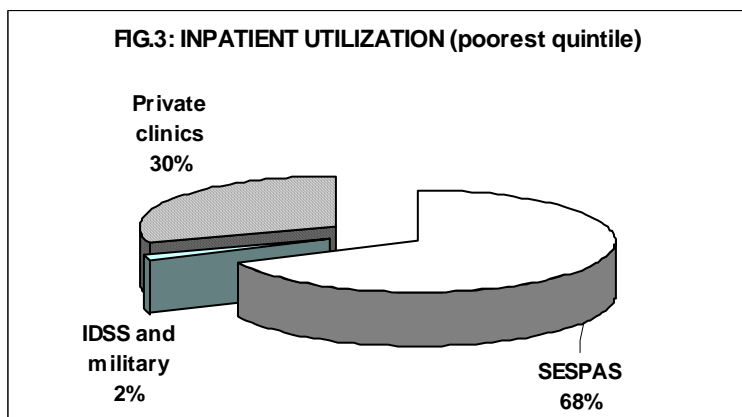
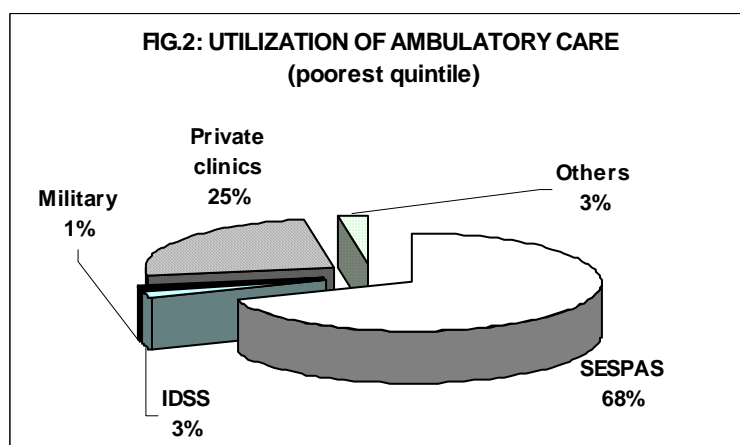
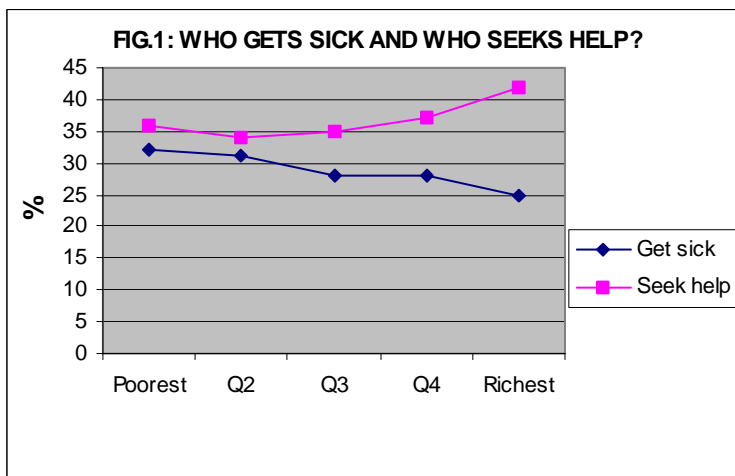
The world today needs other values, such as an awareness of human needs, a spirit of service, an altruistic attitude and a genuine aspiration for peace. It is necessary that the leaders of society represent these values, in order to build an equitable society -- focused on the people of today and of tomorrow -- which will enable all to develop their true potential, both materially and spiritually.

Table 1

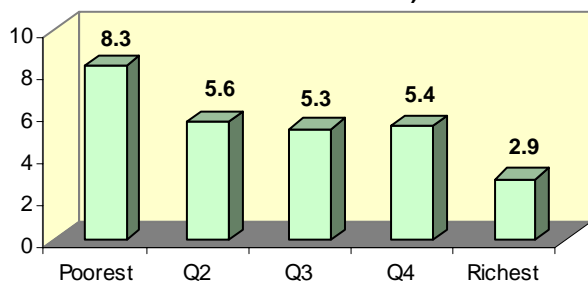
**AVAILABILITY OF DOCTORS AND NURSES IN LATIN-AMERICAN SELECTED COUNTRIES, 1992**

Countries	Doctors / 10,000 h.	Nurses/ 10,000
Haití	1.6	1.3
Bolivia	5.1	2.5
Perú	7.3	4.9
<b>Dominican Rep.. 1992</b>	<b>7.7</b>	<b>2.0</b>
<b>1997</b>	<b>15.0</b>	<b>3.0</b>
Nicaragua	8.2	5.6
Honduras	8.6	2.6
Guatemala	9.0	3.0
El Salvador	9.1	3.8
México	10.7	4.0
Chile	10.8	4.2
Costa Rica	12.6	9.5
Venezuela	19.4	7.7
Argentina	26.8	5.4

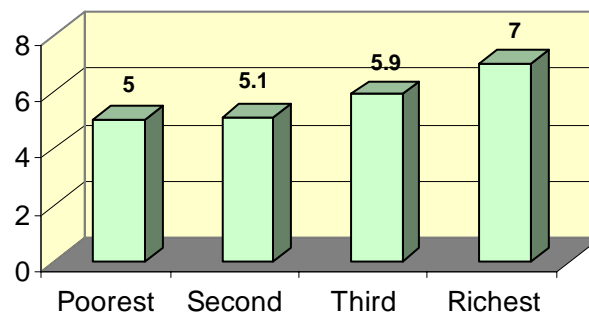
SOURCE: PAHO, Basic Indicators (from Honduras ¿cómo lograr salud para todos?, World Bank, 1998). PAHO/SESPAS/ CERSS, Perfil de los servicios de salud, Santo Domingo, 1998.



**FIG.7: FINANCIAL BURDEN OF HEALTH EXPENSES (% of household income)**



**FIG.8: FINANCIAL BURDEN OF HEALTH EXPENSES IN L.A.**



FUENTE: OPS, "National Health expenditure and Financing". 1995.

Table 2

**HEALTH EXPENDITURES BY WORLD REGION,**

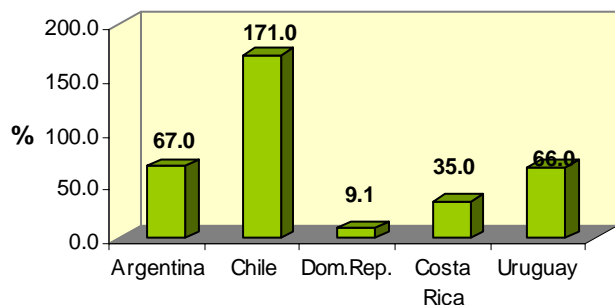
World Region	GDP percapita US\$	NHE percapita US\$	NHE as GDP %	Public finance as % NHE
Asian East and Pacific (incl.China)	1,196	46	3.9	53
East Europe and Central Asia	1,858	131	6.3	69
Latin-América and the Caribbean	3,138	372	6	56
Dominican Republic (1996)	1,730	112	6.5	24
Middle East and North Africa	2,783	273	4.6	53
South Asia (incl. India)	440	58	3.5	44
Africa South Sahara	811	88	4.1	51
Established market economies (1)	21,968	1,777	8.3	77
Income groups (2)				
Low income	416	62	4.1	49
Average income	2,785	321	5.5	59
High income	18,659	1,518	6.8	66

(1) ODCE countries, excluding Hungary, Mexico and Turkey.

(2) Income groups based on 1995 per capita GDP, Low income: less than US\$765; Average: \$766-9,385; High: \$9,386- and moore.

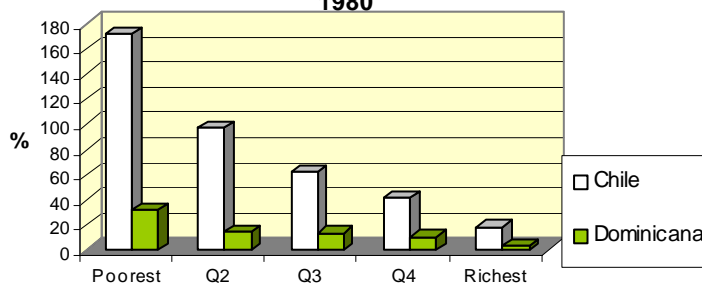
SOURCE: World Bank, 1997. Data on the D.R. from Central Bank, NHA, 1996.

**FIG.9: PUBLIC SUBSIDY EFFECT ON HOUSEHOLD INCOME, 1980 (% of total income of the poorest group)**



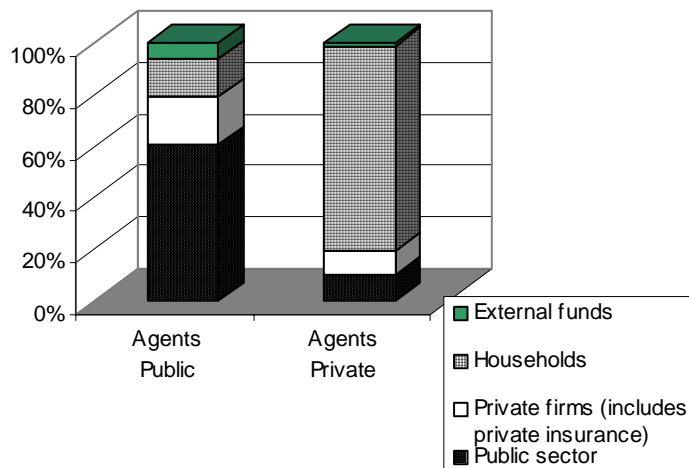
SOURCE: Petrei, H., The distributive effect of public expenditure, ECIEL, Brasil, 1987.

**FIG.10: PUBLIC SUBSIDY EFFECT ON HOUSEHOLD INCOME IN CHILE AND D.R., BY INCOME GROUP, 1980**

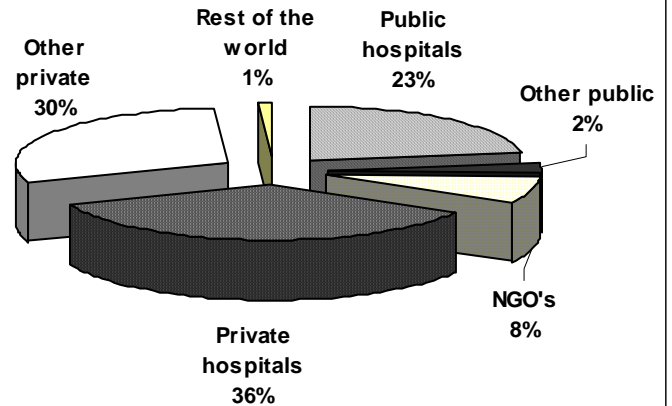


FUENTE: Petrei, A. H., op. Cit. (1987).

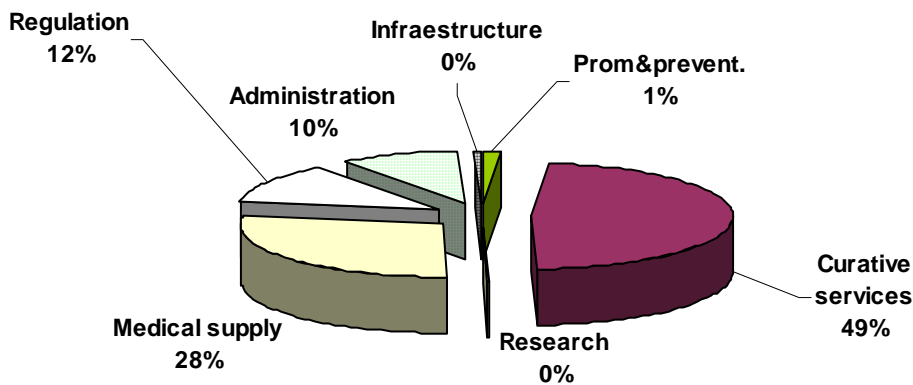
**FIG.11: INCOME FLOW ORIGIN OF FINANCIAL AGENTS, 1996**



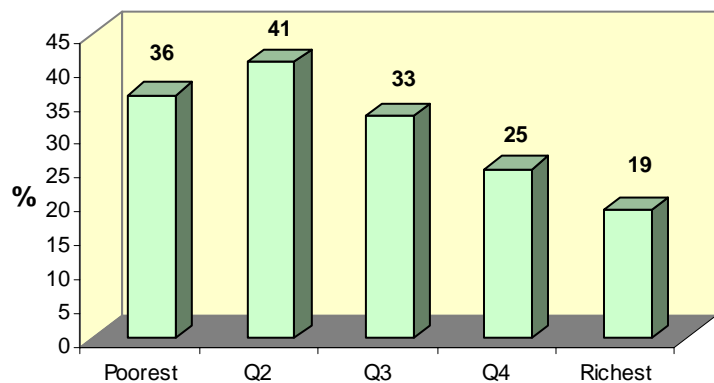
**FIG.12: HEALTH EXPENSES BY PROVIDER, 1996**



**FIG.13: HEALTH EXPENSES BY FUNCTION, 1996**



**FIG.14: PUBLIC PERCAPITA SUBSIDY AS % OF TOTAL HOUSEHOLD HEALTH EXPENSES**



## REFERENCES

Banco Central de la República Dominicana, **Cuentas Nacionales de Salud**, Informe Metodológico, (1995).

Banco Mundial, **Honduras, ¿cómo lograr salud para todos? - Acceso, eficiencia y equidad en el sector salud de Honduras**, 1998.

Berman, Peter **Health Sector Reform in Developing Countries, Making Health Development Sustainable**, Distributed by Harvard University Press, Boston, Massachusetts, (1995).

Berman, Peter, **National Accounts in Developing Countries: appropriate methods and recent applications**, Harvard University Press, Massachusetts, 1996.

Bitrán, R., McInnes, K., **The demand for health care in Latin América: Lessons from the Dominican Republic and El Salvador**, Economic Development Institute, The World Bank, EDI Seminar Paper No. 46, (1993).

Bitrán, Ricardo, **Análisis de impacto financiero y fiscal**, Modernización y Reestructuración del Sector Salud República Dominicana, Informe final de consultoría OCT-CNS, Santo Domingo, (1997).

Ceara Hatton, Miguel **El Financiamiento público al Sistema de Salud en la República Dominicana**, Centro de Investigación Económica para el Caribe, CIECA. (Informe de consultoría OCT-CNS).

CEPAL, **Panorama Social de América latina**, Naciones Unidas, (1998).

CESDEM, PROFAMILIA, ONAPLAN, Macro International, **Encuesta Demográfica y de la Salud (ENDESA)**, Santo Domingo, (1997).

Elke Meldau, **Benefit Incidence – Public Health Expenditure and Income Distribution: a case study of Colombia**, The Christopher Publishing House, Mass., 1980.

Foxley, Alejandro, et al, **La Distribución de la carga tributaria**, CIEPLAN, Chile, 1977.

George Schieber and Akiko Maeda, **A Curmudgeon's Guide to Financing Health Care in Developing Countries, in Innovations in health care financing**, The World Bank, (1997).

Guzmán, Rolando, Lizardo, M.M., Rivera, E. **Estructura Económica, Funcional y Regional del Gasto Público Social en la República Dominicana, (1978-1997)**, ONAPLAN, Santo Domingo, 1998.

Hausmann, Ricardo, Rigobon, R. **Gasto Público y Distribución del Ingreso en América Latina**, IESA, Venezuela, (1993).

Henderson, Pamela, **Gastos familiares de salud en América Latina y el Caribe**, OPS, Programa de Políticas de Salud, Washington, (1994).

Hsiao, William, **Abnormal economics in the health sector**, publicado dentro del libro de P. Berman, Health Sector Reform in Developing Countries: making health development sustainable, Harvard University Press, (1995).

Inter-American Development Bank, **Economic and Social Progress in Latin America, "Making Social Services Work"**, 1996 Report, Washington, D.C., (1996).

Kotlikoff, L y L. Summers, **Tax Incidence**, en Auerbach y Feldstein, Handbook of Public economics, North Holland.

La Forgia, Gerard, Gómez, C., Molina, M., Duarte, I., **Los servicios de salud en el Distrito Nacional por sectores, 1987: organización, cobertura, financiamiento y utilización**, Población y Desarrollo, Boletín No. 22, IEPD – PROFAMILIA, (1998).

Mann, A.J. **La carga de las contribuciones y los beneficios de los gastos públicos, Puerto Rico**, Universidad de Mayagüez, 1973.

Oficina de Coordinación Técnica (OCT-CNS), **Salud: Visión de Futuro**, Elemento para un Acuerdo nacional, Santo Domingo, República Dominicana, (1996).

OPS, **National Health Expenditures and Financing**, Washington, DC., 1995.

OPS/SESPAS/CERSS, **Perfil del sistema de servicios de salud de la R.D.**, Santo Domingo, 1998.

Petrei, A. Humberto, **El Gasto público social y sus efectos distributivos**, ECIEL, Brasil, 1987.

Proyecto RD-BID, **Modernización y reforma del sector salud**, (DR-0078).

Rathe, Magdalena, Santana Isidoro, **El Impacto Distributivo de la Gestión Fiscal en la República Dominicana**, Ediciones de la Fundación Siglo 21, Santo Domingo (1992).

Rathe, Magdalena, **Cuentas Nacionales de Salud, un Análisis del Financiamiento del Sistema de Salud de la República Dominicana**, Informe final de consultoría, OPS, (1998).

Rathe, Magdalena, Santana, Isidoro, **Reforma Social, una Agenda para Combatir la Pobreza**, Ediciones de la Fundación siglo 21, Santo Domingo (1993).

Ravindra Rannan-Eliya, Claudia Blanco-Vidal and A.K. Nandakumar, **Equity in the delivery of health care in Egypt: An analysis using a National Health Accounts framework**.

Rodríguez Grossi, J. **La distribución del ingreso y el gasto social en Chile**, Ilades, Chile, 1983.

Santana, Isidoro, **Distribución del ingreso y pobreza en la sociedad dominicana, tendencias recientes**, Fundación Siglo 21, Santo Domingo, (1998).

Selowsky, Marcelo, **Who benefits from government expenditures – a case study of Colombia**, Oxford University Press, 1979.

SESPAS - Fundación Siglo 21, ESU-96, **Utilización de Servicios de Salud y Satisfacción de los Usuarios**, Santo Domingo, (1996).

The World Bank, **Word Development Indicators**, Washington, D.C. (1998).

Thurow, Lester, **Head to head**, William Morrow and Company, Inc. New York, 1992.