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Keywords
Financing, health#. Decentralization#. Health care reform#. Health system, organization and administration. Health resources, economics. Health care rationing. – Financial indicators. Health financing.

Abstract

Objective
The results of an evaluative longitudinal study, which identified the effects of health care decentralization on health financing in Mexico, Nicaragua and Peru are presented in this article.
Methods
The methodology had two main phases. In the first, secondary sources of data and documents were analyzed with the following variables: type of decentralization implemented, source of financing, funds for financing, providers, final use of resources, mechanisms for resource allocation. In the second phase, primary data were collected by a survey of key personnel in the health sector.
Results
Results of the comparative analysis are presented, showing the changes implemented in the three countries, as well as the strengths and weaknesses of each country in matters of financing and decentralization.
Conclusions
The main financing changes implemented and quantitative trends with respect to the five financing indicators are presented as a methodological tool to implement corrections and adjustments in health financing.

Descritores
Financiamento da saúde#. Descentralização#. Reforma dos serviços de sáude#. Sistemas de saúde, organização e administração. Recursos em sáude, economia. Dotação de recursos para cuidados de saúde. – Indicadores de financiamento.

Resumo

Objetivo
São apresentados os resultados de um estudo longitudinal com o objetivo de identificar os efeitos da descentralização nas políticas de financiamento em três países da América Latina: México, Nicarágua e Peru.
Métodos
A metodologia teve duas fases principais. Na primeira, foram analisadas as fontes de dados secundários, referentes às seguintes variáveis: tipo de descentralização implementada, fontes de financiamento, provedores de serviços, mecanismos de alocação de recursos e destino final de recursos. Na segunda fase, foram analisadas as fontes de dados primários obtidos por meio de entrevistas diretas com pessoal-chave do setor de saúde, tomando como guia as mesmas variáveis da primeira etapa.

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Resultados
Os resultados identificaram as fortalezas e as debilidades de cada país em matéria de políticas de financiamento e de descentralização.
Conclusões
As principais mudanças no financiamento, assim como as tendências quantitativas dos cinco indicadores de financiamento utilizados, são apresentadas como instrumento metodológico para implementar correções e ajustes do financiamento em saúde.

INTRODUCTION

The relationship between decentralization and financial changes in the process of health care reform for Latin American countries is complex. Analysis of recent attempts at decentralization and financial changes requires an understanding of the contradictory forces at work within the political systems, and particularly the bureaucracies of Latin American countries, in which strong centralizing tendencies coexist with particular forms of bureaucratic decentralization.[5] The form and degree of decentralization are strongly influenced by the dynamics financial aspects, including sources of financing, agents, providers, final destination, and mechanisms of fund allocation at local, regional and national levels.

Local governments usually have authority to levy taxes. However, in a developing country setting, the great majority of national revenues often come from indirect taxes, especially customs and excise revenues, and buoyant local sources of revenue are hard to find.[2,11] The local governments are often by necessity heavily dependent on grants from the central government. In addition, Latin American governments often retain central control over finance to promote geographical equity. With respect to sources of financing, local governments may not differ significantly from the local offices of central ministries, though the way the grant is transferred is likely to differ.[3,17]

Latin American countries, and particularly countries like Mexico, Nicaragua, and Peru, have tried to decentralize their health care systems in different ways. The results are highly related to changes in mechanisms for financial resource allocation, and especially to the new financing dynamics for health services in the context of health care reform (Appendix A). The financial study of health care decentralization quantifies the amounts of resources involved and analyzes the sector's dynamics, its opportunities and sufficiency. At the same time, it intends to mobilize and reassign resources within the system at national and regional levels.[3] The financial changes for decentralization have been done according to current health financing aspects. For Latin American countries, public treasury funds are the main source of financing for central and local government health spending. In addition, compulsory contributions of employers and employees to social security systems or health and welfare funds are the major sources of financing for the expenditure of social security health care.[9]

On the other hand, both centralizing financial authority and decentralizing administrative authority tendencies coexist in the health systems of Latin American countries.[4,14] In a complicated and often seemingly confused manner, these tendencies combine and conflict with one another, with the centralizing tendency remaining unquestionably dominant. However, this tendency results in the overconcentration of decision-making at the top of the hierarchical structure and in turn generates decentralizing efforts aimed at decongesting the overloaded apexes of decision-making within central ministries of health. In this environment, the possibilities for the devolution of financial power from central bureaucratic agencies to local health units are not very favorable.[20,22]

In this sense, any financial issue for health care decentralization is related to the new financial authority and local level control of financing sources, funds for financing and new mechanisms for resource allocation and final destination of financial resources. The financial aspects of health care decentralization include the analysis of several financial indicators (Appendix B) to understand the changes in financing policies for health care reform.[15] The financial indicators, particularly, sources of financing and funds of financing, also include several categories of analysis (see Appendix B). The most commonly used conceptual framework of the dynamic financial aspects of health includes the definition of health expenditure on activities whose primary purpose is health improvement.[23]

Recently, a new and more appropriate method used to analyze financial dynamics in health care, with recent applications for developing countries, was identified and is called National Health Accounts. The core concept of National Health Accounts is defining the flow of funds. Experience in applying this concept in developing countries suggests that approaches used in countries like the U.S. should be adapted to the specific needs of developing countries, as well as to the more limited data available, and according to the research questions. This requires modifying definitions

of both sources and uses.[6] One approach, used in Egypt, Mexico, and Colombia, is to formulate the flow of funds in terms of three levels: sources of financing, financing funds, and health care providers.[12]

The objective of the present study is to analyze the financial aspects of health care decentralization, and for that there were added two more levels: the final destination or financial resources utilization for different health programs and the mechanisms for financial resource allocation. Therefore, there are five indicators to analyze and understand the effects of health care decentralization on health financing: the financing sources; the financing fund; the health service provider institutions; mechanisms for resource allocation; and final destination of resources.

METHODS

The study follows an evaluative longitudinal design with a comparative approach. Three countries, Mexico, Nicaragua, and Peru were selected, considering as basic technical criteria the following: a decentralization background, changes in financing policies, and a system of national accounts in health. Through discussions with key personnel in each country, information sources and personnel to be interviewed were selected to carry out the study. A fieldwork coordinator was identified for each country and the fieldwork strategy was standardized, as well as the instruments to be used. In the electronic search, 117 references were identified for documents published in the three countries. On the other hand, as a result of the indicator of documents not yet published documents, based on information given by key informants, 26 documents not yet published were identified. A total of 143 information sources were selected for data collection.

Both the interviews and the bibliographical search had 8 formats as a guideline, designed according to the health systems in the Latin American countries and health financial aspects. For the analysis of information validity, an exercise in internal and external validity of the selected indicators was done. The reliability analysis was carried out, repeating the interview in 10% of the cases in each country. To compare results with validity, like in any comparative study of health expenditure, US dollars were used as unit of standardization of financial amounts in all three countries. In this sense, all financial amounts were converted into US dollars, translating according to each country's national currency to the period 1992-1996. To analyze the changes in financing indicators, before and after decentralization, the period of analysis was 1992-1996, and 1994 was taken as the cutting point for the analysis. This decision was based on the following criteria: (a) the decentralization process began before 1994; (b) decentralization is still in process and may be considered as an implementation strategy to be consolidated during the next years; (c) information sources on financing matters are not considered valid before 1990-1992; (d) in 1994, relevant changes took place in each country to continue and emphasize the decentralization process.

RESULTS

With respect to the comparative analysis of changes in financing policies in the three countries, Table 1 includes, as a summary, the strengths and weaknesses found in the analysis of financing indicators, which resulted after decentralization (sources, funds, providers, final destination of resources). As showed in Table 1, advantages in each country were the changes in financing indicators, which go from the integration of economic information bases, to the implementation of new financing mechanisms, and the creation of new financing sources and new financial control mechanisms. The main weaknesses are given by the high dependency that the three countries have on central level financing and, therefore, on the negative effect of macroeconomic variables on financing at state and municipal levels. These results are analyzed in greater detail in the following section at the time of interpretation of the findings in trends for the 1992–1996 period, for each one of the financing indicators.

Expenditure trends in health, according to financing sources (Appendix B), before and after decentralization (taking 1994 as a baseline), may be observed in Table 2. It is important to emphasize that financing sources represent the origin of financial amounts and the different categories of analysis used in all three countries were:

- Households: monetary aportations directly from the family incomes;
- Enterprises: monetary aportations directly from the employers;
- Federal government: monetary aportations from the federal taxes;
- State government: monetary aportations from the local taxes;
- Government-taxes: monetary aportations from the federal and local taxes;
- Government-credits: monetary aportations from credits with international banks via federal government;
- Government-donation: monetary aportations from donations of international agencies via federal or local government;
- Donations: monetary aportations directly from donations of international and national NGO (Non Governmental Organization).

Table 1 – Strengths and weakness of health financing policies after health care decentralization.

Country	Variable	Strengths	Weaknesses
Mexico		-Financial devolution in all items. -Funds and financing sources under shared responsibility, between national, state and municipal levels. -New financing sources and alternatives at the state and county levels, with community participation. -A relatively high contribution from homes for the financing of health programs. -Negotiation of subsidies at local and central levels. -State and county government responsibility in the allocation, use and control of financial resources. -Consolidation of a health cost recovery system with differentiated charges according to the annual state, county and family percapita income.	-Absence of a culture of economic efficiency in financing. -Few human resources at the state-county level with the required abilities for financial decentralization management. -Low promotion and evaluation of new financing mechanisms at the local level. -Confusion, at the county level, in decision-making for financial resource management. -Absence of the private sector in budget allocation and administration boards. -Absence of technical criteria for the allocation of financial resources.
Nicaragua		-Financing deconcentration in the human resources item, and some goods and basic services. -Implementation of new methods and financial allocation mechanisms based on a percapita that is corrected with local health indicators, as well as demand and suply. -Implementation of a national accounting system and financing control for decentralization. -Implementation of a new budgetary decentralization system, with a new programmatic structure. -Development of a proposal to put into practice pilot studies for new sources and financing funds at the departmental and county levels.	-Deconcentration of financial resources practically limited to human resource. -No financial alternative has been consolidated in the production of local services. -Scarce deconcentration of decision-making power on the use and allocation of financial resources; local levels depend on the central level. -Absence of human resources to effectively implement the accounting and budgetary decentralization system in counties. -Low contribution of homes to health expenditures. -High financial dependency on external cooperation, on loans as well as donations.
Peru		-Direct devolution of financing from MIFIN to the regions, without passing through MINSA. Local decision-making power. -Identification of possible financing sources for the economic feasibility of decentralization. -To implement new control and financial negotiation mechanisms, at the regional, departmental and municipality levels. -Implementation of transitory boards for the control and follow-up of budgetary decentralization. -Implementation of local financial administration boards, with participation from the private sector and local leaders proposed by the community. -Creation and implementation of the office of health financing, to support the decentralization process. -High participation of the contribution from homes as sources of financing for health.	-Financial alternatives for decentralization were identifies but have not been implemented, there are only attempts. -The financial decision-making power is still centralized. -High risk that the CLAS and transitory boards will bureaucratize the budgetary decentralization. -Confusion and backwardness with the new decentralization law. It sets forth the devolution of financial resources at the central level and restatement the new policies for health financing. -Absence of a financial resource allocation mechanism which, under technical standardized criteria can be adecuate to each region. -Conflict between the MINSA and the MIFIN to restate the financing policies in the context of the new decentralization law. This conflict also appear bettween national, regional, state and municipal levels.

At first glance, it is interesting to see that in the three countries, as of 1994, there was a significant change in all financing sources and in the total expenditures as a whole. Actually, in the case of Mexico, there was an abrupt fall in total financing, which tended to recover by 1996, though not up to 1994 levels, with a significant decrease in the contribution of homes and businesses regarding total expenditures.

Federal as well as state government contributions show a positive trend. It is important to emphasize this trend in the case of Mexico, since state government contributions are an important financing source for decentralization, particularly now when one of the health reform strategies is to retake and consolidate decentralization in the rest of the states where it had been suspended or has not begun. In the case of Nicaragua, there was a slight fall in total expenditures in 1994, which tended to recover by 1995. An important fact in this country was the reactivation of social security and its relatively important participation in the total expenditure between 1994 and 1996. The contribution of donations remains practically at the same level, while the government contribution diminishes after 1994 and recovers in 1996.

In Peru, it is also seen a positive trend in health expenditures for the whole period and, as of 1994, contributions from homes increase significantly with respect to other sources; however, the proportion of their contribution regarding total expenditure shows a negative trend. On the other hand, businesses show increased contributions when compared to other sources, with a positive trend as a part of total expenditures. As to government sources in the three countries, there is a positive trend when compared to the other sources and to total expenditures.

It is necessary to mention that in Mexico the positive trend of the state government is much stronger than the positive trend of the federal government. As

Table 2 – Trends of health expenditure by sources of financing. Mexico, Nicaragua and Peru (millions of US dlls.).

Sources	Years	1992	1993	1994	1995	1996
México						
	Households	7,802	9,275	9,768	5,870	6,156
	Enterprises	4,890	5,362	5,639	3,053	3,015
	Federal Government	3,339	3,577	3,918	2,232	2,638
	State Government	47	228	577	586	753
	Total	16,078	18,442	19,902	11,741	12,562
Nicaragua						
	Households	nd	12	12	15	16
	Enterprises	nd	00	9	26	39
	Government-Taxes	nd	34	25	21	81
	Government-Credits	nd	31	24	20	20
	Government-Donations	nd	38	40	38	38
	Donations NGOs	nd	3	5	6	4
	Total	93	118	115	126	198
Peru						
	Households	1,247	822	890	690	942
	Enterprises	855	487	583	797	849
	Government	720	437	456	585	1,095
	Donations	18	13	22	28	20
	Total	2,840	1,759	1,951	2,100	2,906

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to contributions to financing coming from external cooperation, only in the case of Peru and Nicaragua is there a record of this information, due to its importance as a source of financing in the health system. There is no doubt that this is particularly important in the case of Nicaragua, where, although donations diminished in 1994, they remained more or less around the same average (30%) for the whole period under study. In the case of Peru, starting from 1994, external donations increased 100%, from 1% of the total expenditure to 2% after 1994.

Regarding the expenditure trends in health, according to the financing funds (Appendix B), Table 3 shows trends for the 1992–1996 period. Financing funds were grouped into those for the uninsured population, those for the insured and those for the private sector. It is important to emphasize that financing funds represent the final destination of financial amounts and the different categories of analysis used for this indicator were:

- Uninsured (G): amount of financial resources to produce health services in governmental institutions to people included out of the formal economy;
- Uninsured (NGO): amount of financial resources to produce health services in non-governmental institutions to people included out of the formal economy;
- Insured: amount of financial resources to produce health services in governmental and non-governmental institutions to people included in the formal economy;
- Private direct payment: amount of financial resources to produce health services in private institutions where people pay directly for the health services;
- Private indirect payment: amount of financial resources to produce health services in private institutions where people pay via health insurance the consumption of health services.

In Mexico, there was a decrease in all financing funds as of 1995. This decrease is explained by the economic devaluation in this country at the end of 1994. It is interesting to see that, in spite of a decrease in expenditures for each fund, there is a positive trend with signs of economic recovery, except for the private sector where, besides the decrease observed after 1994, the trend for this fund continues to be negative.

In Nicaragua, there is a very irregular trend, the record showing a slight fall in total expenditures in 1994 for all types of funds. Funds for the uninsured in this country started falling in 1994 and recovered in 1996; the exception was in funds for the uninsured who use the services provided by NGO's. Funds for social security were the only ones that maintained a positive trend during the whole period. Funds for the private sector also show a negative trend after 1994, which reverted in 1996 but did not reach 1994 levels. In Peru, compared to 1992, by 1994 there was a fall in all financing

Table 3 – Trends of health expenditure by funds of financing. México, Nicaragua and Peru (millions of Us dlls.).

Funds	Years	1992	1993	1994	1995	1996
Mexico						
	Uninsured	1,998	2,336	2,568	1,645	2,135
	Insured	7,216	7,824	8,473	4,931	5,151
	Private direct payment	383	459	514	353	252
	Private indirect payment	6,481	7,823	8,347	4,812	5,024
	Total	16,078	18,442	19,902	11,741	12,562
Nicaragua						
	Uninsured(G)	nd	101	75	77	145
	Uninsured(NGO)	nd	4	5	6	3
	Insured	nd	*	18	34	38
	Private	nd	13	17	9	12
	Total	93	118	115	126	198
Peru						
	Uninsured	710	447	498	639	1198
	Insured	1,006	605	764	748	715
	Private direct payment	821	554	563	587	839
	Private indirec payment	303	153	126	126	154
	Total	2,840	1,759	1,951	2,100	2,906

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funds, which recovered by 1996, but without reaching 1992 levels. The exception is funds for the insured population, which not only had a positive trend but also went beyond 1992 levels by more that 50%.

Regarding expenditure trends in health by provider type, there were not observed many differences compared to the analysis done for financing funds. It is interesting to notice that, in the case of Mexico, when grouping both funding mechanisms for private institutions, it is this type of provider who, by the end of the period, represents the greatest contribution to total expenditures, in spite of the negative trend that began in 1994.

In Nicaragua, the contribution for the uninsured increases more when grouping contributions for the uninsured with resources coming from the government and contributions for the uninsured with resources coming from donations to NGO's. In Peru, even when both funding mechanisms for the private sector are grouped, there are not significant changes regarding the proportion of the private sector expenditure as compared to the total expenditure; by the end of the period, public assistance still has the highest proportion, followed by private institutions and social security.

In relation to the final destination of resources, by expenditure item, there is a trend towards using greater resources for running expenses (mainly human resources), although there are significant differences in each country. For example, while in the case of Nicaragua, 3% is allocated to investment expenses, in Mexico this amount is 19% and in Peru it is 12%. Running expenses, in the case of Mexico, are 81%, in Nicaragua 97% and in Peru 88%. These policies are closely related to the financing and investment schemes in each country's economic plan. For example, while in Mexico a policy to increase investment has been proposed in the last decades, in Nicaragua this is a new policy appearing with the change in the political, economic and social system, which started in 1991.

DISCUSSION

In the first place, with respect to financing sources, the idea was set forth that one of the effects of decentralization was the redefinition of the structure of financing sources with relevant participation of local financing and particularly of state governments. This empirical expectation was fulfilled in the case of Mexico, mostly by the participation of state governments and user contributions at the local level. In Nicaragua and Peru, there are no records with official information on amounts from consumers paying for services. But according to results of interviews with key personnel, it is a fact that there are contributions from users although this is not very significant when compared to the total expenditure.

With respect to financing funds, financial changes that were expected as an effect of decentralization could generate decreases in economic amounts for the different funds (public assistance, social security and private institutions). In the three countries, it was possible to observe that in the middle of the analyzed period, and between 1993 and 1994, negative trends

in financial amounts were actually observed. In Mexico, negative trends were observed for the three types of funds (public assistance, social security and private services); for Nicaragua, negative trends were strong in public assistance, irregular in the private sector and null in social security; in this subsector, the opposite was observed, that is, positive trends.

In Peru, there were negative trends for all three subsectors. However, in the case of public assistance and the private sector, the trend turned positive by the end of the analyzed period (1996). These negative trends, besides being an effect of the restructuring of the health expenditure, have also had a secondary effect of two phenomena that are very present in the three countries: the behavior of the macroeconomic variables in the public as well as in the private sector, and the loss of the consumers' buying power in all three subsectors.

At the provider level, the effects of financing changes stemming from decentralization forced the different providers to develop and implement new methods for the monitoring and evaluation of the use of resources. This was observed in the three countries, although it was in Nicaragua and Peru where changes had a greater significance. In Nicaragua, the implementation of a financial accounting and planning system at the local level, with national coordination, was the response to the budgetary decentralization. In Peru, the response was the development and implementation of the local health administration boards, with participation from the private and public sectors in all activities involving planning, evaluation and monitoring of resources.

As an effect of decentralization in resource allocation methods, the idea was set forth that, stemming from decentralization, new financial allocation mechanisms would be implemented to respond to local health needs, which would have as a basis three criteria: attention level, type of disease and provider type. This empirical expectation was fulfilled with greater significance in Nicaragua. In this country, a new financial resource allocation mechanism was effectively developed and implemented with a method, which made adjustments between attention level, type of demand and provider type. In Peru, a new resource allocation method was also developed, based on the expected epidemiological profiles and the financial requirements for the short, medium and long terms. These new allocation mechanisms are in the process of being implemented and thus results are yet to come. In Mexico, although proposals have been developed to apply technical criteria to resource allocation, unfortunately, in practice, the factor that continues to determine resource allocation is the historical trend of the behavior of demand.

Regarding the final use of resources, the plan was that, with decentralization, policy makers at the local level would design and implement new methods to achieve greater equity and efficiency in the use of resources according to identified local priorities stemming from two variables: the health systems' capability to produce services and the population's health needs. About the results of this expectation, it can be said that it was fulfilled in Nicaragua, through the design and implementation of a method for resource allocation and use, which has equity as its basic principle and, as its technical basis, the utilization of a per-capita factor corrected for each one of the country's departments.

Suggestions

1. Financial changes expected during decentralization present considerable advantages and disadvantages at a state level, depending on the relationship between the state per capita income (PCI) and the national per-capita income. For this reason, sums for the different priority groups at a state level may increase or decrease. In this sense, for states where the PCI is greater than the national mean, the regressive effect will be highly favorable; for states where the PCI is similar to the mean, the regressive effect will be favorable; and finally, for states where the PCI is lower than the mean, the regressive effect will be unfavorable. In this case, financial changes must be made more cautiously since one cannot decapitalize the health sector. For these reasons, among others, financial changes in the health sector must be made according to a combination of mechanisms or different decentralization schemes to have technical, political and financial feasibility in the decentralization scheme and in the financial capability of the different states. In other words, all financial authority cannot be returned to states that do not have the necessary resources for the maintenance of their present health programs.

2. In Mexico, considering the experience in the states where new financing alternatives have been made concrete, the recommendation is to promote with a greater emphasis the delegation of financial responsibility in the rest of the states where decentralization has been recently started and, above all, encourage the financial contribution of users and the participation of state and local governments in the financing of health programs. On the other hand, for all states, those that are already decentralized and those that are in process of doing so, the recommendation is to put into practice new mechanisms for the allocation of resources with epidemiological, organizational and economic criteria, in order to decrease the gap between health systems and the population's health needs at a local level. It would be necessary also to

incorporate personnel from the private sector into the local health boards, mostly in those groups that are responsible for monitoring and evaluating financial resources. In terms of equity, the recommendation is to apply a per capita index, corrected according to existing resources and health demands at the state and local levels.

3. In administrative-organizational and legal terms, the case of Nicaragua would seem the ideal case for follow-up and for financial changes stemming from decentralization, but in terms of financing, although the decentralization budget has been developed, financing is totally dependent on the central level. In this sense, the main recommendation would be directed towards redirecting the budgetary decentralization process, searching for the most feasible way to combine budgetary decentralization with a greater financial responsibility of local governments and of consumers in the health financing, going from a financing that is dependent on the central level to one that is shared with central, state, and local levels and with consumers. In this country, it is also recommended making adjustments of the proposed quota system, above all with respect to criteria for differential fees by sociodemographic variables.

4. In Peru, the situation is complicated; progress in decentralization with respect to changes in financing policies, even when not completely concrete, will apparently go backwards. The new decentralization policy, which has been set forth with the last resolution of Congress, has been recently approved as a law (1998). This new policy establishes a complete return to central level control, including decisions that were being made at a local level, and a redefining of financing changes and changes in health resource allocation mechanisms. Starting in 1998, the idea was set forth that the budgetary allocation that used to be done directly in the regions should now return to the central level and that, once again, the central level should be the one to decide financing management to rearrange the decentralization process. In this country, the recommendation is to take advantage of the restructuring of the present process to introduce the analysis model on financing indicators and the decision-making rule as tools for support.

Finally, it must be pointed out that, regarding financing policies, it is possible to integrate an ideal action pattern to be followed, which would depend on the context within each country. This combination of actions includes: first, to have an effective delegation or devolution of health financing, making sure that governments as well as consumers assume responsibility for the financing of health services at a local level, without a total dependence on central financing. In the second place, it is necessary to promote a culture of economic efficiency, which allows the training of human resources in economic evaluation techniques for health services and, particularly, in the use of an analytical model for financing indicators and the application of the decision-making rule proposed here, under the principles of equity and efficiency.

In the third place, it will be necessary to carry out actions (seminars or refreshment courses) so that decision-makers use more and more the results of economic evaluations of health services. In the fourth place, it is important to develop new mechanisms of financial allocation, which use epidemiological, organizational and economic criteria in an integral manner, according to the supply and demand of health services at a local level. In the fifth place, for all those countries where decentralization is carried out, it is recommended the application of a corrected per-capita index to monitor the allocation and final use of resources under a principle of equity and efficiency.

APPENDIX A

Meaning of health care decentralization in each country

In Mexico, this process rests on a strong legal basis, namely Article 4 of the Constitution. Decentralization is justified on at least the following grounds: (a) the need to organize a national health service to overcome the differences between the health services offered by the two social security institutions and those services provided to the general population not entitled to the benefits of the social security; (b) to strengthen the operational efficiency and management of health services at the level of the state governments; (c) to link planning of the health services more closely to overall national planning.

By 1986, the Ministry of Health had consolidated plans for the national health system. In accordance with the decentralization strategy, the individual state congresses have been encouraged to pass state health laws, and by 1987, 12 of 31 states making up the republic had done so. New legislation has also been enacted for the municipal level of government, in the form of proclamations that define the health responsibilities of the municipalities. In addition, various presidential decrees have been issued to implement decentralization. In August 1983, a decree was issued for a program to decentralize the Ministry of Health; in March 1984 another decree called for decentralization of the federal health services themselves. In June 1985 an amendment to the latter decree was issued, calling for the federal agencies to be disbanded as the health services are handed over the individual states.

By 1987 services had been handed over to 12 of the 31 states. In these states, there is health care for the people not covered by social security systems, which represent 42% of the population residing outside the Federal District. These 12 states contain one-third of all the primary care facilities available in the 31 states, half of the hospital beds, and 45% of the human resources for health sector. Implementation of decentralization in Mexico is still an ongoing process in some states, and discussing its outcomes in health is premature. The Ministry of Health aimed to reinforce the participation of the health sector within the COPLADES (state level planning committees) under the coordination of the state minister of health or, in still-centralized states, the federal delegate. The COPLADES were chosen as the most efficient way of linking resources to the priorities set through the state plans with the participation of representatives of the whole health sector and authorities at the federal, state and municipal levels.

In this context, budgetary resources have been reallocated in several ways. Although total federal government expenditure on health has been reduced, the proportion assigned to the health sector increased from 7.5% in 1982 to 8.6 in 1986. Financial resources on services for the uninsured population rose from 27% in 1983 to 33% in 1985. The financial resources to produce health services by the states has grown by an annual 20% in real terms during the period 1984-1986, while the central administrative units have seen theirs reduced by 19%. The states increased their own contribution for health financing by 280% between 1984 to 1985 and the social security institutes also increased the participation in the financing of public health activities.

While analyzing financial delegation in the decentralization of health services in Mexico, two constant factors set a common pattern between decentralized and centralized health service organization: the continuation of separate federal and state sources of finance – without the state meddling with the federal funds; and the maintenance of the federal labor relationship with all state health workers-right up to the director or minister of health. Thus, all decentralized state health services, whether called ministries, departments or institutes de facto became – from the point of view of finance and control – parastatal organisms of both the state and the federal governments.

Summarizing, the decentralization of health services in Mexico has been a process, which started ten years ago, first in half of the states in the country, and that now continues to be implemented in the rest of the states and counties. The case of Mexico is characterized by a pattern of devolution mixed with variants of administrative deconcentration. This pattern has also undergone drastic changes regarding health services financing.

In Nicaragua, up until 1991, the Health Ministry (MINSA) was organized by regional health departments, whose administrative structure had proportional similarity to the central level structure. This form of organization in the MINSA was being modified with the creation of the SILAIS (Local Integral Health Care Systems), according to Ministerial Resolutions n. 91 and 96 of February 1991 and January 1992. However, it wasn't until April 1992 that, in resolution n. 100, all regional organization was legally nullified.

In spite of this legal base of the new organizational form, administration of budget resources was still being done in a centralized manner, allocating funds in the same way as in previous years. SILAIS were established in 14 states of the country, 1 in the autonomous North Atlantic region, 1 in the Southern Atlantic region and 3 in the state of Managua, with a total of 19 SILAIS. Before, there were 6 regional health departments and 3 special zones. According to information collected from interviews with key functionaries in management positions, in 1987-89, there was a decentralization experience, which was characterized by the administrative decentralization of all resources in some regions, the fiscal budget was decentralized and financial resources were transferred from the Ministry of Finances to these regions.

The decentralization of the health system was conceived as a planned transfer process, planned, ordered and coordinated by the political, managerial and technical authorities, from the central level towards the SILAIS, to make optimal use of all existing resources, and integrate the local health boards as a directive agency in each decentralized unit. In this sense, the SILAIS' authorities plan health actions and execute the budget according to their local needs within the framework of the National Health Policy, while the MINSA's central level keeps the capability to regulate, monitor and evaluate the health process, thus preserving the system's unity. Since 1992, the MINSA started an agile budgeting decentralization process towards the SILAIS, as a way to facilitate the required processes for their interinstitutional and intersectorial relationship, as well as the technical collaboration needed to improve the system's development and efficiency.

Since 1993, budgetary decentralization meant that the SILAIS became the centers responsible and in charge of financial management, for the custody as well as the handling of financial resources and for the negotiation required in the execution of budgetary

credits. At the SILAIS level, local boards play an important role that is prominent in budget analysis, having a greater involvement in the search for financial alternatives and a greater efficiency at a local level. The financial decentralization process allowed for a definition of a new programmatic distribution of the total budget, 6% corresponding to central level activities and 94% to activities at a local level, with the following distribution: 5% for SILAIS coordination, 31% for first level attention, 40% for the second level, and 18% for activities not assigned to programs.

As of 1998, the implementation of the 1993-1997 program has been carried out for the decentralization of the "goods and services" categories. However, the budgeting for human resources and the purchase of medicines has not been totally decentralized. By the end of 1997, the lines of direct delivery included: human resources (59%); medicines (20%) and basic services (7%). According to the results of interviews with key personnel, in 1998 negotiations were under way and technical-operative guidelines were being established to transfer the greatest percentage of budgetary resources directly at the county level. The reason given for keeping a centralized mechanism for payments of several basic services is that the breach between the amount budgeted by the Ministry of Finances and the historic expenditures is too large for the SILAIS, reference hospitals and counties to be able to adjust, while the central level MINSA has a budgetary deficit to avoid paralyzing the services in the last months.

There is no doubt that decentralization has been one of the structural measures of greater dimension and depth impelled in the health reform process in Nicaragua. One consequence of this is the need to create an economic environment, which motivates the assistance rendering institutions to be more efficient and develop improvements in their health systems. Service decentralization and changes in resource allocation to those institutions from the SILAIS are precisely that incentive.

In Peru, the antecedent for decentralization goes back to the ministerial resolution of December 1985, where the legal framework was approved that oriented the health sector's actions to achieve decentralization of services through delegation of authority and responsibility to the most peripheral establishments at a local level.

In accordance with this health policy guideline, the basic organizational scheme implemented in 1986 considers the Health Areas (HA) as decentralized services, constituting basic work units whose jurisdictional scope, programmatic and budgetary nature, and organizational structure must be defined at the local level. During the 1986-1991 period, the initial proposal of the decentralization process was implemented with no adjustments, in-depth evaluation or restatement. In 1992, stemming from an exercise in decentralization evaluation, a restatement was made to the effect that the decentralization process should continue via regionalization, implying a substantive transformation of MINSA through the reordering, functional and organic redefinition of its decentralized branches so that health policies could be carried out.

In 1994, the MINSA implemented a novel system for decentralized negotiation in health centers and stands, with community participation. This decentralized system, within the shared administration's framework, allows for institutions and people from the community to organize themselves in non-profit civil associations, in the so-called Local Health Administration Committees (CLAS). The first 13 CLAS were installed in 1994 and presently, 548 function, managing 611 health establishments in the whole country. The MINSA's authority on the management of personnel and physical infrastructure (equipment, installations and buildings) is transferred to the CLAS when the contract is signed. The transfer of funds is carried out according to the program. The MINSA only executes the normative and control actions to guarantee the good use of resources.

In 1997, the Administration for the Negotiation of Agreements was formed. The starting point for this proposal was constituted by the health policy guidelines for 1995-2000. These guidelines set forth the restructuring of the health sector as a medium to develop the government's rectoring capability and to differentiate the financial functions in the production of services, developing new strategies, as well as financing and resource allocation methods, as a function of negotiation commitments and results. For this, five hospitals and five networks of health establishments at the national level were selected. Changes were introduced to incorporate technical criteria relevant to financial resource allocation. Funds allocated to the MINSA have as their most important particularity that some of these resources reach the national arena, as for example the funds destined to public health or the national health programs. In this case, the MINSA, according to its criteria and the sub-regions' needs, allocates funds to the different zones in the country.

In 1998, the decentralization framework was restated for all sectors in the public administration. The new legal framework set forth a rearrangement and a new organizational structure for local and regional coordination. The element added to the decentralization process was the creation of the Transitory Boards for Regional Administration (CTAR) in each of the country's departments, as decentral-

ized public organizations of the Ministry of the Presidency, with technical, budgetary and administrative autonomy in the execution of its functions. These Boards have as their goal the monitoring of the decentralization process, its evaluation and carrying out pertinent adjustments in the sectors or institutions where it is necessary.

Although it is explicit that the Regional and Subregional Directorships under the charge of the CTAR should be incorporated into their respective Ministries, as of April 1998, it was still not clear how this resolution would work in practice, since, from its theoretical outline, it proposes to centralize what had been decentralized to restate it in a more ordered, efficient and effective manner.

In this context of decentralization, the budget is figured with a programmatic structure, which involves the sector's objectives and priorities through the collection of budgetary proposals from the directors of national institutes, the MINSA and regions, depending on the different instances, which have been implemented to continue decentralization (CLAS, ZONADIS, HA and CTAR).

APPENDIX B

Definition of financial indicators and categories of analysis

1. *The financing sources*. These could be defined as the primary economic sources that provide the resources to the population for different activities. Depending on the origin of the economic amounts, there are four sources of financing, classified as internal and external. In the case of the health system, the internal sources consist of the government, the industry and households. The external ones refer to the exchange that takes place within the health sector, through multilateral or bilateral agencies.[19,16]

2. *The financing funds*. The financing funds are the reservoirs of economic sources, and their role is to administrate resources and buy medical services; these could be real or virtual funds. This is important since virtual funds can only be used in an individual basis, and they are in constant competition with the acquisition of other satisfactors.[13] They depend on individual preferences and could be drastically reduced at times when the income drops as a result of economic crisis and adjustment policies.

3. *The health service provider institutions*. The health service provider institutions are the governmental and non-governmental organizations providing health care services for the population. According to the source of finance and the consumers, the provider institutions are classified in three: social security, public assistance and the private sector.[1,8]

4. *Mechanisms for resource allocation.* The mechanisms for resource allocation in health expenditures include legal, political and technical principles as well as financing adjustments for health care decentralization.[7,18]

5. *Final destination of resources*. With the decentralization process, health policy makers at the local level must design and improve new and equitable ways for the final use of resources depending on local health priorities and according to two major variables: system variables (the supporting programs, the current expense factors and investment, and the health services to be produced), and population variables (including the type of services demanded at the local level: primary care, secondary care and third care).[10,21]

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