

**CHAPTER IV**  
**EVALUATION OF HEALTH INSURANCE**  
**AGENCIES AND PROGRAMS**



## CHAPTER IV

# EVALUATION OF HEALTH INSURANCE AGENCIES AND PROGRAMS

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### IV.1 Introduction

**W**hen compared to other governmental systems, the scope of a healthcare system is likely among the most extensive. Developing such a system entails far-reaching action that goes beyond that of creating a specialized bureaucracy in charge of producing a well-defined output. In a broad sense, the role of national governments includes regulating the system, organizing healthcare management and delivery, and executing public healthcare actions, all in order to attain the goals of the healthcare systems—improve health and attain equity, efficiency, and customer satisfaction.

How do we evaluate this complex mix of factors? Adding to this challenge is the fact that the relationships between institutions and citizens, between insurers and families, and between patients and physicians are complex. Problems of “adverse selection” and “moral hazard” have been recognized as challenges to be overcome when designing healthcare systems, agencies, and programs, and should be taken into account in the evaluation.

Evaluation depends on questions that are not easy to answer: How should the healthcare system be organized? Should it be vertically integrated, with hospitals and healthcare funds forming a single organization? Should it be horizontally integrated (i.e., should hospitals be autonomous or part of large conglomerates)? Should the government actively

participate in the financing, organization, and management of healthcare consumption and provision, or should these functions be left to private/non-for-profit parties? Is it necessary to create autonomous and specialized agencies for surveillance or should this task be performed by the judicial system? Why are there many healthcare programs that do not achieve ideal outcomes? Why do we see limited budgets and inefficient operations at the same time?

Previous CISS report (CISS 2007) presented a framework for disentangling the processes that constitute a healthcare system to facilitate addressing these questions. It is hoped that such an approach can help provide understanding that what is best for one country might not be an option for another. Similarly, such an approach can show that some policies that might have seemed misguided at first sight have proven to be successful. This lack of consensus, to some extent, is due to a poor history of evaluation. However, we may have to humbly accept that even when a country makes a strong effort to understand the issues, it faces significant limitations to measuring the actors’ behavior and results.

While national health authorities often invest resources in disease evaluation, it is less common for them to invest resources for evaluating healthcare services, such as determining hospital performance or client satisfaction. This can be explained, at least in part, by the fact that experimental designs to evaluate health system policies more rigorously are

difficult to organize both technically and politically (Murray and Evans 2003). However, this situation has already begun to change. Pressure from stakeholders, added to by citizens, is leading to the promotion of improved models. Many countries, pursuing greater accountability, have introduced some form of customer service or quality evaluation into their systems. Others have done the same for the sake of efficiency or because current technologies allow it at an affordable cost.

Evaluation is needed to verify that we are headed in the right direction. It tells us whether a certain policy actually functions so that we can make decisions about future courses of action. It provides data to help us determine whether a program should be terminated, continued as it is, or expanded. It can offer a constant flow of information relevant to the beneficiaries of the system, the agencies involved, the agency managers and regulators, and legislative bodies. It can provide ideas regarding how to reward success and avoid failure. Because most changes in healthcare systems are incremental, driven by experience and evidence—more so than by theory or ideology—evaluation has a critical role (Naylor, et al. 2002).

The challenge for effective evaluation of any policy is gaining understanding of the functioning of what is being implemented, defining the right objectives, analyzing relevant data to verify progress, and assessing effectiveness. The quality of the data collected for these processes is more important than is the quantity, a fundamental concept for any system, agency, or program specialized in healthcare, an area that has many variables.

This chapter aims to provide an overview of evaluation in social healthcare insurance for systems, programs, and agencies. The chapter is organized as follows: Section IV.2 describes the frameworks for evaluation, the methods for obtaining a thorough understanding of the programs and policies, and the manner in which objectives can be measured through the use of indicators. Section IV.3 explains the most common approaches and Section IV.4 describes the

multiple evaluation approaches used in the Americas. Finally, Section IV.5 concludes the chapter.

## IV.2 Framework of Healthcare Evaluation

Any framework of evaluation must start by identifying the goals of the systems, agencies, or programs. In the field of healthcare, the goals may relate to one or more of the following four issues: 1) improving health, 2) achieving horizontal and vertical equity, 3) attaining micro- and macro-level efficiency, and/or 4) improving user satisfaction.

Two important aspects must be understood when considering these goals. First, many refer specifically to healthcare systems. As such, overall measures are established to assess the whole system of a country (see OECD 2005; WB 2007b; WHO 2000). Nonetheless, it is important to distinguish among systems, agencies, and programs. Systems are collections of agencies and programs, and the appropriate evaluation tools must be used for each. While systems, agencies, and programs may share goals, an appropriate evaluation system recognizes that each needs its own metric.

Second, as has been explained in previous CISS reports (see CISS 2007 and CISS 2008a), it is very useful to identify three core functions that are performed in all healthcare systems: funding and allocation, organization and management of healthcare consumption (OMCC), and provision of services. These core functions can be performed by a vertically integrated agency in a centralized manner or by different agencies in a decentralized manner. Recognition of the three core functions is fundamental for evaluation because each must be evaluated in a particular way to gain a better understanding of the performance of agencies and their interactions.

Moreover, as was explained in Chapter II, evaluations can take a particular perspective, whether economic, actuarial, fiscal, OR, or administrative. These perspectives reflect alternative concerns, which translate into objects (indicators) for monitoring or evaluation or both. Each perspective uses different

tools from its own or other areas of research. For example, the administrative perspective focuses upon finding the right balance between strategic interventions and an agency's internal proficiency in order to satisfy clients and reach stated goals. In doing so, administrators focus upon finding indicators that can monitor progress toward the attainment of a set of targets. Administrators may sometimes assign a secondary role to the evaluation phase of a program or system, as they are more concerned with the internal changes in the agencies that can lead them to better internal performance. It is not that they are not concerned with the overall results but that their main goal is to do their jobs right.

Together with the goals, four central elements of evaluation should be understood. The first refers to the understanding of how the system, agency, or program works. For the evaluation of programs, this is sometimes referred to as the theory of the program, a map of how the system, agency, or program works and what objectives and tools it has to address the identified problems. In practical terms, this translates into tools that organize information and indicators, but it is more than a way to apply indicators within a tool. As we will see in the sections below, widely used tools have been developed according to this logic, one of which, that of strategy maps and their related balanced scorecards, have been developed especially to deal with the administrative perspective.

The second element is identifying the indicators that help monitor progress toward the goals. Broadly called performance indicators, these types of indicators are usually accompanied by the targets that they are supposed to reach. While generic goals are usually stated within laws or regulations, targets are defined less often. An agency's effectiveness is likely to be a function of its ability to define targets that are accepted by stakeholders and actual internal

possibilities to reach them. As it is unlikely that legislators or regulators will ever have more than a small fraction of the information available to an agency, effectiveness of a program or agency is based upon that mix that comes from providing trust to external parties and actually improving management.

The third element refers to identification of the sources of information. Broadly speaking, data can be obtained from administrative records or directly collected from surveys or interviews. In the area of healthcare, there is an interesting debate on the advantages and disadvantages of each of these sources. Finally, in the case of specific interventions through programs, an evaluation is desirable. Evaluation can be further divided into design, implementation, and impact evaluation,<sup>1</sup> which will be discussed in more detail in Section IV.3.

The evaluation, including the logical framework, indicators, data sources, and definitions of the aspects to be evaluated, should be agreed upon among all relevant stakeholders and, as the objective is to improve performance, a well-designed strategy for the disclosure of results should be set in place. In this regard, the order in which the system for monitoring and evaluation is developed is important. While a system of evaluation can be implemented at any time, it is desirable to have a well-developed system in place before changes in a system, agency, or program are implemented. It is important to develop the elements of the system in the following recommended order: 1) identify the participants in the design of the evaluation; 2) design the logic of the system, agency, or program; 3) define the indicators and targets; 4) identify the sources of information; 5) perform the evaluation; and 6) set an strategy for the disclosure of the results. While the order of these steps may appear obvious, it is, unfortunately, not always followed. Indeed, it is rare that the evaluation system of a new program is in

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<sup>1</sup> Cost-benefit analysis measures both inputs and outputs in monetary terms. Cost-effectiveness analysis estimates inputs in monetary terms and outcomes in non-monetary terms.

place before program implementation begins. Given the contemporary state of technology, it is recommended that whenever possible, evaluation, even for small or low-income countries, should be based upon individual data and analyzed using modern tools and methods.

#### **IV.2.1 Frameworks for Organizing Information**

It is not uncommon to find programs or agencies producing large amounts of information in the form of indicators that cannot be understood by the average user. The perceived need for evaluation has led many institutions to create indicators and contract out evaluations indiscriminately without an appraisal of the kind of information that the program truly needs to produce. This waste of resources often occurs because the program or agency is not thoroughly understood. This section addresses this issue by describing the most widely used tools, whose core objectives are to identify appropriate measures and present them in such a way that they can catalyze change.

The design and implementation of social policies can be complex in healthcare, where outcomes can be the product of many different factors. In this context, it is not clear which aspects of an intervention should be subject to evaluation. While the goals of a healthcare system may be clear, it is not always easy to disentangle how the system's components fare at achieving them. It is certainly known that there are resources used and processes involved, but it might not be optimal to gauge all the elements of a program or agency. Resources are scarce and a strategy needs to be followed. The key lies in finding the elements that reveal the most about the program or agency. First, all stakeholders should be involved; it is desirable to include managers, evaluators, users, and every affected party when making decisions about evaluation. Second, it is necessary to develop a framework that will allow every stakeholder to understand how the program or agency intends to solve a problem. Once the context and functioning

of the program or agency are understood and expected outcomes stated, it is easier to decide which aspects need to be monitored and which examined more carefully through evaluation.

As evaluation has become more widespread, frameworks to study the functioning of programs, referred to as program theory by Donaldson and Lipsey (2006), have also become abundant. The logical framework, the theory of change, and results-based management are only some of the methods used to describe program theory. Because the diverse use of terms can be confusing for the newcomer, it must be kept in mind that they all aim at showing how a program works and how to measure progress. They all generally focus upon three elements: the context in which the problem prevails, the functioning of the program, and outcomes. To explain these elements and the relationships among them, these methods usually employ some kind of mapping and/or matrix construction. After building a logical model in which inputs, processes, and outputs are clearly specified and related to each other in a complex chain of actions, these methods require the design of indicators and their correspondent targets (in numeric terms), sources, and assumptions made. The two main frameworks used in healthcare evaluation are the logical framework, often used by the World Bank, and the strategy maps balanced scorecard, originally proposed by Kaplan and Norton (1996).

On this topic, we can see that although balanced scorecard (BSC) approaches are most commonly used in healthcare-related agencies, usually with significant success (see Inamdar et al. 2002; Zelman, et al. 2003), and logical frameworks are used to monitor programs, BSC approaches can become helpful tools for monitoring programs as well. The challenge lies in identifying stakeholders and the mapping processes and innovation at which agencies that manage programs should excel to attain consumer and stakeholder satisfaction in a context in which much of the processes are performed by external agencies. Examples of the development of BSC approaches in

public health agencies can be found in the works of García (2004), Villalbi, et al. (2007), and Woodward (2004), while the Superintendencia de Salud of Chile maintains its BSC on its Web site (see <http://www.supersalud.cl/568/propertyvalue-1734.html>).

#### IV.2.2 Healthcare Performance Indicators

Performance indicators, which measure several elements of a program, agency, or system, lie at the core of evaluation because they can be used to monitor the inputs, processes, and outcomes of any public policy. They can also be used to monitor external variables that can impact the outcome of a program. Indicators are important for every party involved because they help keep track of operations and outcomes. For healthcare managers, indicators warn of failures and indicate achievements while a policy or program is being implemented. This information supports decision-making, auditing, the timely correction of errors, and improvement in performance. For the government, indicators allow assessment of the value-added of a policy and provide insights into what would have happened if the policy had not been implemented. For users, indicators can aid the decision-making process within healthcare markets. For payers, published indicators—as long as they are easy to understand—allow determination of how their resources are being used and if there has been any progress. However, not all indicators are useful for decision-making. Useful indicators are only those that provide information on some of the elements in the logic of the system.

In order for indicators to be readily available, data must be produced on a regular basis. Monitoring is a task that is better operated continuously rather than at discrete and sporadic intervals. Thus, a good system of indicators will perform better if it is planned during the design stage. This does not mean that policies that have been already implemented cannot be monitored; a good strategy to develop a database will be operational at any time. Still, the sooner the need for information is recognized, the easier it will

be to collect it. A database that provides quality information will not only be an important source of indicators but also central for making further assessments; that is, for performing evaluations.

Developing performance indicators usually requires some time because they need to have certain “ideal” features: 1) measure clear and specific conditions; 2) measure performance directly, in quantifiable terms when possible, although if this is not feasible some proxies can be used; 3) be inexpensive and easy to obtain and use; 4) be based upon clearly identifiable and reliable data sources; 5) be periodically updated or, ideally, continuously updated at low cost, in the case of administrative data they are produced in the performance of the process; and 6) only monitor the best available indicators, not all the indicators.

Once the indicators have been selected, a monitoring plan should be designed. It is necessary to specify how the data will be generated; when the data will be gathered and by whom; and how the data will be processed, analyzed, and disclosed.

Indicators can be classified in many ways. In relation to the processing of information, indicators are categorized in complete, partial, or complex. If they measure the phases of completion of the program, the indicators can be classified as resource, output, or impact indicators. In relation to the variables involved they can be classified in elementary, derived, or compound indicators (Tavistock Institute 2003). Here we classify them into simple indicators and complex indicators. Simple indicators are statistics that relate the value of two variables, typically as a ratio, with the purpose of making comparisons. Complex indicators are those that have a theoretical or counterfactual basis. Table IV.1 shows examples of simple indicators used for systems, agencies—along all three main processes—and programs. The examples below show the usefulness of this approach.

**Table IV.1**  
**Examples of Simple Indicators Used to Follow Healthcare Goals**

	System	Agencies		Programs	
		Funding and allocation	OMCC	Provision	
<b>Improve population health</b>	Age-adjusted mortality rates  Morbidity measurements  Recovery/survival rates  Status of the population  Access to healthcare services that have a demonstrably large impact on community health status	Enrollment rates (universality)	Number of interventions in the package of services (comprehensiveness)  Types of interventions provided (completeness)  Effectiveness of care: 1. Number of visits 2. True access to different Interventions/treatments 3. Appropriate treatment/management for some conditions 4. Preventive or supportive care  Certification	In-hospital mortality rates  Access to different Interventions/treatments  Appropriate treatment/management for specific conditions  Certification	Specific mortality and/or morbidity rates
<b>Horizontal equity</b>	Constitutional entitlement Enrollment rates Equal access to health services that have a demonstrably large impact on community health status	Resources across groups of affiliates	Value of package of services across population groups  Access to different interventions/treatments across population groups	Access to different interventions/treatments across population groups	Target population
<b>Vertical equity</b>	Private spending	Premiums, deductibles, and copayments across affiliates	Deductibles and copayments	Payment at the point of service	Cost of participation
<b>Macro-efficiency</b>	Overall health expenditures	Budget deviations	Budget deviations	Budget deviations	Budget deviations

Table IV.1 (continued)

System	Agencies		Programs		
	Funding and allocation	OMCC	Provision		
<b>Micro-efficiency</b>	Several measures of outputs per inputs used	Enrollment rate of potential population	Administrative average cost per affiliate	Several measures of cost and outputs per inputs used	Average cost per beneficiary
	Administrative cost	Payment of contribution of enrolled population			
		Average cost of enrollment	Medical loss ratio per affiliate	Operating revenue	Targeting
		Operating revenue	Operating ratio	Net income	
	Net income	Net income ratio			
<b>User satisfaction</b>	Measures of time Choice	Subjective measures of satisfaction assessed by surveys	Subjective measures of satisfaction assessed by surveys	Subjective measures of satisfaction assessed by surveys	Subjective measures of satisfaction assessed by surveys
	Attention to users	Reenrollment rates	Reenrollment rates	Consultation rates for different diseases	
	Other measures of satisfaction assessed by surveys				

Sources: Hurst and Jee-Hughes 2000; OECD 2003b; PAHO 2007; [www.ncqa.org](http://www.ncqa.org); WHO 2003 and 2008.

When we assess healthcare systems or programs, we are usually concerned with basic issues such as coverage. Although broadly used, an indicator for coverage can lead to different answers, depending upon what it is actually measuring. Coverage is alternatively measured according to the criteria of constitutional entitlement, explicit guarantees, or access. Constitutional entitlement refers to rights stipulated in a constitution or the fundamental statutes of a country, which encompass jurisprudence (see CISS 2008a for a discussion on entitlement). Another use of entitlement is that which refers to explicit guarantees established in the programs; this is the definition used by the WHO (1998). Under this context, programs are classified as either entitlement or non-entitlement programs. The former are those in which there are explicit guarantees of healthcare and the latter are those that provide those healthcare services

that can be afforded by the budget.. Typically, payroll-based funded systems are entitlement based (called *Bismarckian* systems) while budget-based systems are non-entitlement based (called *Beveridgian* systems). Finally, it is very common to see indicators that measure access to services that are used as measures of coverage.

The main challenge is the ambiguity in measuring coverage, sometimes at the level of funding, sometimes at the level of enrollment, and other times at the level of access to services. A successful approach achieves coverage at all three levels. Viewing the problem as an entitlement question may have some use in politics by promoting public action to secure funding, but by itself entitlement means little if not backed by coverage at the level of services.

These indicators, when compared to basic information or other types of benchmarks, are useful

to describe and assess aspects of healthcare systems, programs, and agencies. Nevertheless, because the indicators are calculated as the ratio of two variables, they give only partial information, and thus may lead to erroneous conclusions. One example of this situation was described in Chapter II. We describe another common situation in the following paragraph.

Infant mortality rate (IMR) is one of the main indicators used when assessing healthcare outcomes in a society. When combined with data on healthcare expenditures, it usually provides an assessment of healthcare system performance. An example of its use is that by researchers who argue that the United States ranks below many European countries based upon IMR. However, when other indicators, such as access to cancer treatment, are included, we can see that the performance of the U.S. healthcare system ranks above those of Europe.

In general, healthcare systems cannot be gauged by healthcare outcomes because outcomes are the result of many determinants (Naylor et al. 2002). To gauge a healthcare system, many indicators should be taken into account, and simple indicators based upon ratios give only partial information. Partly for this reason and partly because of greater data availability and computational capability, more sophisticated indicators are being developed. These complex indicators give more consistent results, answer more questions, and are more useful for evaluation purposes. However, they are not perfect, and because some continue to measure healthcare outcomes, they may be subject to the same criticism discussed in the previous paragraph. Table IV.2 shows the most widely used complex indicators in healthcare.

After reviewing the indicators that countries have regularly reported using to assess their healthcare systems, we can make the following conclusions (for a complete report on this issue, see CISS 2008b):

- The PAHO has an initiative aimed at gathering key indicators for LAC. The information produced by such an initiative is, in many countries, the only information regularly produced.

- The use of complex indicators is not as common as the use of simple indicators. Some indicators are not produced systematically by national healthcare systems; in fact, they are mostly produced by academia in developed countries, but not as part of a regular evaluation system.
- Most countries generate basic indicators regarding mortality, mobility, and service coverage, and much information is produced within the same aggregate indicators; for example, mortality is discussed by age, disease, etc.
- In relation to the performance of healthcare systems, equity can be measured along vertical and horizontal dimensions. In the former, simple indicators such as public and private spending are commonly used while more complex indicators, such as catastrophic and impoverishment expenditures, are seldom used. Almost no country measures horizontal equity with complex indicators.
- Overall health expenditure is the most common indicator used by countries to measure macro-economic efficiency. Micro-economic efficiency is measured through the ratios of users to infrastructure and human resources.
- In regard to user satisfaction, few countries use indicators aimed at gauging user satisfaction. Moreover, until now any of them use complex indicators.
- In many cases, information is not updated frequently, a situation that may reflect that standardized process are not in place.
- A number of countries administer national surveys on a regular basis to assess the health of populations and other indicators of interest.
- In some countries, the ministry in charge of health issues has a strong department of statistics. These countries maintain a micro-site within their ministry Web site to provide basic information and tools to generate some statistics.

**Table IV.2**  
**Examples of Complex Indicators Used to Follow Healthcare Goals**

	System		Agencies		Programs
		Funding and allocation	OMCC	Provision	
<b>Improve population health</b>	Health-related quality of life (HRQOL), e.g., quality-adjusted life years (QALYs), effective coverage			Patient safety indicators	HRQOL, e.g. QALYs for specific diseases, effective coverage
<b>Horizontal equity</b>	Outcomes and access inequality measures, e.g. inequality with respect to life- years and QALYs				Outcomes and access inequality measures, e.g. inequality with respect to life-years and QALYs
<b>Vertical equity</b>	Financial inequality measures, catastrophic and impoverishment expenditures	Willingness to pay			Financial inequality measures, catastrophic and impoverishment expenditures
<b>Macro-efficiency</b>	Fiscal solvency of system  Death weight, loss of provision of healthcare services	Fiscal solvency of population enrolled	Fiscal solvency of agency based upon package provided and population enrolled	Fiscal solvency of package provided and population enrolled	Fiscal solvency of program  Death weight, loss of provision of program
<b>Micro-efficiency</b>		Efficiency curves, e.g. DEA	Efficiency curves, e.g. DEA	Efficiency curves, e.g. DEA, technical quality of providers, avoidable hospitalization	
<b>User satisfaction</b>	Expected adjusted satisfaction of users	Expected adjusted satisfaction of users	Expected adjusted satisfaction of users  Economic analysis of wiliness to pay	Expected adjusted satisfaction of users  Economic analysis of wiliness to pay	Expected adjusted satisfaction of users  Economic analysis of wiliness to pay

Sources: Hurst and Lee-Hughes 2000; OECD 2003b; PAHO 2007; WHO 2003 and 2008.

- In the United States, the National Center for Health Statistics of the United States, a public agency affiliated with the Department of Health and Human Services, is a rich source of public information regarding health indicators.
- In Canada, the private Canadian Institute for Health Information provides public information on health.

Based upon the discussion above, we propose the following recommendations:

- *Countries should start developing all relevant indicators, including those not currently developed in a regular format, such as administrative cost. While efforts have been made to produce healthcare outcome indicators, a complete perspective can only*

*be achieved when there is information regarding equity, efficiency, and satisfaction.*

- *Countries should start developing complex indicators. In Mexico and Chile, for example, complex indicators are now being produced.*
- *The targets for indicators should be agreed upon among the key stakeholders. They should be not so ambitious that are unreachable but not so modest that they result in only minor improvements. Targets should reflect realistic outcomes of what can be achieved within the current context, taking into account the actions needed to pursue them.*

We should remain aware that the global ranking of healthcare system performance based upon aggregate indicators is extremely difficult, as it was shown to be in the World Health Report 2000 (WHO 2000). This report was criticized for the weights used in the calculation of indexes for the use of healthcare services provided as indirect measures of healthcare system performance, as well as for the way it assessed healthcare system equity. The OECD has been making a valuable effort to create cross-national comparisons of healthcare indicators (see for example OECD 2006).

The metrics used to monitor the agencies responsible for healthcare are few in number and not always readily disclosed. Broadly speaking, we can summarize that agencies are monitored according to the following perspectives: 1) the administrative perspective, in which managers establish a strategy, tasks, indicators, and metrics that should be reached by different areas of the organization, and for public agencies 2) the fiscal perspective, in which agencies are monitored regarding the use of public funds and other relevant issues, such as budget deviations and procurement challenges. When considering these perspectives, two issues arise. First, even if agencies have their own strategy, external monitoring based upon the fiscal view dominates the efforts of most public agencies. This is, unfortunately, the result of managers' rational behavior; the period for which most managers are selected is very short in comparison

to what must be achieved to follow a long-term strategy. Managers' personal success may depend upon not failing in terms of financial control in the short run rather than achieving success in the long run. Second, in agencies that perform more than one function, such as vertically integrated agencies, there is a risk of overlooking one of the functions. For these reasons, we recommend the following:

- *external monitoring of public agencies must be more comprehensive and incorporate some elements of the administrative perspective into the fiscal perspective*
- *vertically integrated agencies should endeavor to work as if a separation of functions prevails (e.g., financing, OMCC, and provisioning) and develop indicators accordingly*

One type of agency that has received significant attention is that of hospitals. A significant amount of information has been published about hospitals in both academic and non-academic publications. Hospitals are closely monitored according to key indicators such as budgets, the ratio of beds to patients, and physician load, and are also regularly monitored for compliance with sanitary regulations. Nonetheless, we believe that additional improvements can be made, several of which are the following:

- *Once a hospital has constructed a reliable system of simple indicators, it should begin to develop complex indicators. Although these may not be unique, as it is the case of ratio indicators, extensive literature supports their use and assess the advantages and disadvantages of indicators proposed.*
- *Hospitals should be monitored in a comprehensive manner encompassing all perspectives. The OR approach for evaluating a system of hospitals, rather than the administration of individual cases, has proven to be particularly useful in assessing hospital efficiency.*

In comparison to systems and agencies, programs receive more comprehensive attention, often because they are based upon specific public funds assigned to complete a task. In many cases, programs are

monitored with respect to an actuarial and a fiscal view. On the other hand, scholars usually try to evaluate healthcare programs as part as their academic agenda. The main reason for the lack of a complete evaluation of healthcare programs in LAC is that programs are often implemented before the evaluation strategy is in place. For this reason, we recommend:

- *Evaluation should be a key aspect of the design of programs and programs should be implemented in such a manner that a reliable system for evaluation can be put into place.*

The following recommendations apply to systems, agencies, and programs:

- *Aggregated indicators, including those at the national level, are very useful for some stakeholders, such as political leaders, but may not be useful for managers. Thus, it is very helpful to disaggregate indicators for processes and programs.*
- *Indicators should be based upon individual data. In this regard, IT systems should be put into place to measure information at the individual level (e.g., cost per treatment).*
- *The system that develops indicators should be sufficiently flexible to adapt quickly to new developments.*
- *Health outcomes are the result of many interacting factors, such as socio-demographic characteristics and education. For this reason, some argue (see for example Naylor, et al. 2002) that some markers outside healthcare systems should also be followed in order to better assess healthcare systems and understand inequalities.*

#### IV.2.3 Information Sources

There are two main sources of healthcare data—administration data and survey data and also two types of measures—objective and subjective. Administrative data provide objective measures and, if systems are well designed, databases can be fed directly out of operative events. Surveys can provide both objective data, such as blood-based measures,

weight, height, and other indicators that are easily measured during interviews, and subjective information. Subjective data regarding health status is further divided into self-assessed measures of global well-being and reports of the incidence of chronic conditions. In the following section, we summarize the findings on the advantages and disadvantages of using the two types of data and the two types of measures. We also offer several suggestions for improving the data-collection process within healthcare systems. The most common issues regarding administrative data are the following:

- Administrative data on health, such as medical and discharge records and vital statistics, provide reliable and objectives measures of health. Nevertheless, physicians, nurses, and administrators can make errors when adding data to a database. Proper training in the use of information systems and electronic healthcare records should improve the collection and quality of data provided by administrative sources.
- Because many public agencies follow a cash-flow budgetary approach to accounting, they do not produce some important information. In particular, information on assets and liabilities is not easy to obtain and the pricing of processes is difficult in the absence of financial accounting methods.
- Even though administrative data are collected on a regular basis, they may not be immediately available. Although one of the features of administrative data is that they can used shortly after they are generated, even on a real-time basis, doing so is not feasible if information must first be consolidated, organized, and verified. With advances in IT a proper system, carefully designed with clean information loaded since the beginning should avoid these problems.
- Administrative data consist of disconnected pieces of information from the same individual. Healthcare systems typically collect individual information in terms of wages, contributions (but

not when healthcare services are not provided under an insurance mechanism), and admission and discharge records for each interaction of the individual with the healthcare facility. Nevertheless, it is often difficult to create a record that contains all of the individual's information; indeed, sometimes two discharge records for the same individual for the same diagnosis, the product of two hospital stays, cannot be linked. Again, the use of electronic health records can resolve this issue, especially if the system is embedded within an IT architecture centered upon the citizen (see CISS 2007 for more information).

- Administrative data are often not continuously updated. As was explained in previous CISS report (CISS 2007), two processes that can yield improved results in social programs are account maintenance and customer care (AM&CC). It is very important for agencies to launch a modern approach to AM&CC. Although expensive and ineffective in the past, current technologies have greatly increased the gains from managing individual relationships in a detailed manner.
- Administrative data contain very little information on socio-demographic characteristics. Although this information may not be directly relevant for managing a program, it allows agencies to develop personalized services, and becomes key when performing analyses of public policy issues. Surveying a representative sample of the affiliates and linking the administrative information with that of the surveys has proven very useful (see Arenas de Mesa et al. 2006 for a case analysis of the pension system in Chile).

Survey data can be very useful in providing information on several dimensions not captured by administrative data. Survey data can supplement the lack of administrative data, although it is not the best source for monitoring and evaluation. The following are several particular concerns regarding health and income data from surveys:

- Income may be under-reported or over-reported, depending upon the true income of the individual, and as such is not very useful in making assessments.
- Survey-based measures of health give point-in-time estimates unless panel data are available. Moreover, if the delivery of the data is delayed, the data are less useful for continuous monitoring. However, they can be very useful for evaluation because the data can capture information in many dimensions.
- Self-reported measures of health are often erroneous because respondents are being asked to provide subjective judgments, and as such, there is no reason to expect that these judgments will be comparable across individuals (Bound 1991).
- It has been argued that measurement error may be higher for self-reported aggregate measures of health than for, still self-reported, measures of specific illnesses or information for subsequent mortality as proxies for health. Nevertheless, recent studies have shown that this may not be the case (Baker et al. 2001). To address this problem, several researchers and organizations have used different measures of health, such as relative measures, which ask the individual to compare his or her health to that of a person of the same age and economic condition. As of the present, this seems to be the best option when using self-reported measures of health.

Based upon the previous discussion, we can make the following conclusions regarding the implementation of an evaluation and monitoring strategy:

- *Data sources and the use of databases should be considered from the beginning and they must respond to a long term strategy if more of the systems want to be obtained.*
- *When possible, information should be obtained from transactional systems.*

- *Information systems must be integral and centered on the individual. By integral, we mean that information on all processes is collected, including enrollment, collection, allocation, OMCC, and provision data regarding the entire continuum of care. Moreover, data must be collected on health outcomes and cost measures (see CISS 2007 for more information).*
- *Intranets and the Internet should be used to collect information whenever possible.*
- *Surveys should be seen as sources of information supplementary to administrative data and not as alternative sources.*

### IV.3 Evaluation

Broadly speaking, evaluation in social programs can take three forms: 1) evaluation of program design; 2) evaluation of program management, which in turn is an evaluation of the functions performed by the agencies that manage the programs; and 3) impact evaluation. The evaluation of the design of the program is useful when designing a new program, as is determining whether the design will function by verifying if the program has a clear logic and consistency among objectives, inputs, processes, and outputs.

Evaluation of the management of the program consists of empirically verifying how the program is

run with the purpose of identifying implementation issues. Overall, it is an evaluation of how the different agencies that participate in some process of a program are accomplishing their responsibilities. Impact evaluation assesses how the program, whether managed by one or multiple agencies, succeeds at attaining its goals. The three types of evaluations work complementarily in assessing whether programs and agencies meet their objectives and identifying areas of opportunity given the current knowledge of markets, and individual and firms incentives. The evaluation of programs and agencies often leads to design changes, which in turn are often translated into legal changes.

The monitoring of key indicators, whether simple or complex, and their comparison to basal measures, targets, or benchmarks is a straightforward form of evaluation. This is the type of evaluation that most systems, agencies, and programs perform and is the focus of the efforts of international initiatives, such as the Millennium Development Goals Initiative presented in Box IV.1.

Benchmarking using the latest developments to calculate indicators can be very efficient in assessing the performance of different agencies. Box IV.2 provides an example of benchmarking using a cost and output comparison.

#### Box IV.1

#### Millennium Development Goals in Healthcare

The Millennium Development Goals (MDGs) are the objectives of a strategy aimed at reducing the world's extreme poverty by the year 2015. They have been promoted by the United Nations, and every country in the world, as well as the most prominent international organizations, has committed to fulfilling them. The MDGs try to improve the well-being of the poorest people by improving their health and education. They also stress the importance of developing a global partnership for cooperation and preservation of the environment.

To make this project a reality, and not just a set of good intentions, the United Nations associated realistic targets with each of the goals in order to measure progress. With 1990 considered the year of inception, the targets are expected to be met by 2015. The table below shows the MDGs and their related targets (and implicitly some of the indicators to be monitored). It is worth observing that the targets for the last two goals are ambiguous. To overcome this issue, the United Nations associated

## Box IV.1 (continued)

various measurable indicators with them. For example, for the target of Goal 7—integrate principles of sustainable development into country policies—indicators such as the area protected to maintain biological diversity and proportion of the population using solid fuels are used.

MDG	Target(s)
1. Eradicate extreme poverty and hunger	Halve, between 1990 and 2015, the proportion of people who suffer from hunger
2. Achieve universal primary education	Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
3. Promote gender equality and empower women	Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015
4. Reduce child mortality	Reduce by two thirds, between 1990 and 2015, the under-five mortality rate
5. Improve maternal health	Reduce by three quarters the maternal mortality ratio between 1990 and 2015
6. Combat HIV/AIDS, malaria, and other diseases	Halt and reverse the spread of HIV/AIDS, malaria, and other major diseases by 2015
7. Ensure environmental sustainability	Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources <sup>1/</sup>
8. Develop a global partnership for development	Comprehensively address developing countries' debt <sup>1/</sup>

Note: 1./These goals are associated with more than one target.

Source: United Nations 2006

The most important aspect of the MDGs is their focus on health improvement. Three out of the eight goals directly relate to health: reduce child mortality, improve maternal health, and reduce the incidence of certain diseases. Nevertheless, it is not easy to distinguish among the MDGs, as research has proven that factors such as increased material well-being or better education are closely related to improvements in health. This consideration is very important for healthcare systems. As their range of action does not have clear boundaries, the use of indicators and the completion of targets is only part of their task. In some cases, further assessment to establish cause-and-effect relationships is required to confirm the effectiveness of a policy.

Being comprehensive in the area of health, the MDG initiative is a wonderful example of a well-designed strategy that includes goals, targets, and indicators. Moreover, to make countries accountable and push them toward compliance with the MDG initiative, the United Nations publishes an annual report (available online) that illustrates the progress that has been made during the period. For instance, the report has shown that LAC is not making good progress toward the completion of the MDGs. The region's main successes are the reduction of hunger and infant mortality rates, whereas the other indicators only show mild to moderate results (UN 2005).

**Box IV.2****Comparing Healthcare Services: Kaiser Permanente and the United Kingdom's National Health Service**

In the past, the National Health Service (NHS) of the United Kingdom was perceived as an efficient provider that could resolve many of its main challenges through additional investment, rather than through the restructuring of its organization and management. Nevertheless, a detailed study published in *The British Medical Journal* in 2002 that compared the outcomes and costs of Kaiser Permanente (KP) and the NHS found that these organizations provide a similar range of services and for roughly the same number of years. The NHS is a national public agency that is generally believed to be the key factor in keeping British national health expenditures low while providing high-quality services at an acceptable level of access. On the other hand, KP is a private organization operating mainly in California, which is considered to have one of the most expensive healthcare systems in the world. However, after controlling for age and socio-economic differences between the two populations, KP patients were shown to receive better healthcare services than were NHS patients for roughly the same cost. In particular, KP patients were offered more comprehensive and convenient primary-care services and enjoyed much more rapid access to specialist services and hospitals. In addition, they were hospitalized one third of the total days that KP patients were, the most striking difference between the two populations.

The researchers noted that KP achieves better performance at roughly the same cost because it has 1) better integration of care throughout the system, 2) efficient management of hospital utilization, 3) the benefits of competition, and 4) higher investment in IT. The researchers explained that KP has a high level of integration between physicians and administrators that allows control and accountability across all components of the system. For example, KP can manage patients in the most appropriate setting, implement disease-management programs for chronic conditions, and make trade-offs in expenditures based upon appropriateness and cost effectiveness, for which it has a reliable system of costing. The fact that KP spends less on hospital bed days makes it possible for it to maintain a staff of more and better paid specialists; perform more medical interventions with much shorter waiting times; and spend more on improved IT, comprehensive and convenient primary-care facilities, ambulatory surgery centers, and other facilities.

KP's use of more sophisticated technology and efficient IT systems reduces administrative time, particularly clinician time spent taking medical history, dictating information, and locating patient records. KP has invested 2% of its total budget to extend this virtually paperless patient care system to its 423 outpatient centers and over 11,000 clinicians, whereas the NHS has invested only roughly 0.5% of its budget on IT.

The comparison of NHS and KP focused upon cost and performance. Cost was measured by determining the total operating costs of each system and adjusting for four factors: 1) the package of benefits offered, 2) special circumstances not common to the systems, 3) the relative costs of the medical environment in which the two systems operate, and 4) the age and socio-economic characteristics of the populations served. Performance was measured by comparing inputs, access to services, responsiveness, and limited quality indicators.

*Source:* Feachem, et al. 2002.

In vertically integrated agencies, the monitoring of key indicators across different processes and units should be straightforward given that the gathering and internal disclosure of data should not face obstacles. In decentralized markets, where many independent units operate as OMCC agencies or providers, the establishment of benchmarks is not always simple, as it is difficult to gather information and incentives for disclosure may be weak. The computation of indexes for the purposes of benchmarking and the sharing of best practices across different agencies is more of a voluntary effort organized around an external initiative.

For example, the Institute of Hospital Engineering, Australia (IHEA; 2008) provides a system of asset benchmarking for healthcare facilities management to which hospitals voluntarily adhere. This system collects data through surveys and analyzes, ranks, and discloses information on several indicators to its members. The information is presented in such a way that each individual unit can compare its status with the best and worst practices within comparable groups (e.g., rural to urban hospitals).

On the other hand, the National Committee for Quality Assurance (NCQA), a private not-for-profit organization in the United States focused upon improving healthcare quality, is an association to which healthcare plans adhere in order to obtain a seal indicating that they have been subjected to a rigorous and comprehensive review. All members annually report on their performance on the Healthcare Effectiveness Data and Information Set (HEDIS), which assesses quality standards and performance measures for a broad range of healthcare entities. The measures and standards are disclosed so that not only managers but also policymakers, users, researchers, and other stakeholders can use them to improve their performance and make decisions.

The IHEA and NCQA initiatives reflect something common across the world: Much of the effort in the evaluation of healthcare has been concentrated on healthcare plans and provision rather than funding and allocation.

Although the monitoring of certain indicators may be very useful, it is possible to enrich the evaluation, especially of programs and agencies, by employing more sophisticated tools that can be used according to the economic, fiscal, actuarial, and OR perspectives. As explained in Chapter II, the economic view focuses upon understanding the behavioral responses of firms and individuals to the rules of a program. In the design of healthcare programs, it is paramount to use models that predict these responses, given that the healthcare market suffers from many failures, such as the use of asymmetric information that leads to opportunistic behaviors, adverse selection, moral hazards, externalities and public goods (especially in terms of public health actions), as well as cost structures that can lead to noncompetitive results.

For example, in systems characterized by formal and informal labor markets, as is common in less developed countries (LDC), or in countries with segmented healthcare programs such as the United States, it is very important to understand how enrollment and labor market mobility adjust to changes in contribution rates or benefits provided. Guerrero (2008) uses a framework to understand and measure the different factors that have prevented the realization of universal healthcare coverage in Colombia. In his analysis, he hypothesizes that the large informal market deters workers from enrolling in the program, a barrier that was not considered when the Colombian reform was designed.

Unfortunately, few studies have analyzed causal relationships among labor markets, program designs, program coverage, labor mobility, and health outcomes for LAC, and no consensus has been reached. Indeed, few studies have been able to systematically examine the effects of healthcare reforms in developing countries (Gakidou et al. 2006). One exception is Mexico's evaluation of its *Seguro Popular* (public documentation of the evaluation can be accessed at <http://www.coneval.gob.mx>). This lack of evaluation is striking, considering the number of healthcare reforms that have been conducted in LAC.

Some of the latest studies to analyze the effect of healthcare reforms in LAC, such as that of Guerrero, were presented in September 2007 in a conference organized by the CISS, and will be published in *Well Being and Social Policy* Vol. 4 No. 2, a journal edited by the CISS.

A significant number of researchers in the United States have studied the effects of segmented healthcare insurance (see for example the review of the literature in Chapter VI of CISS 2004) and have analyzed the effect of the extension of health insurance coverage on health outcomes (see for example Currie and Gruber 1996a, 1996b, and 1997). Economic models have also been gaining ground as larger and better databases are becoming available. They are useful for assessing whether it is worthwhile to spend an increasing share of national income on health, on the care of individuals near the end of life, or the introduction of new drugs or therapies. Economic applications are based upon human capital theories, from which the concept of the *value of life* is derived, which refers to how much a year of life is valued (see for example Becker et al. 2007 and Hall and Jones 2004).

The actuarial evaluation approach uses numerical models to calculate demographic and financial variables over time under certain rules and assumptions regarding the behavioral responses of participants. Actuarial evaluations are typically used to calculate the overall financial solvency of a program and are a prime source of information to justify adjustments to programs. Actuarial reports are regularly produced for pension schemes but less frequently for healthcare programs, especially if healthcare is financed via budget transfers. Moreover, in many cases actuarial projections are based upon aggregate data. Nevertheless, new computational capabilities allow for the development of models based on micro-data that can result in more accurate calculations.

The use of the actuarial approach as a tool of social health insurance in a role different from that

of projecting liabilities and revenues has been increasing substantially. After the application of reform programs that separately delineate a funding function, an OMCC function, and a provision function, the allocation of funds requires the measurement of risks and costs at the individual, disease and diagnostic level. The reason is that budgets are assigned following “capitates, risk-adjusted formulas” complemented by “prospective payment systems” that pay hospitals for conditions treated. Thus, actuaries are involved in measuring risk profiles of population groups, the costs of attending those profiles, and the costs of specific treatments. This sort of calculation is required by Medicare in the United States and by the health protection system of Colombia, among other organizations. The profusion of actuarial information used for decision-making purposes naturally lends itself to the development of regularly updated databases and the evaluation of allocation strategies.

The OR approach, which focuses upon the measurement of efficiencies in systems or organizations, has gained importance as efficiency has become a main objective of policymakers within most healthcare systems (Jacobs et al. 2006). Efficiency analysis determines if expenditures are in line with customer preferences, assesses the introduction of new technology, and ranks different agencies (within a system) or units (within an agency). The OR approach applies statistics, optimization, stochastics, queuing theory, game theory, graph theory, and decision analysis to measure efficiency. For example, it uses data envelopment analysis (DEA) to measure the efficiency of decision-making units, such as OMCC agencies or hospitals. DEA identifies the most efficient unit and those units that depart from the efficiency threshold (see Jacobs et al. 2006 for a discussion on efficiency analysis in healthcare). Lack of information on important variables that measure performance, such as quality and short-time series data, is one of the practical limitations in performing efficiency analyses in healthcare (Jacobs et al. 2006).

One final consideration is the relationship between evaluation and process certification, such as ISO9000 certification. Process certification ensures that processes within an agency are performed in accordance with process manuals. An agency that is ISO9000 certified can claim that, at least in terms of management, the agency is in compliance. Nevertheless, there are other considerations. The program may be poorly designed or have unexpected outcomes despite performing processes according to operating manuals. This is an example of why all three types of evaluation—design, managing, and impact—should be performed. It also makes clear that ISO9000 certification is not a substitute for the evaluation process.

As can be concluded from the above discussion, there is room for the improvement of evaluation beyond monitoring and the comparison of indicators against basal measures, benchmark, or target number. We particularly recommend the following:

- *Evaluation should be a priority in social programs. In this regard, resources must be allocated for data generation and human resources training.*
- *While monitoring and comparing certain indicators is very useful, doing so should be recognized as only the first step. Systems, agencies, and programs must be subject to regular design, management, and impact evaluation.*
- *Given that management and impact evaluation may be limited by the data available, establishing a strategy of micro-data development for purposes of evaluation should be a priority.*
- *Modification and the design of new programs should proceed only after a proper evaluation has been performed according to the perspectives discussed above. The economic and actuarial models should be based upon the most advanced tools.*

#### **IV.4 Corporate Governance of Evaluation of Healthcare in the Americas**

Most evaluation efforts should be made by agency and program administrators in order to improve their

programs and agencies. Nevertheless, evaluation is also the function of surveillance and regulatory bodies. This section of the chapter describes other agencies involved in evaluation and what they monitor and evaluate. Regulation in healthcare markets is aimed at 1) guaranteeing the security and efficiency of health interventions, 2) guaranteeing that citizen rights are protected, and 3) promoting good market practices. Regulation goes beyond evaluation, but evaluation should be a central element. This analysis focuses upon healthcare systems, agencies, and programs as a whole rather than specific areas of regulation, such as drugs, surveillance, or advertising.

Another area of surveillance, especially if public funding is involved, concerns the monitoring of how public money is spent. In this regard, agencies and programs are subject to strict monitoring of their budgets in almost all countries, and in some countries, the evaluation of publicly financed programs is performed to assess whether public money should be spent on a program or directed elsewhere. Table IV.3 shows the areas of surveillance in relation to the goals of a healthcare system.

Governments have different agencies to conduct these regulatory actions. The role of the agencies across LAC can be classified as that of ministries, regulatory commissions, evaluating commissions, and audit authorities. In all countries, the Ministry of Health has traditionally been responsible for coordinating public health actions and stewarding the system. The growth in demand for health insurance has meant that it often enters into partnerships or conflicts with other agencies that play a role in the area, many of which have been involved in health insurance much longer than has the Ministry of Health. These include other ministries, social security agencies, and financial regulators. In several countries, the Ministry of Health is also an important provider of healthcare services, a situation that diminishes its capacity as a regulator due to the unavoidable conflicts of interest that arise with respect to its own hospitals and with respect to its competitors for public funds and patients.

There is a trend towards specializing policy issues, transferring the provision function to states, municipalities, or private parties, often non-profits. In this manner, the Ministry of Health can more credibly take a leading role in policymaking with respect to financial functions. This movement requires that some of the functions of the Ministry of Health be performed through specialized agencies that work under the umbrella of the Ministry but at a distance and autonomously in important respects. This is the case for the Public Health Agency of Canada, a dependent of Health Canada, which since 2004 has been charged with disease and injury prevention, health protection, health emergency preparedness and response, health promotion, and the undertaking of relevant research.

In most countries, an agency dependent upon the Ministry of Finance regulates insurance contracts, including those for healthcare. The responsibilities of these agencies are to (1) ensure that the operations of the insurance agencies follow the guidelines, with special focus upon the financial solvency and stability of the institutions and (2) promote the development of the insurance sector in order to extend coverage. Although the agency's stated scope should cover all insurance markets, its activities have rarely influenced social security. As part of the movement that has created specialized agencies to address health insurance, these financial agencies have sometimes assumed a main role in supporting the system or have deferred to the new agencies on matters concerning health insurance.

In Argentina, Chile, Colombia, the Dominican Republic and, if its legislature approves, possibly Uruguay, many OMCC agencies exist to serve the population, and specialized regulatory bodies (e.g., commissions or superintendencies) have recently been created. We can identify several general responsibilities for these bodies: 1) authorize and

overview agencies in the system, OMCC, and providers; 2) define benefits, guarantee citizen rights (e.g., that the medical plan is provided), and serve as counsel for the defense in some cases; 3) arbitrate controversies between users and those responsible for OMCC; 4) set criteria for the establishment of contracts between those responsible for OMCC and providers and ensure that agreements are met; 5) ensure that participants maintain good market practices; 6) provide and ensure that relevant information is disclosed; and 7) manage and verify the proper use of common funds, as does the *Fondo de Solidaridad y Garantía*<sup>2</sup> in Colombia. These responsibilities are achieved through drafting and issuing rules and bylaws and monitoring and using faculties to establish sanctions.

These agencies are not substitutes for a legal system but often have quasi-judicial functions. In many cases, complaints against those responsible for OMCC and/or providers are settled through the judicial system. For example, in Argentina complaints against *Obras Sociales* due to lack of provision of an explicit benefit have been resolved by the judicial system. In Colombia, cases often go to a constitutional court when patients believe that a service is being unduly denied. In the United States, Medicare, the agency that manages healthcare insurance funding for the elderly, performs many of the same functions in relation to the OMCC (e.g., health maintenance organizations) and other providers that receive funding from the agency.

In Chile and Mexico, agencies have recently been created for the evaluation of social programs. The main responsibility of these agencies is to verify that social programs perform credible evaluations in order to justify the use of public funds and improve the programs. In particular, these agencies 1) establish and coordinate the evaluation of social policies and programs and 2) review the fulfillment of the

<sup>2</sup> The *Fondo de Solidaridad y Garantía* is a common fund in the system wherein all transfers and cross-subsidies occur between formal labor market workers and informal labor market workers by the provision of a capitated amount to all OMCC present in the system.

**Table IV.3  
Main Areas of Regulation**

	<b>Guarantee security and efficiency of health interventions</b>	<b>Guarantee rights of citizens</b>	<b>Guarantee good market practices</b>	<b>Guarantee proper use of funds</b>
<b>Improve population health</b>	Ensure quality of providers through accreditation, certification, and the establishment of norms	Ensure access to healthcare services Ensure provision of all benefits Provide good system of patient allocation (references and contra-references)		
<b>Horizontal equity</b>		Ensure equal access for population entitled to same benefits Ensure provision of all benefits Ensure disclosure of all relevant information Ensure implementation of arbitrage systems between users and OMCC or providers Ensure targeting of social programs		
<b>Vertical equity</b>		Ensure equal access for population entitled to same benefits Ensure provision of all benefits Ensure disclosure of all relevant information Ensure targeting of social programs		
<b>Macro-efficiency</b>		Ensure coverage/package of benefits is fiscally viable		Audit program budgets and review income and expenditures
<b>Micro-efficiency</b>	Ensure introduction of benefits/therapies is cost-effective		Ensure no anti-competitive practices take place, authorize number of agencies, verify that transfer of accounts is performed correctly  Establishment of regulations in the agreements between OMCC and providers	Audit program budgets and review income and expenditures  Evaluate programs by performing cost-benefit and cost-efficiency analyses
<b>User satisfaction</b>	Establish agencies that attend ensure compliance	Ensure all relevant information is disclosed  Establish mechanisms of compliance Ensure implementation of arbitrage systems between users and OMCC or providers		Ensure transparency in the use of public resources

objectives, targets, and actions of the social programs in order to identify areas for improvement. The scope of these agencies is often limited to programs funded by public resources. Social security-based health programs are not under the scope of these agencies. Most countries have agencies to monitor other government agencies, though their scope is limited to fiscal monitoring. The Ministry of Finance and the Congress are the entities responsible for ensuring that public programs stay within budget and spend public monies correctly. Audit offices have gained importance across LAC due to efforts to reduce corruption and increase accountability.

We believe that many of the recommendations in this chapter can help health insurance agencies simplify their relationships with these external agencies. Although health insurance agencies usually operate with a much smaller set of information and only by exception have abilities or information comparable to those of these agencies, they are key players in informing decision makers about the true condition and needs of the programs. Based upon this consideration, we propose the following recommendations for the regulation of the healthcare sector:

- *The Ministry of Health should reinforce its policymaking capabilities by specializing in policymaking functions while decentralizing some functions, such as provision, and by creating specialized agencies with some autonomy to perform technical yet non-policy tasks, such as overseeing the pharmaceutical industry. Evaluation by the leading authority suffers if it competes with other operations and is subject to conflicts of interest.*
- *The agencies in charge of health insurance programs should be monitored regarding not only their budgets but also the three functions that they currently perform—funding and allocation, OMCC, and provision.*
- *Specialized regulatory agencies should facilitate the development of permanent and consistent evaluation frameworks, and their quasi-judicial*

*functions may become a first automatic filter to aid in enforcing laws and regulations.*

## IV.5 Conclusions

Evaluation of healthcare systems and evaluation of social health insurance currently have significant overlap. While past efforts on evaluation focused upon purely healthcare issues, financing is now a key aspect. This implies that the strategy of evaluation must do the following:

- 1) It should recognize that three core functions are performed—funding, OMCC, and provision—and that each should be evaluated with respect to its specific responsibilities, even in vertically integrated agencies.
- 2) It should draft a consistent and clear map of the agencies and programs that constitute the system, identifying the functions that are being developed by and within each agency. This exercise is usually a byproduct of the development of the strategy maps-balanced scorecard approach.
- 3) It should define the best mix of evaluation tools drawn from the different approaches (actuarial, economic, administrative, and OR) to develop a mid-term “vision.”
  - a) The vision should be citizen centered, not agency or government centered. In this manner, information will be provided from the bottom-up and will allow the achievement of a true linkage among the administration, the provision of services, and evaluation.
  - b) The vision should generously incorporate alternative technical and social views.
- 4) It should define the best way to apply the vision of evaluation in the short run, which likely entails the filling of many gaps.
  - a) It should link the information and evaluation tools to the stakeholders— families as taxpayers, the insured as patients, legislators

and regulators, budget authorities, and all others.

b) It should define an action plan to move from the short term to the long term using an information architecture plan that allows for the good selection of IT to create synergy among operations and evaluation strategies.

Being very ambitious, the evaluation strategy we are proposing may be subject to several challenges. Specifically, significant efforts would have to be devoted to coordinating different agencies and stakeholders and greater investment in IT would have to be made, but we believe that these tasks can be accomplished with political will, and that once in place, this evaluation strategy will fulfill demands for greater efficiency, accountability, and transparency.