Health Modules in Households Surveys in Latin America and the Caribbean: An Analysis of Recent Questionnaires

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# CONTENTS

**FOREWORD** ........................................................................................................................................... V

**PREFACE** ................................................................................................................................................ VII

**ANALYSIS OF EQUITY IN HEALTH UTILIZING HOUSEHOLD SURVEYS** ............................................. 1

- The concept of equity ............................................................................................................................. 1
- The quest for equity in health and the need for information ................................................................. 3

**OBJECTIVES** ........................................................................................................................................... 4

- General objective ....................................................................................................................................... 4
- Specific objectives ...................................................................................................................................... 5

**HOUSEHOLD SURVEYS IN LATIN AMERICA AND THE CARIBBEAN** .............................................. 5

- Social survey technique and the household surveys ............................................................................. 5
- The situation in the Region .................................................................................................................... 7
- Health modules in household surveys of the Region ............................................................................ 9

**HEALTH AS A COMPONENT OF HOUSEHOLD SURVEYS** ................................................................ 11

- Measurement of health using the survey technique ............................................................................ 11
- The "problem" of self-reporting ........................................................................................................... 16
- Conceptual frameworks and measurement ........................................................................................... 17

**THE HEALTH MODULE IN RECENT HOUSEHOLD SURVEYS** ....................................................... 19

- Methodological procedures ................................................................................................................ 19
  - Questionnaires analyzed .................................................................................................................. 19
  - Areas of analysis ............................................................................................................................... 20
- Analysis of the questionnaires ........................................................................................................... 21
  - Size of the health modules and their relation to other subjects .................................................... 21
  - Morbidity .......................................................................................................................................... 24
  - Utilization of health services .......................................................................................................... 26
  - Health care expenditures ................................................................................................................. 28
FOREWORD

Household surveys are an invaluable source of data for understanding the relationships between health and other factors such as income, education, employment, migration, ethnic group, urban-rural situation, and environment. They make it possible to study the interrelationships between these macrodeterminants and the health status of population groups, their access to health services, their utilization of these services, and their respective spending on health care.

The Public Policy and Health Program of the Division of Health and Human Development of PAHO/WHO is promoting the use of household surveys in the health sector, with the objective of gaining a better understanding of health inequalities and proposing interventions that can have a greater impact in terms of reducing these inequalities. This effort includes the following activities:

- Creation of a database on household surveys that have been conducted in the Region since 1985 and that contain one or more health modules. So far, 106 surveys meeting these criteria have been identified. The database includes the following information for each survey: general characteristics (sponsoring organization, availability of documentation and data); health aspects considered (self-reported health status, reproductive health, anthropometry, and access to care) and macrodeterminants included (household income and/or consumption, migration, employment, ethnic group and race, among others). The database is available online at: HTTP://165.158.1.110/english/hdp/hdd.htm

- Management of research projects on health inequalities that use data from household surveys. Completed recently in six countries of the Region with the cooperation of the World Bank and UNDP, the EquiLAC project was an initial exploration of the impact of poverty on health status, utilization of health care, and health care expenditures. Currently, a multi-center project is being developed in five countries with the support of PAHO’s Research Grants Program. It will not only describe health inequalities but will also develop models to explain the relationships between these inequalities and their determinants.

- Support for strengthening the design and implementation of health modules in the surveys, including the formation of a panel of experts who can advise PAHO and the Member Countries on this matter. This activity is carried out in coordination with the MECOVI project sponsored by the IDB, the World Bank, and ECLAC, with a view to improving the surveys on living conditions that are conducted in the Region.
Production of fact sheets on health inequalities in countries of Latin America and the Caribbean, using data from household surveys.

The present report, which relates to the item on strengthening the health modules of surveys, was produced by Ms. Marcela Ferrer during her internship in this program as PAHO Resident in International Health, under the supervision of Dr. Norberto Dachs, Regional Adviser on Health Statistics.

We hope that this report will prove useful to the specialists who will be working in the coming years to perfect the design of household surveys in the Region.

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The development and improvement of information sources for the design, monitoring, and evaluation of public policies is an activity of growing importance in the countries of the Region. Countries and technical cooperation agencies are undertaking various efforts to identify available data sources and the indicators that can be gleaned from them. These efforts relate to all social policy sectors and are intended to support the design of comprehensive strategies to improve living conditions and reduce poverty.

In the field of health, the recognition that inequity exists in the health conditions of the Region’s population has impelled the search for information sources to assist public policy-making. This implies recognition of the importance of social, economic, and cultural factors in influencing health conditions—a perspective that departs from the traditional approaches that emphasize factors directly related to health care, especially the utilization of health services. This change in the dominant approach means that the usual practices and strategies must be redefined, giving special importance, for example, to the design of intersectoral strategies for improving the health conditions of the population. This in turn requires access to information that typically is poorly represented in the data sources traditionally used by the health sector.

The present report examines the approach to health questions in household surveys, which are among the most useful sources of information for the analysis of equity in health and the design of public policies to reduce inequity. It describes the subjects addressed in the health modules of questionnaires used by household surveys conducted recently in countries of the Region. The main objective is to highlight their potential for analysis, as well as to pose certain methodological and conceptual questions related to use and interpretation of the results.

The report is divided into six chapters. The first chapter sets forth the main questions addressed by the study, placing them in the context of the agreement on the existing inequity in health conditions and its implications for public policies, and the need for new information sources to support the design, monitoring, and evaluation of these policies. General and specific objectives of the paper are presented in the second chapter. The third chapter provides background on how household surveys have been conducted in the countries of the Region and the characteristics of their health modules, while the fourth chapter reviews methodological and conceptual aspects of the measurement of health. The fifth chapter describes the principal characteristics of the questionnaires analyzed and the methodological procedures used in the analysis. The sixth chapter presents a summary and the principal conclusions.
We thank the Program on Public Policy and Health, Division of Health and Human Development of the Pan American Health Organization, for their consistent encouragement and support for the realization of this work. We especially recognize the valuable suggestions made by Dr. Norberto Dachs, who did a careful reading of the early drafts. We are also grateful to the team of the Inter-American Development Bank (IDB) of the Program for the Improvement of Surveys and the Measurement of Living Conditions (MECOVI), a joint initiative of the IDB, the World Bank, and the Economic Commission for Latin America and the Caribbean (ECLAC), for providing the questionnaires analyzed along with additional information, without which this work could not have been undertaken.
ANALYSIS OF EQUITY IN HEALTH UTILIZING HOUSEHOLD SURVEYS

The concept of equity

Equity in health is one of the most important concepts for those working in the field of public health today. Simply stated, it refers to the existence of unnecessary, avoidable, and unjust inequalities in the health conditions of the population. These inequalities are understood to originate in different social, economic, cultural, and environmental conditions.\(^1\)

The notion that inequalities are preventable, unnecessary, and, above all, unjust, lends a moral and ethical dimension to the concept of equity, leading to different definitions of what should be regarded as “equitable” or, in other words, “just.” Notwithstanding these different definitions, there is wide agreement that the health conditions of the Region’s population are characterized by profound inequity, and that this is the result of the enormous social and economic inequities that currently exist to a greater or lesser extent in all the countries. So critical is this phenomenon that the Pan American Health Organization (PAHO) has identified inequity as the principal health problem in the Region.\(^2\) This implies two issues of special importance for public policy in general\(^3\) and health sector policy in particular:

- The recognition that some inequalities in health conditions are unjust calls for the definition of some level of social justice and a search for ways to reduce or end the inequity in order to achieve that level of justice. The responses will differ according to

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3 The denunciation of inequity and the struggle for equity is a concept that is central to social policy-making in all sectors, including health.
the ideological framework, but their translation into public policies should take into account the identified causes of the inequity.

The recognition that inequity in health conditions stems from differences in social, economic, cultural, or environmental conditions implies shifting the focus away from factors related to health care, lifestyles, basic sanitation, and health services, which are direct determinants of health conditions. The focus turns instead to the factors that condition these determinants: employment, educational levels, income, gender, ethnic origin, area of residence, and migratory condition, among others. These can be defined as macrodeterminants of health conditions.

The importance assigned to these macrodeterminants of health underlines the need to move from sectoral to intersectoral actions and to consider the effects that actions in other sectors may have on the health conditions of the population. Beyond the obvious interrelationships between the different sectors of public action, intersectoral work is key because the worst health conditions are related to poverty, and the struggle against poverty clearly requires intersectoral consensus-building and coordination.

The relationship between health conditions and poverty raises questions about the possibility of achieving equity in health. If health inequalities stem from poverty-related conditions, is it possible to achieve equity in health without substantial transformations—that is, without ending poverty? The notion of equity implies a certain degree of inequality, understood as the ideal minimum threshold that a society agrees is “just.” Indeed, incorporation of the concept of equity into social policies and the shift from universalist approaches to targeted approaches reflect an acceptance of inequality in public action. The question is, then: Is it possible to establish an unequal society where inequality does not define—or generate—poverty conditions? In other words, is it possible to establish a society that is “equitable” or “unequally just” and that permits the achievement of equity in health? This question returns to the moral and ethical aspects of equity and warrants more profound reflection, above all by those who are working to design policies that promote equity in health.

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4 PAHO, 1999a.
5 Incorporation of the concepts of “horizontal equity” and “vertical equity” (PAHO, 1999b) would introduce criteria of equality according to need: equal resources for equal needs and different resources for different needs, respectively. However, the definition of what is necessary also reflects moral and ethical criteria. Even apart from this dimension, the underlying idea is horizontality within verticality.
The quest for equity in health and the need for information

Whatever definition of equity is adopted, its expression in health conditions requires empirical evidence for policy-making and decision-making. Social, economic, cultural, and environmental factors have not traditionally been included in the information sources widely used by the health sector, which include vital statistics and hospital registries. This lack of information reduces the capacity for policy-making based on reliable empirical evidence and makes it difficult to conduct assessments and monitor processes at the country level or in specific geographic areas.

One information source that appears especially useful in providing empirical evidence on health and its macrodeterminants is the household survey, especially multi-purpose surveys that contain health modules. The broad coverage of these surveys, the variety of subjects they examine, their frequency, the accumulated experience with their use, and the growing possibilities for using their databases in several countries of the Region, among other aspects, should make them a most attractive source of information for those working in the public health field. However, the surveys have been little used by the health sector. This stands in contrast to their extensive utilization by other sectors, mainly employment, but also education and housing, and by those who design policies targeted to vulnerable groups such as poor people, women, older adults, and the indigenous population. The limited utilization by the health sector probably reflects the widespread belief that the surveys do not permit construction of the key indicators traditionally used by the health sector, and it also reflects the minimal importance assigned until now to the macrodeterminants of health conditions. Whatever the reasons, there is a recognized need to seek available secondary sources of information and to promote their use, in order to generate indicators for the design of public policies aimed at reducing inequity in health, as well as for the monitoring and evaluation of these policies.

Although there is agreement regarding the potential usefulness of household surveys for addressing the subject of equity in health, it is not clear how much information they can provide or how far the analysis of the data can be taken. Given the diverse independent variables or macrodeterminants that can be incorporated in the surveys, a number of questions are especially important for the health sector. For example: Is it possible to analyze morbidity using these surveys, and how? What information can they provide on the public and/or private health services? Can out-of-pocket expenses be estimated? Is it possible to analyze lifestyles, family and social support networks, or the use of alternative therapies? In short, what information can the household surveys deliver for the study of equity in health?

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To address these questions, this paper describes the content of the health modules for all household members included in the questionnaires of household surveys carried out recently in countries of the Region. In addition to examining how the subject of health is measured in the household surveys, the study analyzed selected high-quality surveys done recently in the Region in order to show their analytical potential for assessing and monitoring health conditions and equity in health. The surveys selected come from the Program for the Improvement of Surveys and the Measurement of Living Conditions (MECOVI) of the World Bank, the IDB, and ECLAC, and from the Living Standards Measurement Study (LSMS) of the World Bank, along with other multi-purpose surveys conducted as part of national initiatives. All the surveys analyzed contain a health module, cover a variety of subjects, and have national coverage, and they generally permit disaggregations at lower administrative levels. Furthermore, the databases of these surveys are easily accessible or will be available very soon for public use.

It is hoped that the results of this work will help to guide and expand the analysis and monitoring of equity in health conditions in the countries of the Region. In addition, the findings are intended to provide a basis for discussion of the design of health modules in future household surveys.

**OBJECTIVES**

**General objective**

♦ Describe and analyze the health modules of questionnaires used in living standards and other multi-purpose surveys carried out in countries of Latin America in recent years, emphasizing the subjects covered and the potential for analysis and construction of indicators that can be used to assess and monitor equity in the health conditions of the population, in access to health care services, and in utilization of those services, considering the questions applied to all household members.

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Specific objectives

♦ Analyze the size of the health modules and their relation to the other subjects covered by the survey.
♦ Describe and analyze the design and content of survey questions on morbidity.
♦ Describe and analyze the design and content of survey questions on utilization of health services.
♦ Describe and analyze the design and content of survey questions on health care expenditures.

HOUSEHOLD SURVEYS IN LATIN AMERICA AND THE CARIBBEAN

Social survey technique and the household surveys

The social survey has been one of the preferred research techniques for study of the social reality, especially since the middle of the twentieth century. Basically it consists of a battery of questions, most of them precoded, that are presented to the respondent by means of an interview or self-administration. Initially used mainly to investigate public opinion, especially for the purpose of forecasting electoral results and learning public views on specific issues, surveys have since diversified, with substantial input from North American sociology, into different areas of the social landscape. Despite the weaknesses that qualitative researchers have amply highlighted, surveys have unquestionable strength as tools for expanding the knowledge of social realities and informing social decision-making.

The extensive use of the survey technique is linked to the parallel development of statistics, of sampling theory, and of increasingly sophisticated computer software for data analysis that have the ability to integrate micro-level data and geographic information systems. The models and multivariate analyses for the purpose of prediction have diverse applications in fields as apparently dissimilar as marketing, publicity, politics, the study of human reproduction, and analyses of people’s living conditions and their level of satisfaction of basic needs. In this last area, the trends toward modernization of the State and decentralization of public services, the targeting of social spending, the need for rapid and informed decision-making, the speed of communications, and the improved technical training of public employees, among other factors, all favor use of the social survey as a technique for collecting data to inform decision-making and action on public policies.
Strictly speaking, any survey that uses a sample of households can be called a “household survey,” regardless of its subject matter. However, this term most often refers to surveys conducted for the purpose of social policy-making. In this document, household surveys should be understood to mean multi-purpose surveys intended to provide input for the design and monitoring of public policies.

Household surveys provide reliable demographic and socioeconomic information during periods between censuses, based on a probabilistic sample of households. In countries that have problems with the coverage and quality of vital statistics or administrative registries, surveys are often the source of more substantial information useful for making indirect estimates on different variables of interest. In countries where vital statistics or administrative registries are of better quality, surveys can be used to check their coverage or content. In some cases, household surveys constitute the only source of information on variables such as health care expenditures, income levels and structure, and household consumption, for example.

In most cases household surveys are designed and conducted by the central statistical offices of the countries. The United Nations, through its Office of Statistics, has produced an extensive literature on recommended procedures for carrying out household surveys. It includes the following points with regard to frequency, specificity, and subjects to be investigated:

♦ Household surveys are conducted with widely varying frequencies. They can be ad hoc or done only once, or they can be periodic or continuous. Periodic surveys are repeated several times during a given period, normally at regular intervals. Permanent surveys have continuous collection of data. In both cases one usually refers to “rounds” of the survey. In periodic surveys each period corresponds to one round, while in continuous surveys the term round normally refers to each period for which separate estimates are prepared.

♦ With regard to specificity, surveys can be specialized, when they address a single subject, or they can be multi-thematic. Either type can consist of one round or more than one. In most periodic or continuous multi-thematic surveys part of the content remains constant from round to round. This core content is combined with specific subjects that vary from one round to the next.

♦ Subjects commonly investigated by household surveys include: (a) basic demographic and social characteristics (age, sex, ethnic group, marital status, and literacy and educational attainment, which are usually treated as independent variables for the purpose of analysis); (b) demographic and social subjects, including components of

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population change (birth rate, mortality, and migrations), other demographic subjects such as family planning, health and nutrition, housing characteristics, condition and activities of special groups (youth, women, older adults); and (c) socioeconomic subjects such as the work force (employment, unemployment, underemployment, income and expenditures, and family businesses (agricultural and non-agricultural).

The Region presents diverse situations with regard to implementation of household surveys in the various countries. These are analyzed in the following section.

The situation in the Region

In Latin America and the Caribbean, conducting household surveys for the purpose of designing and monitoring social policies is a practice that dates to the 1960s. Conceived originally as a way to monitor employment and the level and structure of household income and consumption, the surveys gradually incorporated other subjects, giving rise to the so-called multi-purpose household survey, and more recently, to surveys that measure living conditions, which have become a principal source of data for estimating poverty levels. Use of the surveys has been encouraged based on broad recognition of the need for a socioeconomic information system and the realization of several global and regional initiatives promoted by technical cooperation agencies. These initiatives have included the active participation of the countries, which present different levels of development in relation to these activities.

A milestone in the development of the household survey was a regional seminar held in Mexico City in 1965, in which more than 50 statisticians from 15 countries of the Region participated. The seminar featured presentation of a model for conducting surveys in a fictitious country, prepared by the U.S. Bureau of the Census under sponsorship of the U.S. Agency for International Development (USAID). This model, “Atlántida,” which was conceived basically as a tool for studying features of the work force, provided a foundation for the development of regular programs of demographic and socioeconomic surveys in several countries of the Region. Subsequently, in 1979, the global “Program to Develop National Capacity to Conduct Household Surveys” was promoted by the United Nations as an interagency effort with support from the World Bank and the United Nations Development Program (UNDP). Meanwhile, the countries of Latin America and the Caribbean set up the “Inter-American Household Surveys Program,” whose objectives and goals were established in 1981, and which was merged with the preceding initiative in 1982 (Avendaño and López, no date). In addition, the World Bank implemented the “Living Standards Measurement Study” (LSMS) in 1980, with a view to promoting the collection of high-quality data in the household surveys and improving their use in policy-making. The first LSMS surveys were conducted in Côte d’Ivoire in 1985 and in Peru in
1985–1986. More recently, the “Program for the Improvement of Surveys and the Measurement of Living Conditions” (MECOVI) was set up as a joint initiative of the IDB, the World Bank, and ECLAC. This program, with the direct participation of the countries of the Region, seeks to further the implementation and strengthening of integrated systems of household surveys in order to generate useful and high-quality information about the living standards of the population.

Although almost all the countries of the Region have had some experience with household surveys, the various surveys differ widely in terms of their level of development, their frequency, the subjects emphasized, and utilization of the results. A study that looks at household surveys throughout Latin America concludes that: (a) Government agencies, mainly the central statistical offices, have carried out most of the activities related to household surveys. Support from agencies such as ECLAC, USAID, PAHO, the World Bank, and IDB has been significant. ECLAC has had a pioneering role in this field, beginning its work in the early 1960s; (b) The first workforce surveys gradually incorporated more demographic and social variables such as sex, age, and level of education, conceived as independent variables for the analysis of labor patterns. The number of variables gradually increased, giving rise to multi-purpose household surveys. These surveys typically have three to five parts that cover the household and the demographic characteristics of its members, as well as housing, education, employment and income, and sometimes migration; (c) Geographic coverage is predominantly urban, and there are few national initiatives. Coverage of rural areas is deficient in some cases, either because the surveys are not done regularly in these settings or because the survey instruments are not relevant to that context; (d) The programs vary in frequency, with the majority being quarterly or annual; (e) Some countries have used special modules to investigate sociodemographic subjects of interest. The potential for integrating additional information varies, depending on the designs and sampling frameworks used, and (f) Most of the countries have carried out other initiatives in addition to the workforce surveys, intended to study sociodemographic and economic subjects that are not regularly included. These typically are developed by nongovernmental organizations and carried out only once, and the majority include health, nutrition, and demographic information.

Notwithstanding the different experiences and situations of the Region’s countries with household surveys, the emphasis now is on the need to deepen and improve the technical and analytical capabilities of the countries so they can strengthen or create comprehensive household survey programs and develop initiatives to measure living standards. The point is to identify and characterize the population living in poverty,
information that is indispensable for the design and evaluation of public policies. Within this framework, the household surveys would include as core subjects, in addition to work and income structure, the subjects of consumption, especially of food, as well as housing, sanitation, education, health, and demographic characteristics.

The efforts under way in the field of household surveys entail a review of the methodological procedures used by the surveys and of the subjects covered, the objective being not only to improve the surveys but also to examine possibilities for comparability among countries of the Region. This also includes a review of the content and methodology of the health modules.

**Health modules in household surveys of the Region**

There is only a limited literature that analyzes the health modules of household surveys in the Region. Generally speaking, it shows a varying picture with regard to coverage of health in the surveys, both in terms of its inclusion and in terms of the topics addressed. According to a broad study of household surveys in the Region, coverage of health is not universal and varies in scope. Not all the surveys include questions about reproductive health, for example, while all do ask about the health of all household members, including in some cases specific aspects of child health. According to the same study, a majority of the surveys ask about the occurrence of illnesses and injuries: whether the person sought care, the type of care sought, and whether it was paid for. Some surveys include the cost of care, whether drugs were prescribed, whether they were obtained, and how they were obtained, and some also ask about transportation. Some countries incorporate questions related to specific policies or special conditions of the period under study: for example, the Encuesta Integrada de Hogares of Bolivia included the subject of cholera in the first part of the 1990s. All the countries give the subject of nutrition scant coverage.

In addition to differences in the coverage and content of health questions in the surveys, the study notes differences with regard to the age ranges used to define specific groups. For women of childbearing age, the lower limit ranges from 12 to 15 years, while there is agreement on 49 as the upper limit. Children are sometimes defined as under 5 years old and sometime as under 6.

Differences in coverage of the subject and in the definition and treatment of different indicators and specific groups make it difficult to carry out comparative analyses between countries in a way that supports sustained monitoring. Problems of

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14 An analysis of the methodology used by household surveys to measure child nutrition, especially in relation to anthropometric instruments, is found in Sánchez, María Inés. 1998. Informe sobre nutrición y salud infantil.
comparability exist not only among the countries but also within countries, between
different geographic areas or different time periods. For example, a review of the
questionnaires used in the Encuesta Nacional de Hogares of Peru (ENAHO) in 1995 and
1996 shows little possibility for comparing the results of the two surveys because of
differences in the design of questions and the selection of subjects. Similarly, the lack of
coverage of certain geographic areas limits the internal comparisons. This is a more
serious concern in those countries where coverage of those areas is lacking not only in
certain years—for example, when a rural area is surveyed every two years—but is
deficient over long periods.

There is now broad agreement on the need for comparable indicators between
countries and within countries. However, there is far less agreement as to which
indicators these should be, that is, which subjects should commonly be included in
questionnaires. For example, Leites proposes that the health indicators should apply to all
household members and should investigate aspects of general morbidity as well as
matters pertaining to specific risk groups: women of childbearing age, pregnant women,
infants, preschool children, and school-age children. The author outlines a set of
indicators that she classifies as pertaining to entry, access, and exit: these include the
characteristics of the household, social programs for dealing with the health situation,
access to health care services, and the classical indicators of health outcomes, such as
fertility rates, birth rates, infant and child mortality, and morbidity rates, respectively.
Without underestimating the importance of these topics, it should be noted that the
emphasis is on measurement of morbidity and not of health; this approach would tend to
yield information for policies concerned with curative care rather than with disease
prevention and health promotion. It is known that the difference between the numerator
of a morbidity rate and the total population exposed to that disease does not represent the
total healthy population. Similarly, the rate does not take into account the population
exposed to risk or living in conditions that make them susceptible to certain diseases.
Accordingly, Guzmán points out the need to incorporate variables related to mortality,
morbidity, risk, prevention, protection, and access to health services, as well as the
existence of social problems. These are unquestionably relevant topics to consider when
defining the content of health modules. The next step is to determine which aspects of
these topics to include and how to operationalize them, including the measurement of

16 Cultural differences between countries or within countries may suggest a need to design survey questions differently,
depending on the cultural contexts in which information is being collected. This does not preclude the possibility of
making comparisons between countries or between areas within a country, since the objective is the construction of
comparable indicators. In some cases the same indicators might be constructed in different ways, as for example with
estimates of urban and rural poverty.
17 This study reflects some confusion between variables and indicators and their categories or values. In addition, it
gives rather vague definitions of what the variables and indicators are supposed to mean. For example, it mentions
morbidity rates without specifying the type of morbidity or the age ranges for defining the groups of children and
various components of health. The next chapter discusses the content and methodological approach for the incorporation of health modules in household surveys.

HEALTH AS A COMPONENT OF HOUSEHOLD SURVEYS

Measurement of health using the survey technique

Household surveys can yield valuable information for the design of public policies geared to achieving equity in health. For example, they make it possible to identify specific geographic sectors and sub-populations (defined by socioeconomic status, gender, age, or ethnic group) that present diseases or non-healthy lifestyles, information that can be used to define target groups. Survey data can be used to evaluate the effects of certain programs on morbidity or behavior, and to determine where health services should be located and what characteristics they should have, among other things. Despite these advantages, household surveys have been little utilized by the health sector.

While it is true that the health sector has made scant use of household surveys, it is also true that health has received less coverage in the surveys than other subjects. For example, a review of questionnaires from the Permanent Household Surveys Program in 16 countries, mostly from 1995, states that most of the material deals with housing, sociodemographic characteristics, migration, education, occupation, and income. The study makes no mention of the absence of the health sector, an absence that moreover is relative since: the subject of health is present in at least 8 of the 17 questionnaires reviewed. Although this could suggest a certain bias in the analysis, it is also true that the subject of health has been given less coverage in the surveys than other subjects. For example, a review of 161 household surveys for which the MECOVI program had information in June 1999 revealed that little more than a third, 55 surveys, contained health modules. In short, it appears that the non-utilization of household surveys by the health sector may both reflect and contribute to a lesser interest in including health material on the part of those who design household surveys.

There are several possible reasons for the limited utilization of household surveys by health sector professionals and the apparently low interest in incorporating the subject of health in these surveys. Although a full treatment of this issue is beyond the scope of this report, one of the more important reasons probably has to do with the difficulty of

20 Avendaño and López, s.f.
21 Author’s review of the questionnaires analyzed.
22 Author’s review of the database of MECOVI surveys for the construction of an information system on household surveys in Latin America and the Caribbean that include health subjects.
measuring health, especially if the aim is to reproduce indicators traditionally utilized by the health sector. These include crude death rates, the structure of mortality by age and cause, and, especially, the incidence rates and prevalence of certain diseases, as indicators of the morbidity situation of a population. However, they do not include indirect estimates of infant and child mortality, which are widely used and validated by survey technique.23 At a higher level of complexity, this problem stimulates the search for health status indicators rather than indicators of disease or mortality: that is, for the degree to which a population can or cannot be considered healthy.

These issues are directly related to a subject that appears simpler to operationalize and that is usually covered in household surveys: utilization of health care. In all the countries of the Region the health sector has information on utilization of the health services, including the nature of hospital admissions and discharges, and deaths and their causes.24 The purpose of including health services as a subject in household surveys is not so much to estimate their level of utilization as to indicate behavior related to illness, the need for care, and the degree to which that need is met.25 In determining the need for care, health status is measured by procedures other than traditional medical diagnosis, often based on self-diagnosis or on the individual’s perception, although they may also include a physical examination, anthropometric measures, or a laboratory test. This question is key, because using health information from household surveys requires one to accept as fact a diagnosis that does not arise from or relate directly to medical practice. The apparent exceptions are those cases where the respondent repeats a previous medical diagnosis exactly, but that implies reducing the sample to include only persons who have received some type of formal health care.

Similar considerations apply to the inclusion of questions about health care expenditures.26 It is possible, and in fact common, to estimate household spending on health care through a series of questions about actual expenditures on specific items in a given period of time. This makes it possible, for example, to estimate health expenditures as a share of total household expenditures and to compare these proportions according to income quintiles or other household characteristics. However, while it is possible to determine approximately how much households spend on health care, one cannot know whether that expenditure corresponds to the needs of household members or to what the

23 DHS’s (Demographic Health Surveys), have been used by various countries of the Region as reliable sources for estimating infant and child mortality. The demographic techniques that can be used to indirectly estimate these indicators can also be used with the results of population censuses, and there exists a set of valid questions for addressing this subject.

24 Obviously, the quality, coverage, and availability of this information varies from country to country, and major deficiencies exist.

25 Also potentially useful are data on the characteristics of users of the public and private health care systems, but this is also determined by the need for care or the existence of illness, except as regards health insurance.

26 The term “health expenditures” is frequently used to refer to outlays for medical care, whether preventive or curative. However, the concept of health expenditures implies the need to include not only the expenses of treating or preventing illness, but also those needed to achieve or maintain good health, such as expenditures for basic sanitary services, recreation, house repairs, and food, among other things.
household can afford, without taking account of fluctuations in the need for care, the prioritization of household expenditures, the priority given to meeting the needs of different household members depending upon their productive role, and cultural definitions and practices of health care, among other factors.27

This is clearly a subject of major importance in the discussion of how to measure health variables using the social survey technique. However, the pivotal question seems to be how to measure the health status of individuals. Generally speaking, the measurement of morbidity has been formulated broadly, ranging from objective questions such as the existence of a chronic disease to subjective questions such as a feeling of discomfort; it includes in some cases an examination by a physician or nurse, and in other cases only the respondent’s own report. Between these two alternatives, priority is given to self-reporting, mainly because of the high costs of medical examination. Surveys based on self-reporting have been widely used in Europe; collection procedures include personal, telephone, and mail interviews.28 In Latin America and the Caribbean, the determination of health status in household surveys has also emphasized self-reporting by the respondents, including, in some cases, anthropometric measures, and to a lesser extent, certain laboratory tests.

Although there is agreement on the difficulties involved in measurement, major progress has been made in developing scales for measuring health conditions, and several of these have been validated.29 The great majority use research techniques developed by the social sciences.30 By measuring the physical, social, and mental aspects of health, it is possible to gain a comprehensive picture of an individual’s health status. In practice, however, many surveys focus on general health or on the physical aspects of health.31 Inclusion of the different components of health requires various indicators. The decision on how many indicators to use depends largely on the number of questions that can be included, which in turn is influenced by cost. Nonetheless, in designing household surveys it is also important to consider the scope of the other modules, the total duration of the survey, and the characteristics required of interviewers, among other factors. Whatever the final number of indicators, it is important to maintain a subset of the same questions over time, with a view to monitoring health conditions and the effects of public policies.

27 This is true even when recording expenditures connected with a reported illness, since this may or may not result in care being received.
Incorporation of the different components of health must be done carefully. Ideally, there should be a balance among the physical, mental, and social aspects. A good example is a study on health and lifestyles developed in England, which identified and measured four components of health and constructed an index of general health combining the following elements:\(^{32}\)

- Presence or absence of illness, measured by the response to a list of 16 symptoms such as headaches, colds, and flu, and other common ailments.
- Psychosocial discomfort or well-being, measured by a list of eight symptoms including nervousness, chronic tiredness, and feelings of isolation.
- Presence or absence of disability, measured through a series of questions about the duration and severity of the disability.
- Health status, operationalized through a physical examination under supervision of a nurse, and including blood pressure, Body Mass Index, and respiratory function.

This design is unusual in that it not only balances the different components of health, but also combines self-reporting with a medical examination, which should be highly attractive for health care professionals. This, however, raises costs significantly, hindering possibilities for implementation in the countries of the Region.

Regular collection of data on disease and disability based on individual responses is a longstanding practice in the developed countries: in the United States since 1956, in England since 1971, and in Finland since 1964, for example.\(^{33}\) Such surveys typically collect data on:

- the incidence of acute illnesses or injuries that required medical attention or caused a limitation of daily activities
- the number of days that activities were limited
- limitations to activities resulting from various illnesses or conditions
- absence from work or school
- self-reporting of chronic illnesses and disabilities
- hospital discharges

In addition, some surveys also include a list of symptoms.

\(^{33}\) Bowling, 1998.
As can be seen, the emphasis is on collecting data on disease, following the pattern of the initial methodologies that concentrated on morbidity. Recent studies also reflect this model, but also incorporate information on behavior. For example, the General Household Survey of England usually includes questions about consumption of alcohol and tobacco. The inclusion of questions on behavior and lifestyle is especially important for the design of strategies for disease prevention and health promotion.

A. Kunst and J. Mackenbach (1995), drawing on recommendations of the Third Consultation to Develop Common Methods and Instruments for Health Interview Surveys, carried out by the World Health Organization (WHO) in 1992, propose a series of indicators to monitor health conditions in Europe. The proposed indicators address five areas, the first four taken directly from the consultation:

- Perception of health: classification of general health status as very good, good, fair, poor, or very poor.
- Temporary disability: number of days that usual activities could not be performed because of physical or mental incapacity.
- Long-term disability: questions concerning (a) confinement in bed, chair, or house, and (b) difficulty in walking, getting dressed, bathing, eating, hearing, seeing, and so forth.
- Prevalence of selected chronic conditions: (a) physical health: no recommended instruments are available, (b) mental health: battery of questions concerning dementia, mental retardation, and mental disorders.
- Emotional well-being: general health questionnaire that addresses topics such as worry, concentration, feeling of happiness, self-confidence, and so on.

More recently, Gertler and Rose (1997) proposed a number of content areas and a series of questions for measuring them, to be incorporated in the health module of the LSMS surveys. The proposal consists of a basic module, an extended module, and additional content to be included in other modules of the survey. The target groups would be adults (aged 15 and over), children (under 15 and under 6), mothers (women aged 15 to 49), household, and community.

For adults, the basic module covers self-reporting of health status (self-evaluation of general health status, emotional well-being, and degree of independence in performing basic physical activities), behavior, summary of health care utilization and expenditures,

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36 The responses are given by the head of household or an informant, except in the case of those aged 15 or over.
and health insurance coverage. The extended module includes, in addition, details of health care utilization and expenditures, direct observation of basic physical activities, cognitive evaluation, Body Mass Index located in the anthropometry module, and employee health benefits located in the health module or the employment module.

For children, the basic module includes self-reporting of health status (self-evaluation of general health status), a summary of health care utilization and expenditures, health insurance coverage, and immunization of children under 6. The extended module includes, in addition, details of health care utilization and expenditures, measurement of height/age and weight/height located in the anthropometry module, birthweight and infant mortality in the fertility module, and cognitive development in the education module.

For mothers, an extended module on reproductive health is suggested. For households, an extended module on knowledge of health services providers, to be answered by the female head of household, and on health-related behavior, to be included in the lifestyle module. At the community level, it is suggested that data be collected in the corresponding module.

The proposals of A. Kunst and J. Mackenbach and of Gertler and Rose attempt to cover the different components of health, combining objective questions with more subjective ones such as self-reporting of general health status and emotional well-being. Both are based on statements by the respondents, a point that is widely discussed by those interested in measurement of health conditions and that is usually identified as an unresolved “problem.”

**The “problem” of self-reporting**

An often-cited limitation to the use of household surveys for studying health conditions is that the data depend on statements by the respondents, implying that reported health status may not always correspond to the reality. A report of health problems may

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37 Indeed, this problem is inherent in social survey technique, and can apply to the measurement of various phenomena. The difference in this case, which gives rise to debate about the relevance of the technique, is that it is also possible to measure health status using other valid instruments, such as medical examinations or laboratory tests, that can indicate “objective” health status. It can happen, however, that a person believes his or her health status to be fair or poor and acts accordingly, even though examinations reveal no illness. In such cases it must be asked: What is this person’s “objective” health status? Are we talking about physical health or mental health? Is it possible to separate the two? These questions further complicate the subject and require profound reflection that is beyond the scope of this paper. Although the indicators used in surveys should cover all these aspects, it should be recognized that, in this case, there exist alternative valid instruments that can provide better measurement, at least of physical health. By contrast, no such alternative instruments are widely accepted for determining, based on a population sample, such questions as “objective” household consumption, the “objective” intention to cast a certain vote, the “objective” level of prejudice, or the “objective” preference for a certain medium of social communication. Even the development of methods for the correction of reported age—when age can be considered an objective fact—recognizes the problems inherent in collecting information from self-reporting.
reflect not only the objective existence of illness and the subjective experience of the problem, but also other factors such as a diagnosis made previously by a physician, the subjective interpretation of that diagnosis in terms of the language used in the survey questions, a mistaken recollection of health problems, or a tendency to complain. It is also affected by socioeconomic and cultural aspects of the definition of health and illness. For example, some studies have found that respondents with low educational levels are less likely to report a chronic illness, which could underestimate the extent of inequalities in chronic diseases.\(^{38}\)

At present, there would seem to be no satisfactory solution for the problems associated with self-reporting of illness. In general, it is suggested that those who interpret the results should assume that part of the apparent inequalities in reported morbidity can be attributed to different tendencies in reporting. The size and direction of this bias is open to question. Therefore, a number of indicators should be used and efforts should be made to develop indicators based on questions that leave less room for bias.\(^{39}\) This is especially important for the study of inequity in health, because the differences in health reporting may be associated with differences in the independent variables that shape varying situations in regard to perceptions of ill health. Thus, along with the search for better indicators there should be a thorough exploration of these relationships, with the greatest possible number and combinations of independent variables or macrodeterminants.

Similar precautions should be taken when analyzing indicators such as limitation of daily activities or confinement in bed because of illness. These indicators directly measure behavior related to illness and indirectly reveal the existence and seriousness of the illness. However, differences in behavior during illness may reflect not only differences in the actual severity of health problems but other factors as well, such as social attitudes about accepted behavior during illness or financial pressures to continue daily activities.\(^{40}\) As in the preceding case, analysis of these indicators should consider the influence of these factors on the differences found, also factoring in the variables of sex and age.

**Conceptual frameworks and measurement**

An essential condition for the measurement of any social phenomenon is the connection between conceptual definitions and operationalization of the variables, or what is known as isomorphism between the theoretical and empirical levels. In the field of health, this implies measurement of its physical, social, and mental aspects. In practice, however,

many surveys focus on general health or on the physical aspects of health. Beyond the procedures legitimized in practice, the definition of health as a “complete state of physical, mental, and social well-being,” formulated by WHO and widely accepted, does not provide a framework for satisfactorily defining health status or “outcomes.” Obviously, the attempt to construct valid instruments based on weak conceptual definitions is a sterile exercise: how can I be sure of measuring what I really want to measure if I have not defined clearly what I want to measure? This issue warrants deeper reflection that should come before, or at least during, the effort to perfect instruments for measurement.

Work in this area has sought to define health in relation to the broader concept of quality of life, with a series of instruments being developed to measure this. One such initiative is the Quality of Life Group created by the World Health Organization (WHOQOL Group). This group defines quality of life based on the individual’s perceptions and relation to his or her environment. Quality of life is defined as “an individual’s perception of their position in life, in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person’s physical health, psychological state, level of independence, and social relationships, and by their relations to salient features of their environment.” This definition has provided the basis for development of an instrument that can be used to measure quality of life in a variety of sociocultural contexts.

The introduction of the concept of quality of life calls for a multidimensional measure of well-being that reflects aspects of the person’s physical, mental, and social health in relation to their physical and sociocultural environment. According to this definition—which in any case seems no less broad than the definition of health as a complete state of physical, mental, and social well-being—a person’s level of well-being reflects a set of conditions that affect their perception of their position in life, mediated by their physical health, their psychological state, their level of independence, their social relationships, and the environment in which they live. Beyond the question of whether or not to adopt such a broad definition, there is the problem of determining the dimensions of this well-being and the factors that would produce a greater—or lesser—degree of well-being. One possible option is to group these factors around the concept of “living conditions,” an approach that is clearly behind the analyses of equity in health that are currently under way.

The analysis of equity in health requires precise definitions of the concepts of health and equity and of their relation to living conditions, in order to guide the measurement of health inequalities and the interpretation of the findings. The affirmation that living conditions have an impact on the health status of the population, that the health status of the population affects living conditions, that health is a component of living conditions, or that the interrelationships of different sectors, among them health, shape living conditions, implies different conceptual models of analysis and the use of different statistical techniques.\textsuperscript{45,46}

In short, the measurement of health is a complex matter, and there is a need to resolve several questions that have not yet been answered satisfactorily. The task of incorporating health into household surveys is more difficult still, because it is necessary to work out its relation to the other subjects investigated, and, above all, to establish the legitimacy of an approach that seems to be not well accepted either by health sector professionals or by those who work with household surveys. The following section presents an overview of selected works concerning treatment of the health module in household surveys of the Region.

**THE HEALTH MODULE IN RECENT HOUSEHOLD SURVEYS**

**Methodological procedures**

The analysis describes and compares the content of health modules in a group of household surveys conducted recently in selected countries of the Region. The questionnaires analyzed and the criteria for analysis are described below.

**Questionnaires analyzed**

In order to examine the design of health modules in the questionnaires of household surveys in the Region and their potential for analysis, 13 household surveys conducted recently in 11 countries of the Region were selected for study. Those selected were not only recent but also of better quality than others in the Region, either because they were supported by regional initiatives—such as the Program for the Improvement of Surveys

\textsuperscript{45} Although there are frequent references in the literature and in public discourse to the “measurement of inequities,” inequity cannot be measured directly. Inequality, on the other hand, can be measured directly because it refers to a fact: to be equal or unequal in relation to a given characteristic. “Inequity” implies the existence of an inequality that is unfair, keeping in mind the causes of the inequality. Its measurement thus implies agreement not only on what is just and unjust, but also on “degrees” of justice or injustice.

\textsuperscript{46} An interesting discussion of the concept of health and its relation to living conditions is found in Samaja, J. 1994. Las condiciones de vida y la salud. PAHO Report. HDP/HST.
and the Measurement of Living Standards (MECOVI) of the World Bank, IDB, and ECLAC, or the Living Standards Measurement Study (LSMS) of the World Bank—or because they were part of consolidated national initiatives. All the questionnaires analyzed contain a health module, are multi-purpose, have national coverage, and, in general, can be disaggregated at lower administrative levels. Furthermore, their databases are easily accessible or will be very soon.

Of the household surveys included in the study, five are part of the MECOVI program, four belong to the LSMS program, and four correspond to national initiatives (table 1). Among the latter, the Encuesta de Caracterización Socioeconómica (CASEN) of Chile is part of a regular program that has been carried out since 1985, keeping an almost constant structure. The Pesquisa Nacional por Amostra de Domicílios (PNAD) of Brazil is also part of the regular survey program of the Instituto Brasileiro de Geografia e Estatística (IBGE), except that the questionnaire analyzed (1988) includes a special health module. The surveys that are part of the MECOVI program also belong to the regular programs of the statistical institutes, but their questionnaires and/or implementation have been substantially improved under the auspices of this program. Among those that are part of the LSMS program, the Encuesta de Condiciones de Vida of Ecuador and the Encuesta Nacional sobre Medición de Niveles de Vida of Nicaragua correspond to the second and third application respectively, while the Encuesta de Niveles de Vida of Panama is the first to be carried out under this program in that country. Twelve of the 13 surveys were carried out in 1997 or later.

Areas of analysis

In order to define the areas to be analyzed, the questionnaires were first reviewed to identify the following:

- size of the health module and its relation to the other subjects investigated
- morbidity
- utilization of health services
- health care expenditures

The analysis centered on describing and comparing the form in which these aspects are addressed in the questionnaires. Additional information on each survey was not used, which raises the possibility that certain questions may have been assigned objectives or definitions different from what was originally intended. Although this clearly limits the analysis, in a sense it reproduces the real conditions under which investigators use the databases generated by these surveys: in most cases, the definitions of the variables
identify the question on the questionnaire or refer to the operational definitions without specifying the nominal definitions. This leads investigators to define their own conceptual meanings for the variables analyzed. This in turn can produce definitions that differ from those proposed initially, or differing conceptual interpretations of a single variable, or—in extreme cases but not unknown in some of the current reports—to investigation of test hypotheses whose theoretical support is far from valid.47

These problems unquestionably require attention from those who work in the field of household survey design. With the issues as yet unresolved, the methodology for analysis of the questionnaires used in this study only alludes to the issues addressed and does not identify specific variables for each of the questions analyzed.

Analysis of the questionnaires

Size of the health modules and their relation to other subjects

One way to assess the importance assigned to the subject of health in the survey questionnaires analyzed is to compare the number of health-related questions to the number of questions on other subjects. For this reason, counts were taken of health-related questions and of questions dealing with education and training, employment, housing and home furnishings, income and other economic activities, consumption, sociodemographic characteristics, and other subjects.

The total number of items in the various questionnaires varies, ranging from 100 in CASEN of Chile to 708 in PPV of Brazil. The majority of the questionnaires contain between 200 and 400 items (table 2). The counting of items respected the numeration of the questionnaires, meaning that a question subdivided into several parts in one questionnaire might correspond to several questions in another. This implies that, strictly speaking, the comparison of the number of items in the questionnaires is for reference only, allowing an idea of the approximate similarities or differences in size.

Without a doubt, the size of the questionnaires is directly related to the efficiency of processes for collection, processing, and analysis of the data. However, size by itself

47 It is worth asking how much of the practice of formulating questions for household surveys involves the operationalization of variables previously defined in nominal terms and how much involves operationalization of variables whose nominal definition is implicit and assumes consensus among those formulating the questions. It is likely that most is of the latter type and that the task of formulating conceptual definitions based on the questions would bring the formulators to definitions different from what is being measured, or to indentify different variables for a single question, among other results. A necessary step in the improvement of household survey questionnaires is precisely to arrive at a conceptual definition of each of the variables studied and to make clear the process for construction of the indicators. This material should accompany the databases, regardless of whether the investigator decides to generate other indicators.
does not reveal anything about the measurement procedures or the reliability and validity of the instruments. Nor does it indicate the diversity of the subjects covered or how deeply they are explored.

The subjects of health, education and training, employment, housing and home furnishings, and sociodemographic characteristics are present in all the questionnaires, but income and consumption are not. These modules contain the macrodeterminants likely to be incorporated in the analysis, allowing the construction of various indicators.

Some questionnaires have special modules that relate to situations of national importance. The Encuesta de Desarrollo Social (EDS) of Argentina includes a module on older adults, the PNAD of Brazil includes one on child labor, the Encuesta Nacional de Calidad de Vida (ENCV) of Colombia includes one on child care, the Encuesta de Hogares de Propósitos Múltiples (EHPM) of El Salvador includes one on public safety and one on participation of fathers in the education of their children, the Encuesta Nacional sobre Medición de Niveles de Vida (ENMNV) of Nicaragua includes one on the use of time, and the ENAHO of Peru includes a module on benefits of social programs.48

The relative importance of the health module in the questionnaires also varies, ranging from 8 percent in the EHPM of El Salvador to 33 percent in the PNAD of Brazil. The range in the majority of the questionnaires is from about 10 percent to 15 percent. Only the PNAD of Brazil and the EDS of Argentina give greater importance to the subject of health49 (table 3). In general, the subjects of employment and housing have greatest relative weight in the questionnaires while health is in third or fourth place, above education and training.

Differences in the relative importance of the subjects depend in part on the original purposes of the household surveys. These purposes determine the inclusion of a subject and its depth, which in turn affects the number of questions devoted to that subject. However, another part of the differences can be attributed to the particular characteristics of the subjects. For example, the measurement of consumption would require more questions than the determination of where childbirth took place, in order to obtain, in each case, a single variable. The situation would change if there were also a need to find out whether the delivery was normal or by cesarean section, where previous deliveries took place, the cost of care, the person or team that attended the delivery, and evaluation of the quality of care, among other things—questions whose inclusion would increase the size of the health module.

48 “Module” refers to a section of a questionnaire that addresses a particular subject and is defined explicitly. The analysis of the subjects treated in the questionnaires adhered to this definition.

49 The PNAD of Brazil addressed health in a special module, that is, as a subject to be investigated in depth in that round of the survey.

50 Obviously this also reflects the skills and practices of whoever designed the survey.
An analysis of the purposes of the surveys analyzed or of the number of questions needed to measure each variable is beyond the scope of this report. This analysis could help to explain the relatively minor importance accorded to the subject of health in the questionnaires and relates to the discussion not only of the subject’s importance, but also of the special problems involved in its measurement. Strictly speaking, the question of what the relative weight of the health module should be gains significance when the survey is intended to measure living conditions. This discussion centers both on the importance of health to living conditions and on the importance of designing policies to improve health conditions as an anti-poverty strategy. Further research is needed to explain the lesser importance accorded to health in relation to the other survey subjects.

A look at the internal structure of the health modules reveals differences as regards the inclusion and definition of target groups for responses to specific questions. The 13 questionnaires analyzed contain a battery of questions that apply to all members of the household. Twelve of the questionnaires have a module or a battery of questions for women of childbearing age, designed to measure aspects of reproductive health, and 11 specifically address child health. The importance of these subjects in relation to the overall health module varies. In some cases nearly half the items concern child health; this subject usually ranks first in terms of the number of items, followed by items concerning all household members and items concerning reproductive health, in that order51 (table 4). This pattern reflects the quest for information to inform the design of strategies to reduce infant and child mortality rates, which remain high in several of the countries analyzed.

Target groups for the questions on reproductive and child health are defined differently in the different questionnaires. For reproductive health, the target groups are women aged 15 to 49, 13 to 50, 12 to 49, 15 to 45, and 15 or older. No questionnaire considers the reproductive health of men, and only the PNAD of Brazil includes women beyond the generally accepted upper limit of the childbearing years (49). However, the items on this questionnaire are designed to collect information that can be used to arrive at indirect estimates of mortality. Generally speaking, all the questionnaires seek information on the most traditional aspects of reproductive health, those concerned with reproduction and with women’s role in that process. This perspective was redefined in the International Conference on Population and Development held in Cairo in 1992, a redefinition that was adopted by consensus of the participating countries.

In the case of child health, the questions refer to children under 5 or 6 years of age. Only the ENMVD of Nicaragua also contains specific questions about children under 3. The questions typically ask about diarrheal diseases and respiratory diseases and the

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51 In some questionnaires certain questions located in the reproductive health or fertility modules are intended to collect information about child health, so these items were subtracted from the total number for reproductive health and added to the total for child health.
care of these illnesses, about breast-feeding and nutrition, and, in some cases, about anthropometry.

The questions directed to all household members are usually answered directly by persons over 15 years of age and, for younger children, by a key informant; such a person can also answer for persons over 15 who are absent at the time of the interview. A preliminary review shows that these items typically address the subjects of morbidity, utilization of health services, and health care expenditures. The following sections describe the ways in which these matters are addressed.

**Morbidity**

The title of this section accurately reflects the emphasis of the questionnaires analyzed: in general, they measure morbidity and not the health status of the population. In one way or another, each seeks first to identify episodes of illness or injury that required medical care, and subsequently links such events with the search for care and the utilization of health services. The result therefore estimates the degree to which the need for health care was met, when need is indicated by the existence of illness or injury.

All the questionnaires ask whether there has been an episode of illness, an ailment, or an injury in the preceding period. The reference period varies: it may be the last month, 30 days, two weeks, four weeks, or three months. Although it cannot be assumed that the respondent will adhere precisely to the dates specified, the length of time influences the type and quantity of events that the questionnaire can record: longer periods make it possible to include more events, but have the disadvantage of being affected by recall bias, which is less likely when the period is shorter. Beyond this effect, the probability of suffering an occasional ailment is very high in a longer stretch of time, and the questionnaire needs to differentiate clearly between such passing discomfort and more severe types of illness or injury.

The classification of such episodes is also handled in various ways. Some questionnaires offer a more or less specific list of symptoms or illnesses, while others suggest broad categories such as illness, injury, surgery, dental problem, or other problem. Some record whether or not an event took place, without specifying the type; while in still other cases the respondent is asked to name the illness, which is written in. The extreme case is CASEN in Chile, which lumps together illness, injury, and childbirth, and records whether or not care was received, making it difficult to carry out an analysis of morbidity. For those questionnaires that present lists of diseases or symptoms, the content differs in each case, but all focus more or less specifically on the

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52 This is the case in the ECV of Ecuador. However, the interviewer has to precode malaria with a 1 and all other illnesses with a 2. It would be interesting to know if there was a later codification and its results.
physical aspects of health. In general, dental health is not among the alternatives offered, and it is assumed that the respondent will only declare one or two illnesses: the most recent or the most important.

Seven of the 13 questionnaires analyzed ask whether usual activities had to be limited because of the illness or injury, and for how long. This helps to establish the severity of the illness or injury and measure the impact of health problems on normal daily or productive activities. However, the limitation of usual activities depends to a great extent on socioeconomic and cultural factors that define both the practical possibility of limiting one’s activities and practices associated with health care. Analysis of this subject should not ignore these factors.

The presence of chronic illness is investigated in four questionnaires: EDS of Argentina, PPV of Brazil, PNAD of Brazil, and ENCV of Colombia. The first two present a list of chronic diseases but ask the respondent to mark only one, the most important. The Colombian questionnaire does not specify any disease but asks only whether the respondent has or does not have a chronic illness. These three questionnaires ask explicitly about a “chronic” illness, which requires the respondent not only to know this term but also to have received it as a medical diagnosis—a situation less and less likely as one moves down the socioeconomic ladder. The PNAD of Brazil, on the other hand, names a series of chronic diseases and asks the respondent if he or she has or does not have each of them. In addition to avoiding problems associated with the concept of chronic disease, this strategy has the advantage of making it possible to record the presence of more than one chronic disease, a not infrequent situation in the case of older adults, especially the poor. However, this also implies the existence of a previous medical diagnosis.

Three of the 13 questionnaires ask about hospitalization in the past year and the reason for it: EDS of Argentina, PNAD of Brazil, and ENCV of Colombia. The first two include as options reasons related to mental health: “depression” and “psychiatric treatment,” respectively. The three questionnaires offer broad categories of reasons for hospitalization, including “injury,” “surgery,” “disease,” “treatment,” or obstetrical delivery, making it difficult to carry out specific analyses.

Self-reporting of the respondent’s general health status is part of three questionnaires: PSPV of Brazil, PNAD of Brazil, and ENCV of Colombia. In general, they ask respondents whether they consider their overall health to be very good, good, fair, poor, or very poor. This implies a shift away from measurement of morbidity and toward measurement of general health in terms of the respondents’ subjective perceptions. Even though the meaning of “health” in this context is subjective and can thus take on different dimensions, the question estimates the degree to which the person defines his or her health as a problem. An interesting element to add would be the respondent’s perception of his or her current health status in comparison with a previous
reference period. This could reveal, for example, intergenerational and socioeconomic differences in the perception of changes in health status over time.

The subject of disability is mentioned in only two questionnaires: EDS of Argentina and PNAD of Brazil. The first asks directly whether the respondent has a motor, sensory, or mental disability. The second contains a section that measures the physical mobility of household members aged 14 or over by asking about the degree of difficulty in carrying out certain activities and basic body movements and whether the individual can move around independently. The inclusion of this subject is important in terms of estimating the demand for disability care and rehabilitation services in relation to socioeconomic status, age, or gender. Access to adequate rehabilitation services can enable persons with a disability to engage in some form of productive activity or to become more independent in daily living. It is especially important to identify such cases in poor households, which are less able to afford access to disability care and rehabilitation services.

A subject that does not come under the heading of morbidity but is related to it is that of behavior and habits. This subject is present in four questionnaires: PPV of Brazil, CASEN of Chile, ECV of Ecuador, and ENV of Panama. The first asks whether the respondent plays sports, how often, and other details. The second asks whether the person smokes and how much. The third includes these two topics and also asks about consumption of alcohol. In addition to all these items, the last survey mentioned adds questions about television viewing habits and hours devoted to sleep. The inclusion of these subjects is relevant for the design of strategies of disease prevention and health promotion.

Utilization of health services

The questions that address the utilization of health services are connected, in general, with previous statements about illness or injury, including chronic illness. This makes it possible to compare the need for services with the actual utilization of services and establish the degree to which such needs are met, in relation to different socioeconomic or demographic variables. The difficulties in measuring the existence of illness or injury, including chronic illness, would have direct effects on this estimate and could introduce bias in various directions.

For those respondents who report an illness or injury during the period of reference, almost all the questionnaires ask whether the person sought care for the problem, from whom and/or where they sought care, or why they did not seek care. The alternatives presented usually include the public and private health services and health professionals, as well as pharmacies and pharmacists, healers and/or centers of alternative medicine, family or social networks, and self-treatment. Only three questionnaires—PPV
of Brazil, ENV of Ecuador, and ENV of Panama—also ask these questions of persons who do not report an illness or injury but do report having sought some type of health care. Unlike the others, the PNAD of Brazil asks all respondents if they sought any type of health care in the last two weeks, and asks the questions of those who respond affirmatively. The PPV of Brazil also poses the questions to persons who report having a chronic illness, and includes questions about the average and most recent medical visit or examination. The ENCV of Colombia asks respondents who report a chronic illness whether they seek care periodically and whether they did so in the last 30 days.

Strictly speaking, more complete information about the type of care utilized would be obtained by asking questions of all respondents who required some type of care, whether or not they report an illness or injury during the reference period. This makes more sense in light of the difficulties of measuring these events and does not preclude the possibility of estimating the degree to which the need for care was met by analyzing those particular cases. Furthermore, inclusion of the reason that care was sought would point to cases of morbidity not revealed by the previous items; this is possible in the PPV and PNAD, both of Brazil.

These issues underline the importance of defining the objectives that guide the choice of questions. If the intent is to learn what type of health care services were utilized and some characteristics of this utilization, questions should be asked of all persons who received any type of health care. If the objective to estimate the level of satisfaction of the need for care, questions can be limited to those respondents who reported an event that serves as an indicator of the need for health care. These two purposes are not mutually exclusive and are both very important to include in the questionnaires.

In addition to the type of health care utilized, 8 questionnaires ask for the amount of time that the respondent had to wait for treatment, 7 for travel time from home to the place of care, 5 for the means of transportation used, and 5 for the number of consultations. These questions are asked with regard to the last consultation done. The analysis of the results should take this into account and examine the different implications depending on the type of care sought: waiting time, travel time, and means of transport all have different implications depending on whether the visit was for an emergency, for a specific illness or symptom, or for preventive care. None of the questionnaires allows this differentiation.

Concerning the care received, 7 questionnaires ask whether drugs were prescribed, whether they were obtained, how they were obtained, or why they were not obtained. The same number asks whether the person was hospitalized and the characteristics of the hospitalization, and 3 questionnaires ask about examinations or laboratory tests. Several inquire about the need for direct payment or coverage by social security or some type of insurance.
Questions about affiliation in some system of social security or health insurance are included in 11 of the 13 questionnaires analyzed. The PNAD of Brazil also asks about the type of insurance, whether the person is the policyholder or a dependent, the coverage of different events, and the respondent’s evaluation of their own insurance. The ENCV of Colombia asks the reason for not being insured, the insurance institution, the entity or person who is responsible for payment, and the possession of complementary health insurance. The ENHMV of Nicaragua also asks what institution covers the health insurance, while the ECH of Bolivia asks respondents whether they know about specific free services included in the basic health insurance offered by the government.

Questions about the quality of care are included in only 3 questionnaires: PNAD of Brazil, CASEN of Chile, and ENCV of Colombia. The first requests an evaluation of the most recent care received and the most recent hospitalization, while the last requests an evaluation of the timeliness and quality of the most recent care received. CASEN inquires about the timeliness of the most recent medical care (illness, obstetrical delivery, or injury), and persons who have visited a hospital or public clinic in the last two years are asked if they have noticed any improvements in the general infrastructure, equipment, bathroom cleanliness, waiting rooms, or treatment by the staff. Including an evaluation of the quality of care in terms of its different components is an aspect of vital importance that makes it possible to compare, for example, perceptions of the population concerning the delivery of public and private health services in relation to various socioeconomic, gender, ethnic, or age characteristics.

**Health care expenditures**

The subject of health care expenditures is of great interest to those who are working to analyze equity in health. In addition to allowing an estimate of what are known as out-of-pocket expenses, the data collected by household surveys can highlight the differential impact of health care for household members on total household budgets, and promote greater investment in programs targeted to specific geographic areas or to groups of households defined by income, composition, head of household, ethnic group, or other factors. When the data are broken down further, it becomes possible to analyze individual expenditures in relation to a set of attributes, identifying households that require more health care not only by the weight of their health care spending as a share of their total spending, resulting from the total health care expenditures of all household members plus the health expenditures reported as total household spending in the expenditure or consumption modules, but also by the individual characteristics of such members. In this way researchers could determine, for example, that households that require more care are distinguished not only by certain attributes of the whole household but also by the specific attributes of one or more members.
It is known that gender and age help to determine the need for more or less spending on health care: older adults, especially women, or women of childbearing age. There is also a known association between certain occupations and health problems that require care. The fact that a person has one or more of these attributes does not in itself establish the impact on total household spending. From another angle, the level of income of households is related to their composition, generating differential demands for health care. Fertility tends to be greater in poor households, which implies a higher demand for reproductive and child health care. However, these needs can be met at relatively low cost and there exist an array of public programs providing this kind of care, in contrast to, for example, the care of chronic or degenerative diseases in older adults, an age group with a greater presence in non-poor households. In short, the combination of a household’s characteristics and the characteristics of its members can help to identify more precisely those groups that have unnecessary, avoidable, and unjust—and therefore inequitable—conditions in their health care expenditures.

This subject is complex, because in analyzing the satisfaction of health care demand, individual demands are combined at the level of the household. No account is taken of the differential monetary contributions of household members and how this influences expenditure decisions, nor of decision-making about expenditures and its link to power relationships within the household, the prioritization of health care in relation to the productive role of household members, or cultural definitions of health care and the division of these tasks among the members, among other factors. These issues could be incorporated in a household survey or studied through another research technique, and they apply not only to health expenditures but also to expenditures on education, housing, food, recreation, and other purposes, and to the ranking of these expenditures. Furthermore, there are difficulties in working with the household as a unit of analysis, which researchers have tried to solve by introducing the concept of family units, or by criteria to determine the head of household, the individual who conditions most of the characteristics attributed to members of the household as a whole. What matters here is that the analysis of health care expenditures using household surveys makes a number of assumptions concerning the household. Thus, a comparison of these expenditures as a proportion of total expenditure according to income or other variables should only be done in relation to total household spending on health in light of such assumptions. The next step is to analyze the characteristics of household members in those households where this proportion is greater. Analyses that focus on the weight of individual expenditures as a proportion of household expenditure—for example, the differences between the expenditures of men and women—lead to debatable conclusions.  

53 It is no secret that the majority of households include men and women and that men, given the gender discrimination in the labor market, usually contribute a greater share of total household income. This means that, regardless of whether women or men account for more health care spending, it is the men who tend to pay most of these costs. Most of the difference between the health care needs of men and women is attributable to biological rather than gender differences, as is widely understood. What is of interest is the degree to which gender differences imply differences in the level of satisfaction of health care needs, or in health care. In this case, for example, one could analyze the differences in the
The questions designed to measure health care expenditures are located in the general expenditures module and/or in the health module. In the first case the questions deal with total household expenditures, while in the second case the questions ask about spending by each member of the household individually. Of the 13 questionnaires analyzed, 11 ask about the amount spent on health care. Of these, 4 locate the questions only in the health module, while 7 place them in both modules. EDS of Argentina and CASEN of Chile inquire only whether the care had to be paid for and the participation of public or private services in this expenditure, without asking the amount of the payment or the share of the total expenditure that was paid by each household member.

The questions on expenditures use different reference periods. The questions located in the health module ask about the last 4 weeks, 30 days, month, 3 months, or 12 months. The items in the expenditures module ask about the last 30 days, month, 3 months, 6 months, or 12 months. These differences exist not only among the various questionnaires but also, in six of the cases, within questionnaires. The analysis therefore needs to include some procedure for comparing expenditures in a single period, which should correspond to the period defined for the estimate of total household expenditure. Only the PPV of Brazil, ECV of Ecuador, and ENV of Panama use the same period in the health module and the expenditures module. The ENHMV of Nicaragua and ENAHO of Peru use the same period in the health module, the only module containing questions about all expenditures.54

The questions on health care spending in the health module apply to all members of the household in 5 questionnaires, while 4 ask these questions only of those persons who reported an illness or injury. Two questionnaires, ENV of Panama and ECV of Ecuador, also include persons who did not report an event but who said they had consulted a health professional or source of alternative medicine.

The questionnaires that connect questions about spending exclusively to questions about the occurrence of illness or injury during the reference period and about actions to seek care for these events include EHPM of El Salvador, EIH of Paraguay, ENAHO of Peru, and ENHMV of Nicaragua. The latter asks only about expenditures for the last time care was sought for such an event, but it incorporates a question on total health care spending by the respondent, which would make it possible to include expenditures made during the period of reference but before the most recent event.

54 The ENHMV of Nicaragua includes in the expenditures module a question about spending on health insurance, life insurance, and other types of insurance in the last six months. However, the construction of the question does not make it possible to know what part of the total corresponds to health insurance, or even if health insurance was included.
Beyond the problems of measurement inherent in both subjects, as described above, this approach only captures expenditures associated with the particular reported episode of illness or injury. This does not necessarily represent total health expenditures, which may also include preventive care or health actions taken for other reasons. This underestimation is worsened by the exclusion of those respondents who did not report an illness or injury but who may nonetheless have had health expenditures, such as for preventive care, eyeglasses, hearing aids, or orthopedic devices, among other things. The EHPM of El Salvador and the EIH of Paraguay allow for capturing some of these expenditures through the incorporation of certain health-related items in the expenditures module. However, these items correspond to total household expenditures, making it impossible to know which member of the household originated them. Furthermore, in the EIH of Paraguay it is not clear whether the respondent should exclude or include in the declaration of these expenditures, which correspond to the last 12 months, those expenditures within the last three months that were reported in the health module.55 The EHPM of El Salvador asks for total health expenditures in the last six months and, paradoxically, says to exclude spending on education and health at the beginning of the respective item that also includes other services and articles.

Applying the questions on health care expenditures to all members of the household, and not only to those who reported illness or a medical consultation during the reference period, makes it possible to include not only those expenditures that correspond to curative care but also those for preventive care, self-treatment, or other health actions unrelated to the presence of illness or injury. Although it could be argued that these strategies have different objectives—to record the level and impact of spending on care for illness or injuries, or to record total spending on health care—the ultimate objective is to estimate total expenditure. This is not only because of the importance of the sector, but also because health care spending is part of the total spending of households and knowing its extent is indispensable for the determination of poverty levels utilizing the consumption variable. Within this framework, it is perfectly possible to examine the magnitude or economic impact of illness or injury, including specific types, using the corresponding cases.

Different questionnaires specify different items in asking for the amount of expenditures. The questions in the health module usually ask about spending on medical consultations, drugs, examinations, and hospitalization. To a lesser extent they include spending on prostheses, dental treatments, eyeglasses and the like, as well as expenditures

55 It is likely that the explanation can be found in the Interviewer’s Manual or in other survey documents. However, it is not clear why these items are duplicated, apart from the different reference period, and it can be assumed that they have different purposes: to estimate expenditures for treatment of illness and for expenditures on health care. Questions about health care expenditures located in the expenditures module apply to all members of the household and not only to those who reported an illness, thus including preventive consultations and other health actions, which are also separately listed on the form. Estimated spending based on these questions would be more likely to approximate total expenditures of the household, even though the longer reference period would be more subject to recall bias, especially in relation to drugs. This strategy does not allow differentiation of individual contributions to total household spending.
for transportation to the health care site and for home care. The questions in the expenditures module tend to ask about total household expenditure for health insurance and, less often, for drugs, examinations, and/or consultations.

CONCLUSIONS AND RECOMMENDATIONS

1. This document describes the contents of the health modules of questionnaires used in household surveys conducted recently in several countries of the Region. The objective is to show their potential for use in the analysis and monitoring of equity in health. The document is based on the following fundamental assumptions:

♦ The concept of equity in health refers to the existence of unnecessary, avoidable, and unfair inequalities in the health conditions of the population, inequalities that are rooted in social, economic, cultural, and environmental differences. The concept of equity has a moral and ethical dimension, which leads to different definitions of what should be considered “equitable” or “just.”

♦ There is wide agreement that the health conditions of the Region’s population are characterized by inequity. This raises two important issues for public and health sector policies: (a) it impels the definition of some measure of social justice and a search for ways to reduce or end situations of inequity by confronting the factors that cause it, and (b) it shifts the emphasis from the direct determinants of health conditions toward the factors that condition these determinants, which can be defined as macrodeterminants.

♦ This emphasis on the macrodeterminants of health implies the need to move from sectoral to intersectoral actions, and to consider the effects that actions in other sectors may have on health conditions. Intersectoral work is key because the worst health conditions are related to poverty, and the struggle against poverty requires consensus-building and intersectoral coordination.

♦ The relationship between health conditions and poverty raises the question of whether it is possible to achieve equity in health as long as some level of poverty continues. The notion of equity implies accepting a certain degree of inequality, and so the task would consist of building an unequal society that does not define or generate poverty conditions. This comes back to the moral and ethical aspects of the concept of equity and warrants deeper reflection, especially on the part of those who design policies aimed at achieving equity in health.

♦ The achievement of equity in health requires empirical evidence for policy-making and decision-making. The macrodeterminants of health conditions have not been incorporated in the sources of information that are in common use in the health sector. This diminishes the capacity for policy-making and limits the possibilities for
carrying out assessment and monitoring at the national level or in specific geographic areas.

♦ One useful source of data that can provide empirical evidence on health and its macrodeterminants is the household survey. However, these surveys have been little used by the health sector; this likely reflects the belief that the surveys do not permit construction of the traditional indicators, as well as the minor importance assigned to the macrodeterminants of health conditions. Whatever the reasons, there is a clear need to look for available secondary sources of information and to promote their use in the design, monitoring, and evaluation of public policies.

2. *The conducting of household surveys in Latin America and the Caribbean is a practice of growing importance. The principal characteristics of this technique, of its implementation in the Region, and of the health modules contained in the surveys are as follows:*

♦ Household surveys provide demographic and socioeconomic information and are widely used in countries that have, and in those that do not have, problems with the coverage and quality of their vital statistics or administrative registries. In some cases the surveys constitute the only source of information on variables such as health care spending, income levels and structure, or household consumption.

♦ The practice of conducting household surveys in the Region dates to the 1960s. They were originally designed for monitoring employment, income levels and structure, and household consumption; recently, they have been geared to the measurement of living conditions as a principal source of data for estimating poverty levels. Their implementation and promotion is based on recognition of the need for a system of socioeconomic information and on the realization of global and regional initiatives promoted by technical cooperation agencies, with the participation of the countries.

♦ All the countries of the Region have some experience with household surveys, but they differ in terms of the level of survey development, how often surveys are done, how the results are used, and which subjects are covered. There is currently an emphasis on the need to deepen and improve the relevant technical and analytical capabilities of the countries to enable them to strengthen or create comprehensive household survey programs and develop initiatives to measure living standards. The core of the household surveys consists of questions about employment and income structure, consumption, housing, sanitation, education, health, and demographics.

♦ Not all the household surveys in the Region include the subject of health, and those that do give it varying coverage. When a health module is included, it always includes questions about the characteristics of all household members, as well as, to a lesser extent, reproductive and child health. The age ranges specified for the groups concerned with the latter subjects (women and children) are different, making it
difficult to carry out comparative analyses between countries. Problems of comparability also exist within countries, between different geographic areas or time periods.

- There is wide agreement on the need for comparable health indicators among countries and within countries. However, there is less agreement regarding the indicators or subjects that should commonly be included in questionnaires. The tendency to give priority to the measurement of morbidity tends to produce information relevant to policies on curative care rather than policies on disease prevention and health promotion. The measurement of health should include all its components.

3. *The inclusion of health as a subject in household surveys requires thought about the design of reliable and valid instruments for measuring health, as well as about the conceptual framework for the analysis. Following are some of the principal aspects of this discussion and of the methodological proposals found in the literature:*

- Household surveys have been little utilized by the health sector, and at the same time the subject of health is less developed in the surveys than other subjects; these two phenomena interact and reinforce each other. This is likely related to the difficulties in measuring health, especially in terms of the traditional indicators.

- A subject that would seem relatively simple to operationalize is the utilization of health services. The point is not simply to estimate utilization in and of itself, but to measure the need for care and the extent to which that need is met. However, the need for care is determined by methods that do not depend on medical diagnosis but instead are based on self-diagnosis or the respondent’s perception, which must be accepted as fact.

- The same analysis applies to the subject of spending on health care. Its measurement also is based on statements by the respondents, which are accepted as fact and used to estimate health care expenditures as a proportion of total household expenditures and to compare these proportions according to expenditure quintiles or other criteria. However, it is not possible to know whether that level of expenditure corresponds to the household’s need or to what the household can afford, without considering other factors related to decisions about spending or cultural definitions of health care.

- While one can engage in these and other analyses of the problems inherent in measuring the subject of health, the pivotal issue is the measurement of health status. Various formulations have been developed, ranging from an objective question (chronic illness) to a subjective question (discomfort), with the option of including a medical examination or recording the subject’s own statement. Between these two alternatives, priority has been given to self-reporting.
Substantial work has been done to develop scales for measuring health conditions, and several have been validated. The proposed scales attempt to cover the different components of health, combining objective elements with more subjective elements such as self-reporting of general health status and emotional well-being. The inclusion of both aspects is based on statements by the respondents.

Respondents’ reports of health problems not only depend on the objective existence of illness and the subjective experience of the problem, but also on factors such as the existence of a previous diagnosis by a physician, the subjective interpretation of the diagnosis in terms of the language used in the questions, mistaken recollection of health problems, or a tendency to complain. Reports are also influenced by socioeconomic and cultural aspects of the definitions of health and illness.

There appears to be no satisfactory solution to the problems associated with the self-reporting of illness. Interpretation of the results should take into account that part of the inequalities in declared morbidity may reflect different tendencies in reporting, and should include analysis of several indicators based on questions that leave less room for bias. The same applies to the analysis of such indicators as limitation of daily activities or confinement in bed because of illness.

The measurement of any social phenomenon requires an isomorphism between the theoretical and empirical levels. The WHO definition of health as a “complete state of physical, mental, and social well-being” does not offer a framework for arriving at a satisfactory definition of health status or “outcomes.” The attempt to construct valid instruments based on weak conceptual definitions can only be a sterile exercise. Deeper reflection on this subject should take place before, or at least during, the process of refining the measurement instruments.

The work carried out by the WHOQOL group of WHO sought to define health by relating it to the concept of quality of life and preparing a series of instruments for its measurement. This definition refers to multidimensional well-being that reflects physical, mental, and social health in relation to the individual’s physical and socio-cultural environment; it thus becomes necessary to define its dimensions and related factors. One option is to group these factors under the concept of “living conditions,” usually implicit in analyses of equity in health.

The analysis of equity in health requires precise definitions of the concepts of health and equity and of their relation to living conditions. The affirmation that living conditions affect the health status of the population, that the health status of the population affects their living conditions, that health is a component of living conditions, or that the interrelationships of different sectors, among them health, shape living conditions, implies different conceptual models of analysis and different techniques of analysis.
4. The study analyzed the questionnaires of 13 household surveys conducted in 11 countries of the Region, describing and comparing the ways in which they addressed the subject of health. This exercise reproduces the real conditions in which investigators who work with household survey databases must work: the definitions of the variables tend to identify the question on the questionnaire or refer to operational definitions without specifying nominal definitions, which generates a series of problems for the analysis and the establishment of theoretical relationships. The principal results show that:

♦ The questionnaires vary in the total number of items they contain. This in and of itself does not say anything about the measurement procedures or the degree of reliability and validity of the instruments, nor about the diversity of subjects addressed or their depth.
♦ The subjects of health, education and training, employment, housing and home furnishings, and sociodemographic characteristics are present in all the questionnaires, but income and consumption are not. These modules contain the macrodeterminants likely to feature in the analysis.
♦ The relative importance of the health module in the questionnaires varies. In general, the subjects of employment and housing are given greatest relative weight, while health ranks third or fourth, above education and training.
♦ Differences in the relative weight of the modules can be attributed in part to the different purposes of the household surveys, which determine the inclusion and depth of each subject; this in turn affects the number of questions on each. However, the number of questions also depends on the particular characteristics of the subject.
♦ Discussion of the relative size of the health module gains significance in cases where the questionnaire has been defined as an instrument for measuring living conditions, because of the centrality of health to living conditions and the importance of policymaking geared to the improvement of health conditions as an anti-poverty strategy.
♦ The questionnaires contain a battery of questions applying to all household members, and almost all also contain a submodule or questions on reproductive health and child health. The relative importance of these subjects in relation to the overall health module varies. Generally speaking, child health has the greatest number of items, reflecting the quest for information to inform the design of strategies for reducing infant and child mortality.
♦ Questions about reproductive health are directed to different target groups defined by age. No questionnaire asks about the reproductive health of men; rather, the tendency is to collect data on the more traditional aspects of reproductive health.
♦ Questions on child health are applied to children under 5 in some questionnaires and under 6 in others. Aspects covered include the presence of diarrheal and respiratory
diseases, care of these illnesses, breast-feeding and nutrition and, in some cases, anthropology.

♦ The questions applied to all household members are answered directly by the respondents or by a key informant for children under 15 or persons absent at the time of the interview. The subjects addressed are morbidity, utilization of health services, and health care expenditures.

**4.1. An analysis of the treatment of morbidity revealed that:**

♦ The questionnaires are designed to measure morbidity and not health status: they seek to identify episodes of illness or injury that give rise to the search for care, the utilization of health care services, and expenditures. This information allows an estimate of degree to which the need for care was satisfied, based on the report for that episode.

♦ The questionnaires use different reference periods for reporting illness or injury. The length of time appears to be related to the type and number of events that can be recorded, which is affected by recall. It is important to be able to identify clearly which type of event is being reported, especially as regards its severity.

♦ Classification of the episode of illness varies among the questionnaires, and centers on the physical aspects of health.

♦ The inclusion of other subjects also varies. Half of the questionnaires ask whether activities were limited because of illness or injury, just over a third ask about the presence of chronic illnesses, nearly a quarter ask about hospitalization, and the same number ask for the respondent’s self-reported health status, including, to a lesser extent, disability. The subject of habits and behavior is dealt with in a quarter of the questionnaires.

♦ Responses to the question about the limitation of usual activities because of illness or injury and the length of time they were limited should not be interpreted as direct indicators of the existence or severity of the event, since such responses are also influenced by socioeconomic and cultural factors.

♦ Questions about the presence of chronic illness either use this term or specify a disease of this type, which requires a previous diagnosis. They tend to solicit the report of a single illness in circumstances where suffering from more than one chronic illness is not rare, above all in poor older adults.

♦ The reasons for hospitalization are given as broad categories that make it difficult to carry out specific analyses. However, in some questionnaires conditions related to mental health are included.
Self-reporting of general health status implies moving away from the measurement of morbidity toward the measurement of health, making it possible to estimate to what extent the person defines their health subjectively as an individual problem. An interesting element to include would be the respondent’s perception of his or her current state of health in comparison to a previous reference period.

The subject of disability receives little coverage, despite the importance of including it for the purpose of estimating demand for disability care and rehabilitation programs in relation to socioeconomic status, age, or gender.

Questions about behavior and habits ask about the practice of sports and/or about smoking, alcohol consumption, television viewing, and hours devoted to sleep. The inclusion of these subjects can provide information for the design of strategies of disease prevention and health promotion.

4.2. An analysis of the treatment of health services utilization revealed that:

The questions are usually linked to the respondent’s previous report of an illness or injury, making it possible to compare the need for health services with the effective utilization of services and establish the level of satisfaction of this need in relation to different socioeconomic or demographic variables. The difficulties related to measurement of the existence of illness or injury would have direct effects on this estimate.

For those respondents who report having had an illness or injury in the period of reference, almost all the questionnaires ask whether they sought care for that event, from whom and/or where care was sought, or why care was not sought. Only a fourth of the questionnaires also ask these questions of respondents who did not report an illness or injury, but did say they had sought some type of health care. The questionnaires have the greatest likelihood of recording the characteristics of health services utilized if they apply the questions to all respondents who required some type of care, whether or not they reported an illness or injury. This does not preclude the possibility of analyzing the latter group of respondents separately.

More than half the questionnaires ask about travel time to obtain health services and the waiting time for treatment, while less than half ask about the means of transportation and the number of consultations. These questions are asked with regard to the most recent consultation. The analysis of these questions should take into account the nature of the problem and the type of care sought, information that is not available from all the questionnaires.

Half the questionnaires include questions about drugs and hospitalizations, while only a fourth ask about examinations or laboratory analyses. Some also ask about the entity responsible for payment. Affiliation in some system of social security or health insurance is mentioned in a majority of the questionnaires.
Questions about the quality of care are included in only a fourth of the questionnaires. They ask for the respondent’s evaluation of the timeliness and/or quality of the care received, and whether the person has noticed improvements in different components of the public system. It is very important to include the quality of care as a subject, especially because it yields information about the perceptions of the population concerning the delivery of public and private health services according to various socioeconomic, gender, ethnic, or age attributes.

4.3. An analysis of the treatment of health care expenditures revealed that:

The subject of health care expenditures is highly relevant to the analysis of equity in health. The data from household surveys provide evidence of the differential impact that health care has on the total budgets of households, stimulating the development of programs targeted to certain groups. The composition of these groups is based not only on characteristics of the household but also on attributes of its individual members, which should be considered in the analysis.

The analysis of health care expenditures as a proportion of total household expenditures implies keeping constant a series of conditions related to the internal dynamic of the household. This applies to any type of expenditure and also reflects the difficulties involved in working with the household as a unit of analysis. Thus, the analysis of health care spending must be based on the household’s total spending for this purpose and not on individual expenditures. A subsequent step is to analyze the characteristics of household members in households where health care expenditures account for a larger share of total expenditures.

The questions designed to measure health care spending are located in the general expenditures module and/or in the health module, asking about total household expenditures and expenditures by each member, respectively. Almost all the questionnaires address this subject, and the majority incorporate questions in both modules.

The questions on expenditures use different reference periods. These differences exist not only among the various questionnaires but also, in half of the cases analyzed, within questionnaires. This implies the need for some procedure for comparing expenditures in a single period.

The questions on expenditures that are included in the health module are applied to all household members in only half the questionnaires. In the rest, the questions are asked only of those who reported an illness or injury, with the addition in some cases of those who reported seeking some type of care. This approach excludes health care expenditures that may have occurred for other reasons, such as preventive care or other health actions unrelated to the existence of an illness or injury.
♦ It is important to capture data on health care expenditures by all members of the household, not only because this data is needed by the health sector, but also because of the contribution of health spending to total household spending—a variable of growing importance for estimating poverty levels. This does not preclude the possibility of analyzing the economic impact of illnesses or accidents, including their typology.

♦ The types of items about which expenditures are recorded varies among the questionnaires. Questions in the health module ask mainly about spending on medical consultations, drugs, examinations, and hospitalization. In the expenditures module they more often deal with health insurance.

5. *The foregoing analysis serves as a basis for the following minimum recommendations:*

♦ Household surveys are currently the only available secondary sources of information for carrying out an analysis of equity in health that incorporates various macrodeterminants. Use of the surveys should be encouraged, understanding them as a tool for obtaining the empirical evidence needed for the design, monitoring, and evaluation of public policies geared to achieving equity in health.

♦ Work under way in the field of household surveys involves a review of methodological procedures and of the subjects included in the surveys, in order to improve them and create possibilities for comparability between countries. These efforts should be intensified with regard to the content and methodology of the health modules, with a view to creating instruments that are comparable between countries. This includes defining common subjects and equivalent target groups, regardless of whether the country also introduces content of national relevance. This task would be facilitated by the exchange of information and experiences among professionals from the different countries, drawn from the fields of health, social sciences, and household survey design, along with experts in the design, monitoring, and evaluation of public policies.

♦ Treatment of the subject of health in household surveys has been geared to the measurement of morbidity. Although this information is important, it is more relevant to policies on curative care than to policies on disease prevention and health promotion. Thus, the surveys should include, in addition, the measurement of health in all its components.

♦ The difficulties inherent in measuring health status through self-reporting also apply to many other phenomena that are commonly measured by the social survey technique. Awareness and discussion of this issue is crucial for improving acceptance of the use of household surveys, especially in contexts where the so-called “hard” sciences are influential.
♦ The measurement of health using household surveys requires steps to deal with a series of problems when the data are analyzed. Promotion of the use of surveys should include advice regarding these precautions, and regarding the limits of the analysis and the concepts on which the variables and indicators are based.

♦ Several technical cooperation agencies and countries of the Region are taking steps to promote and develop surveys to measure living standards. Although the role of health can be defined in various ways, it clearly is central to the question of living conditions. The tendency to give health lower priority than other subjects addressed in surveys should be examined, and steps should be taken to give it more extensive and improved treatment.

♦ The measurement of morbidity is given substantially more weight than the measurement of health, and is centered on the physical aspects of health. Efforts should be made to incorporate items that measure health in all its dimensions, including self-reporting of the respondent’s current general health status in comparison to a previous period. The different proposals outlined in this report can provide a basis for discussion of common instruments to be used in different countries of the Region.

♦ The subjects of chronic illness, disability, and habits and behavior have a relatively low profile in the surveys. Their inclusion should be promoted and deepened, with a view to providing information for policy-making concerned with rehabilitation and with disease prevention and health promotion.

♦ In some questionnaires, the questions designed to measure utilization of health services exclude all respondents who did not report an illness or injury, even though they may have received preventive health care. These questions therefore should apply to all household members who report having received health services, incorporating the respective questions and filters.

♦ Some of the questions about access to health care—such as travel time and waiting time, the means of transport and the number of consultations made—take on different significance depending upon the severity of the health condition for which care was sought. However, no questionnaire makes this information available. Analysis of the data needs to consider these elements and their different implications, and therefore a question designed to measure this variable should be included.

♦ The subject of the quality of care receives scant coverage, despite its great importance for the design of service delivery strategies based on perceptions of the population regarding the provision of public and private services, broken down by various socioeconomic attributes. Furthermore, this subject is of major importance when strategies are evaluated based on perceptions of the changes introduced. These issues are a crucial aspect of the health sector reform processes currently under way in the countries of the Region. Their inclusion in the health modules of household surveys should therefore be encouraged and strengthened.
Because of the way the expenditures variable is operationalized in the household surveys, the analysis of health care spending must examine the satisfaction of health care needs at the level of the whole household. This implies a number of issues concerning the internal dynamic of the household and decision-making on the budget. Analysis of individual expenditures in relation to certain attributes constitutes a second level, which should be included in the characterization of the households previously classified in relation to their health care spending or its impact on the total budget.

The questions on health care expenditures are located in the health module and/or in the expenditures module, refer to different periods, and are disaggregated differently in terms of the specific health care received. The question of how best to measure health expenditures should be a central issue in the debate concerning design of the health modules. The end result should be the construction of a single definition for all the countries, one that establishes the basic common components of the expenditure and allows additions according to the particular interests of the countries. This task is very important not only in terms of its benefit to the health sector, but also because it can help improve the methods for estimating consumption, a variable that is increasingly used in estimating poverty levels.

Several questionnaires apply questions about health care expenditures only to those respondents who report an illness or injury, even though health expenditures may also include preventive care and other non-curative health actions. Questions on these expenditures should therefore be applied to all persons, regardless of whether they reported an illness or injury or some action related to health care.

The work of designing health modules for household surveys should involve professionals from different disciplines, especially from the social sciences and the health sector, but also those who work in the design, monitoring, and evaluation of public policies. Development of the modules should be a major part of the actions undertaking to improve household surveys, which, as instruments that measure living conditions, can provide empirical evidence for the design of comprehensive strategies for the elimination of poverty and the reduction of inequity in health.
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  [http://www.who.dk/hs/equitdisc.htm](http://www.who.dk/hs/equitdisc.htm)


  [http://www.iadb.org/sds/document.cfm/19/SPANISH/general/693](http://www.iadb.org/sds/document.cfm/19/SPANISH/general/693)


  [http://www.who.dk/hs/equitdisc.htm](http://www.who.dk/hs/equitdisc.htm)


ANNEX: TABLES
### Table 1. Surveys Analyzed

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<thead>
<tr>
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\(^a\): Program for the Improvement of Surveys and the Measurement of Living Conditions. World Bank/Inter-American Development Bank/Economic Commission for Latin America and the Caribbean

\(^b\): Living Standards Measurement Study. World Bank.
### Table 2. Absolute importance of the health module in relation to the other modules

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*a/ Includes questions about income and other economic activities in modules other than the employment module.

*b/ In some cases includes questions about health expenditures

*c/ Includes access to social programs.

*d/ Includes questions on the self-perception and social perception of income received and socioeconomic status, and not on the amount received.

*e/ Includes a module on older adults.

*f/ Includes a module on child care (children under 5)

*g/ Includes a module on civil security and on participation of the father in children’s education

*h/ Includes a module on benefits of social programs.
Table 3. Relative importance of the health module in relation to the other modules

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a/ Includes questions about income and other economic activities in modules other than the employment module.
b/ In some cases includes questions about health expenditures
Table 4. Absolute distribution of the health module by target groups

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a/ In some cases the subjects of child health and/or reproductive health are defined as separate modules.