



ARTICLE REVIEW

Indicators and measures in the primary health care area

Indicadores y medidas en el ámbito de la atención primaria de salud

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ABSTRACT

Introduction: in the field of health care, it is essential to provide comprehensive and coordinated care to ensure the health of individuals. This requires the use of indicators that measure the quality of care in various contexts and facilitate the evaluation of its characteristics.

Objective: to argue the importance of the use of indicators for the analysis of the health status of the population.

Methods: a narrative review was conducted using the Google Scholar search engine in several databases, including SciELO, Elsevier, National Library of Medicine and PubMed. The review was conducted in Portuguese and Spanish. About 350 articles were found, based on the established inclusion and exclusion criteria.

Development: the indicators support informed decision making in the field of public health. By providing reliable and objective data, they enable health professionals and political leaders to design evidence-based strategies to improve health care and promote population health. This includes the efficient allocation of resources, the planning of health services and the implementation of preventive and therapeutic measures based on real needs.

Conclusions: these indicators are an invaluable tool for detecting inequalities in access to and quality of health services. They enable public health decision-makers to design specific policies and programs to address these inequalities and ensure equitable care for all citizens.

Keywords: Medical Care; Primary Care, Quality; Hospital Center.

RESUMEN

Introducción: en el ámbito de la atención médica, es esencial proporcionar una atención integral y coordinada para garantizar la salud de los individuos. Esto requiere la utilización de indicadores que midan la calidad de la atención en diversos contextos y faciliten la evaluación de sus características.

Objetivo: argumentar la importancia del uso de indicadores para el análisis del estado de salud de la población.

Métodos: se realizó una revisión narrativa mediante el motor de búsqueda Google Scholar en diversas bases de datos entre las que podemos destacar *SciELO*, *Elsevier*, *National Library of Medicine* y *PubMed*. La revisión se realizó en los idiomas portugués y español. Se encontraron cerca de 350 artículos, a partir de los criterios de inclusión y exclusión establecidos.

Desarrollo: los indicadores respaldan la toma de decisiones informadas en el campo de la salud pública. Al proporcionar datos confiables y objetivos, permiten a los profesionales de la salud y los líderes políticos diseñar estrategias basadas en evidencia para mejorar la atención médica y promover la salud de la población. Esto incluye la asignación eficiente de recursos, la planificación de servicios de salud y la implementación de medidas preventivas y terapéuticas basadas en necesidades reales.

Conclusiones: estos indicadores son una herramienta invaluable para detectar desigualdades en el acceso y la calidad de los servicios de salud. Permiten a los responsables de la toma de decisiones en salud pública diseñar políticas y programas específicos para abordar estas desigualdades y garantizar una atención equitativa para todos los ciudadanos.

Palabras clave: Atención Médica; Atención Primaria; Calidad; Centros de Salud.

INTRODUCTION

The World Health Organization defines the term "health" as a state of mental, physical and social well-being, which is not limited to the absence of disease or illness. This conceptualization is based on a holistic model and is therefore considered unattainable but desirable. Total wellbeing idealizes health services and in order to work towards this, it is vital to use indicators that make it possible to measure or know to what extent people benefit from health services to achieve a full state based on the three dimensions mentioned above.^(1,2)

Health depends to a large extent on factors external to the health system, although it does not determine it in its entirety, so that the answers to health problems should also be sought outside the system and involve interdisciplinary work and community participation.⁽³⁾

When discussing health indicators, it is necessary to think, in its multidimensional nature, the concept should be seen in the light of different theoretical and cultural references to measure the health status of the population.

Health indicators are defined as summary measures that capture relevant information on different attributes and dimensions of health status and the performance of a health system.⁽⁴⁾ They allow the monitoring and description, in real time or retrospectively, of the health of populations, and their use in public health undoubtedly determines decision-making, as well as improving those parameters that are deficient and reducing inequalities and inequities.

The indicators may have different modifications depending on the health systems of each country, but their essence is the same. The classification into positive and negative is related to how these indicators directly or indirectly influence human health and the broad concept issued by WHO. The higher the value of a positive indicator, the better the health of the population under study and research. Negative indicators are always correlated with a poor or deficient state of health. The higher their value, the worse the health of individuals or communities.

These are associated with different health sectors and therefore evaluate different indicators: health policy, socioeconomic conditions, health care services and health status, the latter will be divided into morbidity indicators, mortality indicators, lifestyle indicators and birth rate indicators and will be the most widely used.⁽³⁾

Management indicators are increasingly used throughout the world. In Spain, the Spanish Society for Healthcare Quality has been developing projects for several years to promote "a group of indicators for monitoring and promoting quality in the hospitals of the National Health System".⁽⁴⁾ In the United States, something similar happens with hospital mortality rates, by the Health Care Financing Administration, which since 1986 has been promoting the use of hospital outcome measures, as well as worldwide. In particular, mortality rate, readmission rate and hospitalization complications have become mandatory indicators of hospital performance and this part of the work is being further developed.⁽⁵⁾

Basic Indicators 2019: Health Trends in the Americas, is a report that shows a demographic outline of the region and charts changes over the past 25 years across the region. These demographic indicators are useful to better understand population characteristics and their impact on health. In Latin America, Brazil (especially Sao Paulo), made it possible to evaluate the performance of nurses in public hospitals through management indicators. In the case of Chile, the Health Authority provides on its website a series of reports on the use of hospital indicators. These include indicators from the National Quality Measures Clearinghouse.⁽⁴⁾

In Ecuador, much remains to be done in the area of public health, especially when there is still a lack of a solid system for evaluating the general performance of hospitals and other levels of care using process management indicators. Studies such as that of Armijos JC and Núñez A.,⁽⁴⁾ reveal that there are problems with the use of hospital management indicators, including: a) deficiencies in compliance with international standards; b) lack of knowledge and therefore lack of implementation of systems that serve as a tool for timely decision making; c) lack of investment in health care, among others.

In view of the problem of having few studies on the subject, this article creates a precedent for further in-depth studies on the subject. The objective established on this occasion was to argue the importance for public health systems of indicators that make it possible to analyze the real conditions of health care, evaluate inequalities, strengths, weaknesses and make decisions to generate improvements.

METHODS

A narrative review was carried out using the Google Scholar search engine in various databases, including SciELO, Elsevier, National Library of Medicine and PubMed, with the aim of collecting information on studies that report public health indicators, quality indicators and their provision for the health service. Various combinations of search terms were used: public health indicators, essential public health services, health promotion, primary care, quality of life, quality of life, public health indicators.

We included articles related to public health indicators, mental health indicators, care indicators, field research, bibliographic reviews of research with a health system similar to Ecuador's. We excluded studies related to public health indicators, mental health indicators, care indicators, field research, bibliographic reviews of research with a health system similar to Ecuador. Studies that correspond to health audit indicators were excluded, as well as those that talk about health care models in developed countries. The review was carried out in English and Spanish. About 350 articles were found, of which 13 were included.

The articles were selected for their relevance to the purpose of the review based on the quality of the information, as well as the authors' research. The texts used for the elaboration of this review article include the Health Indicators: Conceptual and Operational Aspects, as well as manuals published by the Ecuadorian Ministry of Public Health, the World Health Organization and the Pan American Health Organization.

DEVELOPMENT

The Regional Initiative for Basic Health Data (IRDBS) of the Pan American Health Organization (PAHO) was founded in 1995 with the purpose of contributing to the knowledge of health and its well-being by using data that provide accurate information for correct decision making. Its main objective is to compile annually a set of data and indicators that make it possible to describe the situation of each country in relation to its health care model. In 1997, 119 indicators were selected from which most countries have adopted this model to analyze and develop health trends at the national and international level.^(6,7)

Improvement is established when countries begin to monitor progress with respect to previous years because they have Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) targets where the vital objective is health as a fundamental right, thus guaranteeing a healthy life and promoting wellbeing for the entire population. However, meeting these goals requires good quality data that is accessible, timely and reliable to ensure progress in the health system.⁽⁸⁾

Segmentation is a characteristic of the organization of the health system in Ecuador, which is made up of two sectors: public and private, with a security system financed by contributions from workers and employers. Public health care is provided by the Ministry of Public Health, with no insurance and privatized systems for citizens who have higher incomes and can afford insurance. This fragmentation is intended to be attenuated through a strategy focused on patients being able to use the Ecuadorian Social Security network of services, regardless of their affiliation status.

Currently, new indicators have been reported in quality control in primary care and mental health, due to the dissatisfaction and distrust of health service users. For some years now, the idea of a change in the methodology implemented in the evaluation process has been raised with greater efficiency in hospital centers.

When talking about health indicators, it is used as a synonym of "population health indicator", it has quality, quantity and time as characteristics, measuring directly or indirectly the changes in a situation and the progress achieved. These indicators are usually standardized by governmental or international authorities.⁽⁴⁾

The selected indicators are grouped according to categories and subcategories: Time (waiting times/process), Quality (errors/compliance with standards/satisfaction), Efficiency (productivity (performance)/compliance with standards), Capacity (supply/demand) and Economic (costs/financial) indicators.

The effectiveness of an indicator must meet at least four characteristics: ⁽⁵⁾

Validity: reflects the quality for which it is created or established.

Reliability: it provides equal results in equal circumstances.

Comprehensibility: it must be understood what aspect of quality it will reflect.

Simplicity: refers to the ease of administration, application and explanation.

In the analyses carried out by Morgenstern,⁽⁹⁾ health variables are categorized into different levels of measurement by:

1. direct observation of the person (blood pressure in people, people's access to health services when required).
2. Observation of a population group or place by means of rates and proportions (prevalence rate of type 2 diabetes or the percentage of teenage mothers), averages and medians (survival of cancer patients), among others.

They are grouped into categories and subcategories such as: Time (waiting times/process), Quality (errors/compliance with standards/satisfaction), Efficiency (productivity (throughput)/compliance with standards), Capacity (supply/demand) and Economic (costs/financial) indicators.⁽²⁾

In the research of Armijos JC and Núñez A.,⁽⁴⁾ it is established that the data collection will be done in a randomized way, by means of a stopwatch in the case of time indicators, for example (Monday morning, Wednesday afternoon, Friday evening, and so on). In order to establish the information for the satisfaction indicators, it is necessary to develop and implement surveys, directed towards the staff as well as the patients.

"Indicators play a key role in converting data into relevant information for decision makers in the field of public health" according to Armijos JC and Núñez A.,⁽⁴⁾ The importance of the commitment of all levels should be emphasized, since the following depends on them: the veracity of the data, the reliability of the information, of adequate indicators to take specific actions to improve organizational performance.

At the hospital level, there are several indicators: capacity, productivity and efficiency. For bed resources, hospitals calculate several indicators related to hospital productivity and efficiency: occupancy percentage, average length of stay, turnover rate and substitution interval.⁽⁶⁾

We must know that an indicator reflects a health situation in a given population, understand the difference between data as a primary unit that can be converted into an indicator which, after analysis, allows us to generate information that later generates knowledge.⁽¹⁰⁾

Primary Health Care (PHC) in 1984 to 2003 for trying to increase the quality of human resources, even implementing ministerial resolutions. University health professionals in primary health care have limited opportunities for professional growth, which has an impact on health care. In 2002, primary health care professionals started to be trained by means of several methods such as courses, diploma courses and master's degrees, and since then, the training process has been evolving.

PHC must meet the ideal conditions to be able to respond to the changes that may occur in technology, demography and economy, which have an impact on health and wellbeing. In 2007, in order to incorporate the MAIS, the first level of care had to be strengthened. This model is oriented to the construction, care and recovery of health in all its dimensions: biological, mental, spiritual and psychological.⁽³⁾

In the surgical medicine services it was possible to identify that about 56 % were dissatisfied and only 44 % were satisfied. These data are the result of several factors, among them one of the most important is the long waiting time in the hospital centers for a person to undergo a surgical treatment; an influential factor is that long waiting times can cause the pathology to worsen, which was found to have an incidence of 63,3 %, which increased the dissatisfaction of the people. There is also an inverse relationship between waiting time for care and perception of the quality of care.⁽¹¹⁾

In a study by Oliver-Parra A and González-Viana A.,⁽³⁾ 38 indicators were implemented, including demographic, socioeconomic, morbidity, mortality, lifestyles, preventive practices, resources and use of health services, and physical environment. With this, health statistics by basic area were sought in order to promote community health, which showed that the strategy to be followed will depend on each municipality

Home hospitalization needs to be validated through indicators to improve the quality of this service, currently at all levels of care, although it has not been achieved in its entirety, it was possible to identify the little development that exists in the research of quality assessment in home hospitalization, if achieved it would improve the care of a large number of patients suffering from serious diseases which are treated from home.⁽¹²⁾

Therefore, it is a novel way of establishing indicators to evaluate the degree of patient satisfaction with out-of-hospital medical care, since there are currently a large number of patients in palliative care. Various additional aspects should be addressed, such as: symptom management, home visits by staff, availability of medications, etc. With these additional indicators, it would be possible to identify where care is failing in order to improve it, and thus patients treated in public or private hospitals would have more confidence in the service.

Donabedian,⁽¹³⁾ proposed three fundamental elements to evaluate on the quality indicators, among them are the structure, the process and the results, which are still in use today in order to address the problem of health and hospital care. That is why there are structure indicators which allow measuring the characteristics of the framework of how the services are presented and the state of the resources, the process indicators in charge of the activity carried out with the patient, the result indicators which quantify the level of success achieved.⁽⁶⁾

CONCLUSIONS

The identification and use of health indicators in primary health care are essential to evaluate, improve and optimize the quality of medical services. These tools contribute to the detection of inequalities in access and quality of care, as well as to informed decision-making that benefits public health in general. Their proper application leads to a more effective and equitable health care system.

Conflicts of Interest

No conflicts of interest exist

Authorship Contribution

MLLIC: conceptualization, research, administration, draft-writing, methodological review, approval of final manuscript.

ECMA: formal analysis, drafting, approval of final manuscript.

MBH: formal analysis, drafting, approval of final manuscript.

AAL: conceptualization, drafting, bibliographic review, methodological review, proofreading.

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