

Model for analysis of actors in divergence or convergence of strategic health objectives

Modelo para análisis de actores en divergencia o convergencia de objetivos estratégicos sanitarios

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Abstract

Objective: Correlate methods to analyze and identify the effectiveness of the objectives in actors with maps of strategic power. **Method:** It is a conceptual study, analytical and with deductive reasoning, of explanatory scope in correlation of convergent and divergent strategic objectives to health processes. **Results:** Understanding the importance of analyzing and understanding the prospective in the decision-making of the actors that impact their strategic, tactical and operational deployment of hospital medical care with the proposals of models with alignment in the health system and comprehensive practicality and analytical architecture modeling of how the hierarchical levels of actors can be concentrated according to the objectives with indicators and committed goals. **Conclusions:** The prospective analysis of actors makes it easier to evaluate health leaders according to the effectiveness of their established objectives through the collection of information in matrices, MACTOR (Method, Actors, Objectives, Force Results) and mapping of health objectives. It is relevant in favor of ensuring strategic alignment in health institutions until reaching hospitals and giving continuity to the objectives and improving conflict management for the benefit of medical care.

Keywords: Actors and objectives. Priority of objectives. Maps.

Resumen

Objetivo: Correlacionar métodos para analizar e identificar la eficacia de los objetivos en actores con mapas del poder estratégico. **Método:** Estudio conceptual, analítico y con razonamiento deductivo, de alcance explicativo en correlación de objetivos estratégicos convergentes y divergentes a los procesos de salud. **Resultados:** Comprender la importancia de analizar y entender la prospectiva en la toma de decisiones de los actores que impactan es su despliegue estratégico, táctico y operativo eficaz a la atención médica hospitalaria con las propuestas de modelos con alineamiento en el sistema de salud y la practicidad integral y analítica del modelado de arquitectura de objetivos cómo se pueden concentrar los niveles jerárquicos de actores de acuerdo con los objetivos con indicadores y metas comprometidas. **Conclusiones:** El análisis prospectivo de actores facilita evaluar a los líderes de salud de acuerdo con la eficacia de sus objetivos establecidos a través de recolección de información en matrices, MACTOR (Método, Actores, Objetivos, Resultados de Fuerza) y mapeo de objetivos de salud que tiene relevancia en pro de lograr garantizar un alineamiento estratégico en las instituciones de salud hasta llegar a los hospitales, y dar continuidad a los objetivos y mejorar la administración del conflicto en beneficio de la atención médica.

Palabras clave: Actores y objetivos. Prioridad de objetivos. Mapas.

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Introduction

To provide effective and quality health care, the convergence of key stakeholders and leaders is required, from regulators, payers, providers of goods or services, and intermediaries, to the suppliers in the health care value chain. This convergence is now a priority to improve and reinvent process models and health indicators of stakeholders and evaluate the strategic deployment of performance in achieving the objectives and strategies by decision-makers in public health policies, in order to deliver quality services on time to the greatest number of patients while minimizing costs, with convergence in the intelligent reaction of the intervening actors and their interrelations¹ in four interconnected environments: social, political, economic, and technological; which are in constant change and have an impact on the health care map of the health sector value chain². Therefore, it is reiterated that strategic and global planning is a sequence of logical, ordered, functional activities, with strategic deployment and continuity, aimed at establishing a realizable global vision for the responsible actors. It is part of clarifying the fundamental mission or purpose of the departments to project it into a desirable, achievable future, guided by their values; a process that allows for the integral visualization of the future of institutions, understood as the process of guiding the strategic alignment of objectives, strategies, and public policies to health care entities from where they are and what they are in the present to where they should be and what they should be in the future. With a cross-sectional vision based on the processes of the departments, it integrates the efforts of stakeholders around a common objective, understands the dynamics and interactions that occur among companies, clients, suppliers, and key actors, and aligns organizational performance with the strategy and objectives of the health sector³.

Likewise, organizations are created vertically, based on specialization to fulfill the various functions they perform. Thus, the responsibility for the expected results is established on the function and not on the processes that develop transversally across organizational units⁴. On the other hand, evaluation is part of the strategic planning process, which is a valuable tool for achieving the mission and global vision that guarantees continuous improvement. Finally, performance indicators, in turn, serve to indicate, which comes from the Latin *indicare*, meaning to show or

signify something, with clues and signals, and performance indicates the capacity of the processes within organizations in the value chain to manage their resources and meet the efficient and effective objectives and goals established^{3,4}. Through performance measurement, 2 priority aspects are addressed: the first is measuring efficiency and the second is effectiveness. Efficiency is defined as the result of benefit relative to cost, and effectiveness is what is performed or executed in relation to what was planned within the established time frame. Thus, productivity is efficiency multiplied by effectiveness⁵, as well as coordination with relevant actors who intervene in addressing risk factors and health determinants, including monitoring trends in diseases and their impact on public health, to promote efficiency and equity in resource allocation⁶.

Therefore, the health sector needs to respond to how to identify global actors who make decisions on effective strategic objectives that are decisive and key in their strategic alignment in health care.

Method

In the actor analysis to identify the political opposition and support that the health reform process and strategy implementation will face, it is necessary to use methodologies that allow for the identification, analysis of stakeholder participation in health processes, and evaluation with indicators. This study presents three proposals: the first, without using software for structural actor analysis; the second, with the application of MACTOR (Method, Actors, Objectives, Results of Force), as well as the design of effective strategies aimed at intervening with these actors to increase their political feasibility; and the third, modeling architecture for actors and performance indicators (KPI).

Strategic analysis mapping of health reform actors

This is one of the tools for studying the implementation of health sector reform, and it is the first step in a political feasibility analysis, which should be complemented by the design of other tools that allow for the evaluation of the impact of applying the strategies. One way to do this is offered by the Policy Maker tool⁷, and its integration with formats is visualized in figure 1, which allows for the implementation, estimation, and

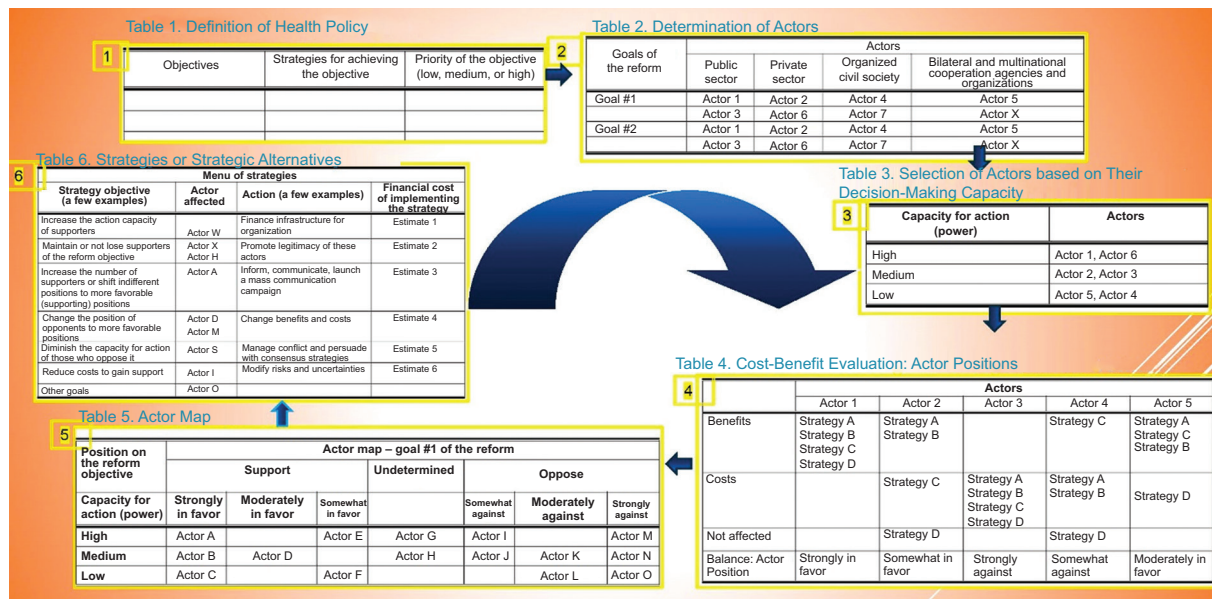


Figure 1. Basic matrix layout for actor and strategy analysis. The 6 stages of matrices for performing actor analysis are visible, noting that for the large-scale health care process, a substantial volume of global and regional information would need to be processed for its application and analysis. (Source: adaptation of Strategic Actor Analysis Mapping for Health Reforms⁸).

introduction of costs and the potential success of each strategy, with the goal of calculating the final probability and total cost of various intervention packages or participations in the strategic alignment of health. Table 1 details the purpose of each stage⁸.

Analysis of stakeholder strategies

Part of the actor's game is defined as individuals who make decisions and take specific positions in the environment, with significance for the performance of processes and potential impact on decision-making. This leads to analysis to understand the health governance system. It is known that individuals defend their interests, and each actor has justified reasons for their actions, which is known as "methodological individualism," where the actor is either individual-unipersonal or collective-collegial and will try to do everything that benefits them to achieve their goals. Additionally, if there is alignment between those interests, alliances will be formed. But if there is divergence in interests, conflict can arise due to the differences in their interests. In other words, power will arise relatively from the actors and will influence the characteristics that favor alliances or conflicts⁹.

Another perspective is in the potential system that the actors in the environment find themselves in. Their surroundings (habitus) are decisive in their behavior.

Each individual behaves according to how they have been formed through learned social culture and daily life throughout their life, which limits their freedom of action, as it depends on social systems. However, in contrast, although conflicts occur in the environment and groups emerge that question the system, these actors promote changes and evolve the reality, thus avoiding this deterministic approach in the social sphere¹⁰. Therefore, understanding the structure of relationships between its elements provides insight into the system's behavior and its constant change, where the interconnection or network of relationships between elements is crucial for understanding them¹¹.

The stages in the analysis of intervention and participation of actors for their possible effects and consequences on systems are¹¹:

- Identify and descriptively characterize the external and internal actors participating in the system or its environment.
- Describe the objectives, motivations, and intentions of each actor, creating a chart where each actor recognizes their goals and strategies in terms of maximizing their benefit or developing their motivations.
- Evaluate and weigh the relationships between actors, i.e., the influence that each actor (individual or collective) can exert over the other actors.

Table 1. Actor Method for Health Reforms

Stage	Purpose
1. Definition of Content-Policy	Identify prioritized specific objectives and the definition of the strategies or means that have been designed to achieve the proposed objectives, with prior analysis of technical and financial feasibility.
2. Identification of the Actors Participating in the Process	Analyze and locate the participation of each actor in relation to the identified objectives of the reform and health strategies.
3. Evaluation of the Action Capacity of All Actors	Select a limited number of actors with greater power who support or oppose the objective, through simulation with the technical team leading the reform, with in-depth knowledge of the sector and its actors within the analytical framework of guidelines.
4. Costs and Benefits	Conduct a cost-benefit analysis related to the implementation of health objectives through interviews to understand each actor's position on each reform objective and the reasons that justify or explain their position (the costs and benefits the actor associates with the reform's objectives).
5. Preparation of Political Maps of the Actors	Determine the political map of the actors, identifying the support or obstacles each one represents for the reform process, and generate strategies to induce mobilization and change of position regarding the reform or change.
6. Strength of Actors Participating in Strategic Objectives	Once the actions arising from the correlation of forces of actors directly participating in each reform objective are identified, recognize the opportunities and threats arising from transitions and changes in the political, social, economic, and environmental context of the reform. These changes are independent of the action and beyond the control of the reform leader (s). In this phase, strategies (objectives and actions) are defined to seize opportunities and overcome obstacles hindering the achievement of reform objectives.

It is evident that applying this methodology with the actor map and strategies designed increases the political feasibility of reform objectives. The technical team presents the strategies to the leaders of the process in relation to the relevant actors, and through simulation work, selects the actors to focus on and the appropriate strategies to influence the direction of the health sector reform.

Source: Self-created, adapted from ref. 8.

- Understand the positioning of actors regarding objectives. Describe the current attitude of each actor towards each objective (opposed, neutral, indifferent, or favorable). Represent a matrix of actors $\times$ objectives.
- Understand the degree of convergence and divergence between actors and the plane of the distance between the different objectives of the system.

To develop the structural analysis of actors, on the one hand, a document detailing the identity of each actor is created, listing their objectives, ongoing projects, and their maturation (preferences), motivations, obligations, and internal means of action (coherence), along with their past strategic behavior (attitude). On the other hand, the means of action available to each actor over others to carry out their projects are examined.

Evaluation of the power relations of the actors

It is conducted through the Matrix of Direct Influence (MID) of Actors, in which the actors are distinguished on the ordinate (y) axis and values are assigned to the abscissa (x) axis to weigh the

interrelationship of strength between them, with the relationship being represented at each intersection of the matrix. The result obtained allows for the understanding of the role and interrelationships of actors in the performance of the management and governance process. They are weighted by experts for recording in the actors' influence matrix. The relationships are weighted on a scale from 0 to 4, where the higher the number, the greater the influence of one actor over another. Each actor has their own means or strategies of action that allow them to achieve their goals and influence, to some degree, other actors. For the categorization of actor influence (Table 2), after the matrix calculation of relationships between actors, a graph called a plane or map is obtained (Fig. 2), which consists of two axes—ordinate and abscissa—and as a result, 4 quadrants are observed:

- Dominant actors: highly influential and not very dependent within the process.
- Subordinate actors: not very influential and highly dependent within the process.
- Actors conditioned by results: as influential as they are dependent on the processes.
- Autonomous actors: neither influential nor dependent in relation to the analyzed process.

Table 2. Categorization of Actor Influence

Value	Relationship
0	Assigned when there is no influence of one actor over another, meaning that the interaction does not result in changes in decision-making or actions of the actors, nor does it have consequences from the change.
1	Indicates a weak relationship, where the influencing actor modifies certain activities or processes in which the actor is involved.
2	Indicates a medium-strength relationship, where one actor has the ability to change entire or specific projects of the actor receiving the influence.
3	Refers to a strong relationship between actors. In this mode, the first actor influences the other radically enough to nullify the reason for the existence of the other actor. The consequences are of high impact. The task assigned as the mission of the actor receiving or affected by the interaction is committed.
4	This weighting is given for categorical influence, to the point where it threatens the existence of the actor receiving the influence and may even manifest as a risk to the integrity of the actors affected by the influence.

Table 2 shows that the weighting is defined according to the degree of influence, with 5 levels of relationships between actors: (0) an actor has little or no influence over another; (1) an actor can pose a limited risk to the processes of another actor; (2) an actor can put the success of another actor's processes at risk; (3) the fulfillment of their missions; or (4) their own existence. The different actors are placed in an influence and dependency plane. The analysis of power relationships highlights the strengths and weaknesses of each actor, their ability to freeze a situation, and other circumstances. In conclusion, the weighting evaluates direct influences between actors using a categorized weighting through a mutual influence box, known as the actor-xactor matrix (MAA).

Source: Self-created, adapted from ref. 11.

Integration in the convergent and divergent analysis of actors

In this phase, the positioning of the actors is analyzed in relation to their strategic objectives from the previous structural analysis of MICMAC (Matrix-based Multiplication Applied to Classification) through another matrix of the valued position (MAO), in which the actors are associated with the objectives. The result shows the map of alliances and conflicts. This is achieved through the matrix description of potential alliances to all positions of coincident or favorable actors regarding certain strategic objectives. Similarly, divergent and opposing positions between different actors concerning the strategic objectives are interpreted as conflictual. Likewise, the weighting of the effects of the objectives on the intentions of the actors is observed in reverse or divergent terms.

The mechanism, in short, is through matrix calculation, which is defined by using the MACTOR application and distinguished in the following phases:

- Associate or correlate the preferences identified between the actors and their strategic objectives in the system or process.
- Locate the actors in relation to the objectives or strategic challenges based on the importance of perceiving whether they are allies, in conflict, or neutral.
- Quantitatively weigh the relationship that occurs, with the applicable scale recording different signs

in the evaluations according to the actor's behavior regarding the objective, or conversely, the impact of the objective on the actor's interests. The sign distinction in the scales is verified through neutral, positive, or negative values¹²:

- Neutral valuation (value 0): reflects that the actor is indifferent to the objective, and at the same time, the objectives do not change the actor's interests.
- Positive and negative valuations of the actor in favor of the objectives (Table 3).

Actor objectives architecture model

The mapping of actors as an interdisciplinary and transversal adaptation consists of creating objective maps, which visualize the path that allows progress toward the maturity route for optimizing the achievement of the objective (Fig. 3). It is an interdisciplinary diagram because various actors participate in the process, guiding and describing their contributions to the deployment of the health care process. They are the graphical representation of the sequence of objectives that integrate a process. It describes movement or flow (which occurs over time) by various actors or owners of the process, and it describes what objective each actor aims to achieve, using symbols or drawings made on an electronic sheet^{13,14,15} (Fig. 4).

Consequently, once mapped, the construction of KPIs and indicator dashboards is established in six stages^{3, 14,15}:

Table 3. Positive (+) and Negative (–) Evaluations of the Actor in Support of the Objectives

Value (+)	Objective	Value (–)	Objective
+1	Essential for the development of the actor's processes	–1	Risk to the actor's processes
+2	Priority for achieving the expected processes and programs of the actor	–2	Risk to the success of the actor's processes and programs
+3	Indispensable to the actor's mission	–3	Risk to the fulfillment of the actor's mission
+4	Indispensable for the actor's existence and continuity	–4	Risk to the actor's very existence

These scales are applied for weighting and are incorporated into an actor positioning chart for each strategic objective. This information helps decision-makers in health management and allows understanding possible alliances or oppositions; ultimately, it facilitates proposing strategies with alignment and alliances between actors to address key variables and associated strategic objectives.

Source: Self-created, adapted from ref. 12.

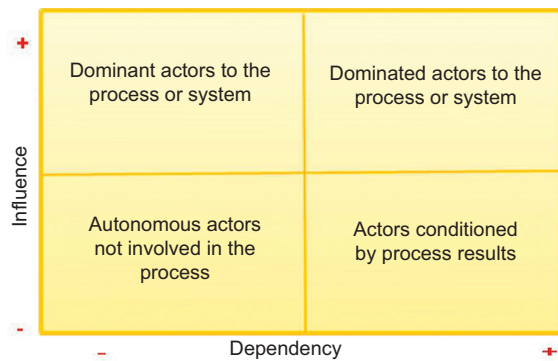


Figure 2. Actors' influence and dependence map. This shows that the map consists of 4 key positions: dominant actors (highly influential and minimally dependent), dominated actors (minimally influential and highly dependent), actors conditioned to results (equally influential and dependent), and autonomous actors (neither influential nor dependent on the system or process analyzed). (Source: self-created, adapted from ref. 12).

- **Identification of indicators:** For the construction of the indicator architecture in priority processes of specific activities, it is based on processes, subprocesses, and stages in obtaining process maps.
- **Selection of priority activities in the mappings:** The most important activity within the process is selected, not necessarily in the inputs or outputs of the process for priority or specific activities. This allows for a preventive guarantee of the expected result of the good or service. Priority activities are clearly identified in the value chain as unique and distinctive activities that satisfactorily deliver the good or service. Otherwise, these activities become a bottleneck that impacts the delivery of an unsatisfactory good or service and leads to conflicts between people^{3,16}.
- **Definition of indicators:** Defining KPIs that provide useful, accurate, correct, and important

measurements is key to ensuring good strategy and making relevant decisions. The KPI offers visualization of activities to anticipate results and make decisions from any functional area where the activity is located.

- **Implementation of indicators and validation:** This is formalized through documentation that allows for standardization of the main elements that integrate the indicator. The design of a template for indicators is created, which allows for tracking through monitoring by the responsible actor or owner of reporting progress. It also validates if the established control is ideal and works to collect statistical information for consolidating its adjustment and implementation, incorporating it as part of the dashboard for the operational group, middle management, or senior management.
- **Indicator perspectives:** Categorization will allow grouping them based on specific criteria to visualize the progress of the objectives of each group of indicators in a timely manner^{3,17}:
 - **Profitability (productivity):** Refers to recovering the investment and obtaining financial benefits in cost/benefit terms. For hospitals, it is common to use productivity, referring to results in health care services.
 - **Activities:** The priority link in the value chain for obtaining a good or service.
 - **Patient safety:** A classification used for indicators that monitor the use of best preventive practices to reduce failures, which are causes of adverse events, in providing patient care¹⁸.
 - **Offer:** The value propositions offered to the client or user in their products/services.
 - **Quality:** Covers customer or user satisfaction with the goods or services received.

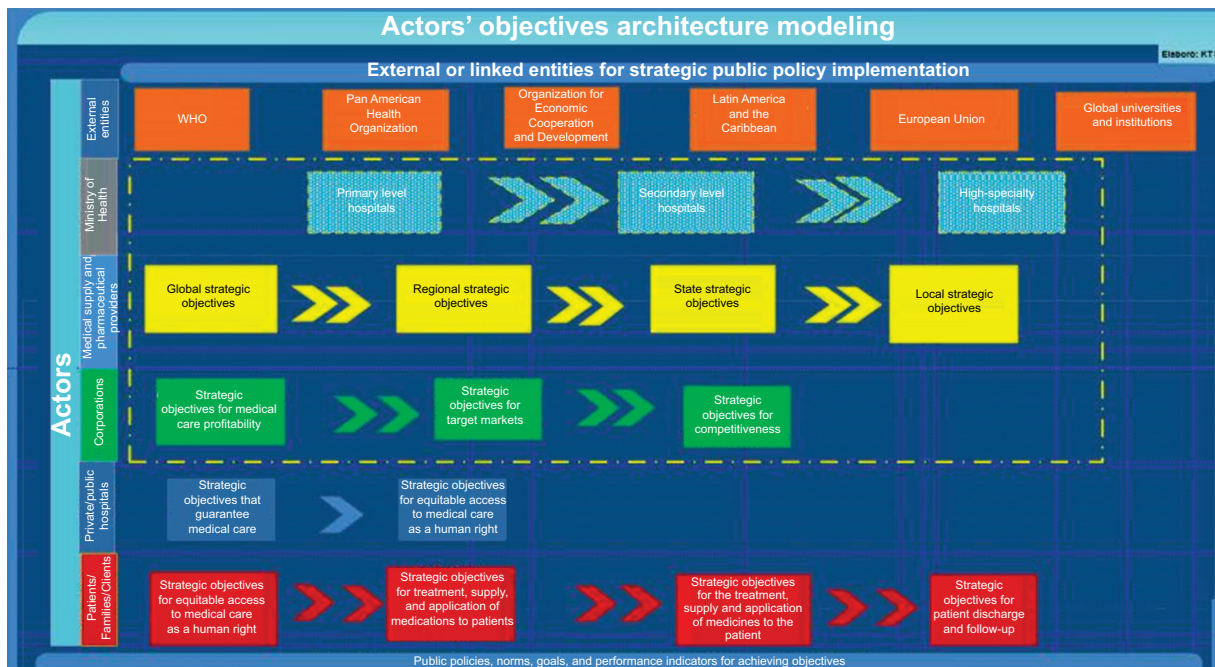


Figure 3. Actors' objectives architecture modeling. It is a map that integrates actors, with the advantage that it allows visualization of the beginning and end of the public policy implementation process, priority objectives, transitioning to flat, horizontal structures where the names or positions of responsible individuals within the health care structure do not appear, allowing for a conflict-free diagnosis among actors and visualizing divergence that can be measured before and during the process to deliver expected results at strategic, tactical, and operational levels. (Source: self-created, adapted from refs. 3 and 19).

- Health regulatory bodies¹⁸: Indicate and add mandatory indicators designated by external health entities and compliance monitoring, for the benefit of the quality and safety provided to the patient.
- *Performance KPIs for middle management and senior management*^{3,14,15}: Strategic KPI dashboards are a tool designed in a matrix structure. On the lateral side of the matrix, the various categorization hierarchies, called “perspectives,” are established, selected by the process actors. On the upper right side, the relevant KPI data intended to be visualized after being measured are included. The description of its structural design is as follows:
 - Strategic alignment perspective: Allows for categorizing profitability (productivity), activities, patient safety, offer, quality, and health regulatory bodies, among others, according to the scenario, global, regional, or sectorial.
 - Medical areas: Specifies the area within the organizational structure of the position.
 - Objective: Identifies and qualitatively expresses the goals of the actors towards which resources, efforts, and activities of the organization must be directed to fulfill its mission and vision.
 - Strategy: The initiative that establishes the means the actors will employ to achieve the objective and goal they aim for, to obtain the expected results.
 - Indicator: A means, link, or variable used to measure values on a measurement scale derived from a series of observed events in the priority activities of the processes.
 - Indicator results: Make sense according to the established objectives (expected results), from which a series of activities are organized to achieve them. These include:
 - Goal: A quantitative element of the objective in time.
 - Status: The parameterization according to the progress of results, assigned the color green, red, or yellow, depending on the maximum or minimum permissible limit.
 - Graph: Illustrates trends in the performance indicator visually to analyze, understand, and make comparisons, among other benefits.

Discussion

This research contributes to the importance of the individuals who lead, prioritize, and decisively

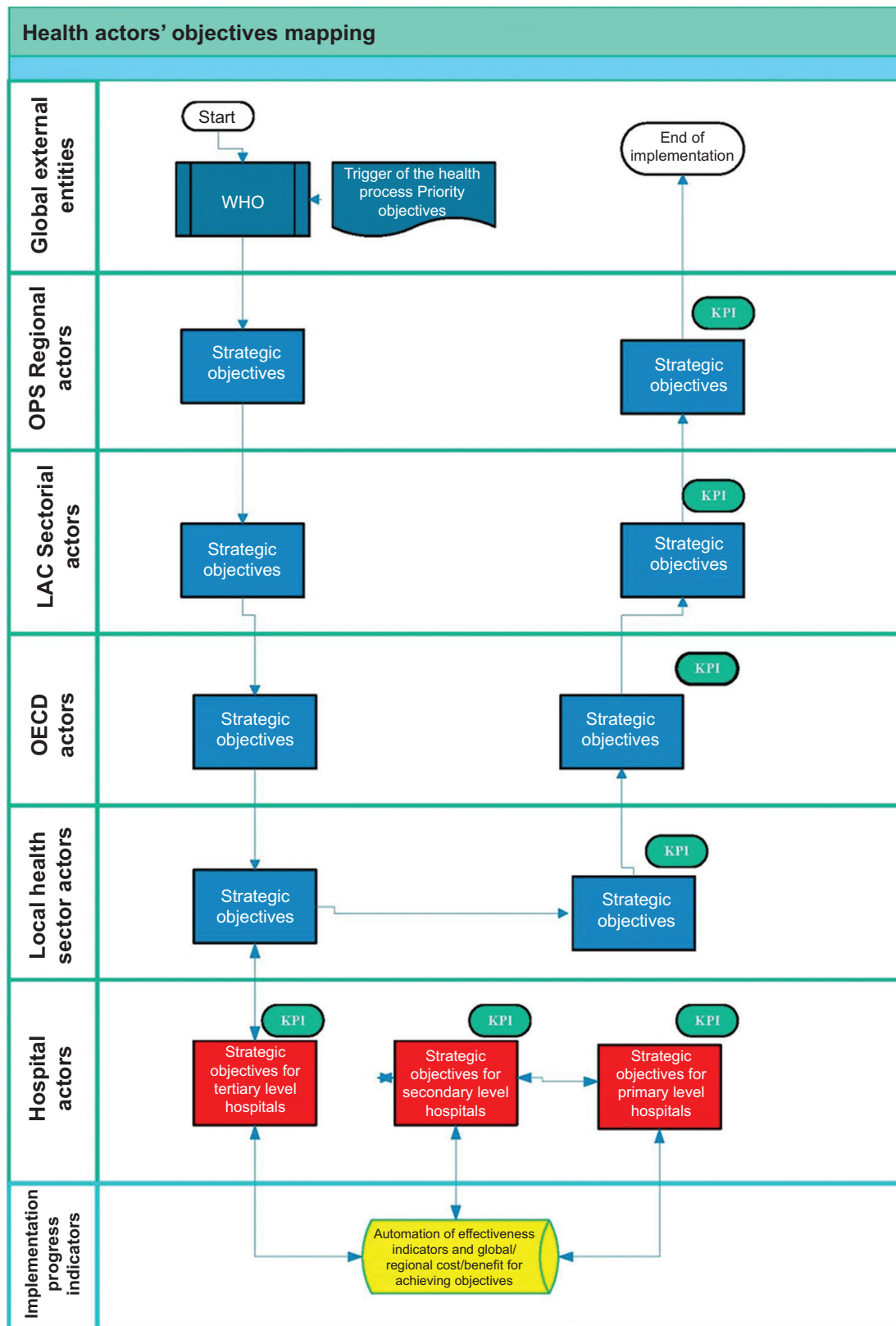


Figure 4. Health actors' objectives mapping. The interdisciplinary diagram is subdivided into 3 main parts and 1 supporting part: 1) external global entities, which is the space to link client-provider entities, such as units, directions, or external organizations to the health care process or subprocess; 2) regional or local health actors, who participate in synchronized objectives until the implementation of strategic deployment for the delivery of medical care services; 3) implementation progress indicators, used to create the database for concentrating information and monitoring indicator measurement. (Source: self-created, adapted from refs. 3 and 19).

influence, and are key in fulfilling and ensuring the continuation of the goals of public health policies for providing medical care in hospitals. The opportunity was afforded to present simple and innovative methodologies in this study, highlighting structural, strategic, and prospective analysis to identify the role of actors in their strategic alignment, and even evaluate, with KPIs, the follow-up on global, regional, or sectoral convergence or divergence in effectively achieving strategic, tactical, and operational objectives in the health care sector's value chain, where health care actors perform the health care operations to achieve the expected outcomes in medical care.

The first method involves understanding and identifying the political opposition and support that the health reform process will face. The second prioritizes factors in the MICMAC software that are determinative and sets the stage to continue with the research line of actor analysis and the construction of actor maps in relation to achieving strategic objectives with the MACTOR software, allowing for the observation of the various strategic leaders applying resources in different health care sector scenarios. In the actor objectives architecture model, both the theoretical and practical use of Microsoft Visio¹⁹ software are linked in actor mapping to visualize the actor game, while also observing, through the dashboard, the KPIs that allow measurement of the convergence in achieving effective objectives and strategies used to achieve the goals, at strategic, tactical, and operational levels.

The study presents the perspective of implementing alignment at strategic, tactical, and operational hierarchical levels in the corresponding control dashboards, with the establishment and implementation of KPIs for objectives, strategies, and goals according to their priorities, and the realization of activities with KPIs that ensure the mission, vision, and strategic objectives. In certain cases, the lines of action or corresponding initiatives are implemented in time, enabling the adjustment of strategic actions towards the expected results in the production of hospital medical goods and services.

Conclusions

Strategic actor mappings using matrices and interdisciplinary health actor objectives maps are associated with the structured quantitative analysis, based on the identification of priority variables from MICMAC and MACTOR, prioritizing strategic actions to ensure coherent strategic alignment in health care institutions,

extending to hospitals to ensure continuity of effective and efficient objectives in providing the best medical care, fostering healthy interaction and intelligent management of political interest conflicts based on the analyses performed on processes or activities.

The study, through the use of actor diagnostics, is a contribution, and its interpretation in MACTOR, along with mapping and the evaluation of process owners through KPIs, affirms the research question: Yes, global actors who make decisions can be identified, along with strategic alignment, and even the effectiveness of the various strategic levels —tactical and operational— up to hospital managers who lead the provision of medical care.

The significant involvement of actors is validated through the use of analysis methods and the MACTOR software and mapping, which can be learned in the health and hospital sector to develop disruptive proposals and strategies, preparing hospital administrators to present results based on KPIs obtained for feedback in future global or regional public health policies.

Finally, the actor analysis anticipates and visualizes in a prioritization map, convergence, and strategic power, which will impact hospitals in the future, ensuring an efficient vision of hospital medical care due to the multiple global factors and leading actors that will affect the health sector and globally in the long term.

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Conflicts of interest

None declared.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The author declares that this article does not contain any patient data.

Right to privacy and informed consent. The author declares that this article does not contain any patient data.

Declaration on the use of artificial intelligence. The authors declare that they have not used any type of generative artificial intelligence in the drafting of this manuscript, nor for the creation of figures, graphics, tables, or their corresponding footnotes.

References

1. Organización de Estados Americanos. Planificación del Desarrollo Regional Integrado: Directrices y Estudios de Casos Extraídos de la Experiencia de la OEA 1984. Departamento de Desarrollo Regional. Secretaría Ejecutiva para Asuntos Económicos y Sociales. Organización de los Estados Americanos. Washington, D.C.; enero de 1984.
2. Doing Business in México. Guía para una inversión inteligente. Convergencia y Oportunidades en el Sector Salud. PwC México; junio de 2012.
3. Torres-Salgado MK. Indicadores de desempeño de procesos médicos con alineamiento estratégico en la atención al paciente. *Cir Cir*. 2021;89:403-10.
4. Armijo M, Bonnefoy J. Indicadores de desempeño del sector público. Publicación de las Naciones Unidas; 2005.
5. Gutiérrez Pulido H. Calidad total y productividad. México: Mc Graw Hill; 2010.
6. Plan Estratégico de la Organización Panamericana de la Salud 2020-2025. La equidad, el corazón de la salud. Documento oficial: 359. Washington, D.C.: Organización Panamericana de la Salud; 2020. Licencia: CC BY-NC-SA 3.0 IGO.
7. Reich M, Cooper D. Policy maker. Computer-aided political analysis: improving the art of the feasible. Version 2.2 PoliMap. (1995-1998); 1996.
8. Infante A. Lineamientos para la realización de análisis estratégicos de los actores de la reforma sectorial en salud. Programa de Organización y Gestión de Sistemas y Servicios de Salud de la División de Desarrollo de Sistemas y Servicios de Salud de la OPS/OMS, por los investigadores del Centro de Políticas Públicas del Instituto de Estudios Superiores de Administración de Caracas, Venezuela, María Helena Jaén y Daniel Paravisini. Caracas, Venezuela: Organización Panamericana de la Salud; 2000.
9. Boudon R. La lógica de lo social. Madrid: Rialp; 1984.
10. Bourdieu P. Homo academicus. 3.ª ed. Madrid: Siglo XXI; 2008.
11. Godet M, Durance P. Prospectiva estratégica para las empresas y los territorios. París: Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO); 2011.
12. Godet M. De la anticipación a la acción. Manual de prospectiva estratégica. Barcelona: Marcombo Boixareu; 1993.
13. Godet M. El método MACTOR, Estratégico. Revista de la Fundación para Estudios de la Defensa Nacional, junio de 1996.
14. Torres Salgado MK. Process architecture with strategic indicators in outpatient medical services in highly specialized hospital. *Gac Med Mex*. 2020;155:1-9.
15. Torres-Salgado MK. Arquitectura de procesos para hospitales: construcción de modelado estratégico de indicadores. *Rev Hospital Juárez Mex*. 2022;89:136-45.
16. Porter ME. What is strategy. *Harvard Business Review*. 1996;(60-78).
17. Simon D, Fischbach K, Schoder D. Enterprise architecture management and its role in corporate strategic management. *Information Systems and e-Business Management*. 2013;12:5-42.
18. Meena K, Thakkar J. Development of balanced scorecard for healthcare using interpretive structural modeling and analytic network process. *J Adv Manag Res*. 2014;11:232-56.
19. Todo sobre Microsoft Visio® para diagramas. ¿Qué quieres hacer con tus diagramas? Lucidchart, Lucid Software. Disponible en: <https://www.lucidchart.com/pages/es/que-es-microsoft-visio>.