



The process to cope with COVID-19 supported by the control environment

Proceso de desafío a la COVID-19 apoyado en el Ambiente de Control

Leudis Orlando Vega de la Cruz¹ , Milagros Caridad Pérez Pravia¹ 

¹ University of Holguín. Holguín, Cuba.

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ABSTRACT

Introduction: the lack of references to crises similar to COVID-19 in the past makes it difficult to predict what may happen in the immediate future. Logically, the present effects of this pandemic are without doubt documented, but those that will leave their mark on the different protagonists at medium and long-term are more subject to debate.

Objectives: to demonstrate the role of the control environment as a basis for the internal control in coping with COVID-19.

Methods: the strategy to cope with COVID-19 is designed; the role of the elements that are involved in the control environment and the relationship with the process of human-health capital is evidenced.

Results: the process map to develop the strategy to cope with COVID-19 where the internal control is materialized in a cross-sectional approach, as the significance of the elements involved in the control environment such as: planning, ethical values, proven competences, organizational structure in addition to the human resources policies, and the practices, as well as the relationships with the actions established to direct the human-health capital.

Conclusions: the impact reflected to cope with this pandemic along with the elements of the control environment, as the basis for the cross-sectional process (internal control) designed for the strategy to cope with COVID-19, as well as the importance of the processes and the relationships to direct the elements involved in human-health capital, allow establishing a strategy of improvement based on an action plan.

Keywords: COVID-19; internal control; control environment; health human capital; process approach.

RESUMEN

Introducción: la falta de referencias sobre crisis semejantes a la Covid-19 hace difícil la predicción de un futuro inmediato. Como es lógico, los efectos presentes son fácilmente documentables, pero aquellos que dejarán huella en los distintos actores a medio y a largo plazo resultan más sujetos a debate.

Objetivos: evidenciar el desempeño que tiene el ambiente de control como base de control interno, en el enfrentamiento a la Covid-19.

Métodos: se diseñó el sistema de enfrentamiento a la COVID-19, al evidenciar el papel de los elementos del ambiente de control y su relación con el proceso de capital humano sanitario.

Resultados: se tiene el mapa de proceso del sistema de enfrentamiento a la COVID-19 donde el control interno se materializa de manera transversal y se demuestra la importancia de los elementos del ambiente de control como la planificación, los valores éticos, idoneidad demostrada, estructura organizativa, las políticas y prácticas de recursos humanos y su relación con el desempeño de la gestión del capital humano sanitario.

Conclusiones: la importancia reflejada en el desafío de la pandemia de los elementos del ambiente de control, como base del proceso transversal "control interno" del sistema de desafío a la COVID-19 y la importancia de la relación con los procesos de gestión de los elementos del capital humano sanitario; permitieron establecer una estrategia de mejora basadas en un plan de acción.

Palabras clave: COVID-19; ambiente de control; capital humano sanitario; enfoque de proceso.

INTRODUCTION

In this year 2020 the World Health Organization is facing-up a pandemic with lethal characteristics and a spread never seen before in the history of mankind: the coronavirus (SARS-CoV-2).

Cuba joins this task, since it is an unquestionable truth that the Cuban healthcare system has reached a relevant importance in the world scenario since the Triumph of the Revolution, it exhibits to the world the graduation of remarkable figures of doctors and healthcare specialists every year, to supply its increasing demand at national and international level. The achievements of Cuba in the field of public health, accumulated in more than fifty years, are compared to those reached by more developed countries. However, it is also facing-up for first time, in this new era, the coronavirus pandemic which is the responsible for the respiratory infection, which shortly thereafter was named COVID-19.

National healthcare authorities, in coordination with higher agencies, are working to lessen the impact of a pandemic throughout the country. Knowing what healthcare authorities are doing with respect to pandemic preparedness plans, which will provide the organizational system with information to address the potential impact of the pandemic and to develop plans of continuity. Since then, we are facing-up this pandemic where it is stressed by different means, that the individual discipline is the best behavior to face it up. However, it is also a challenge for healthcare personnel, and healthcare researchers have taken on the task of explaining the behavior of the disease from their own point of view,^(1, 2, 3, 4) presenting models of high reliability. However, it is necessary to emphasize the importance of an excellent control environment in the treatment of this pandemic. This aspect is closely related to the internal control.^(5, 6, 7)

A system that guarantees, without a doubt, that if it is effectively managed, this pandemic will be controlled, emphasizing the control environment that sustains its functioning and sets the goals towards the ways this pandemic should be controlled.

According to Resolution No. 60, the control environment component has five standards: planning, ethical values, proven competences, organizational structure, along with assignment of authority and responsibilities; in addition to the human resources policies, and practices, as well as the relationships with the actions established to direct the human-healthcare capital. However, it is significant to show how the different parts of these components are achieved to manage this pandemic.

Therefore, the objective of this article is to demonstrate the role of the control environment, as a basis for internal control, in the management of COVID-19 and to support decision-making in this aspect. The system and process approach was applied, in addition to the importance of integrating this component with the elements of the human-healthcare capital system and to direct this integration in the success of this battle with this invisible enemy.

METHODS

According to Resolution 60 of 2011, internal control is the "process integrated into operations with a focus on continuous improvement, extended to all activities inherent to the organization, carried out by the administration and the staff; it is implemented through an integrated system of rules and procedures, which help to anticipate and limit internal and external risks, which provides reasonable assurance of achieving institutional objectives and adequate accountability",⁽⁸⁾ however it goes beyond the boundaries of an organization. In these times of pandemic, it is argued that if COVID-19 coping system is internally controlled, the negative effects of the pandemic will be controlled. In this system, a highly qualified competence of the human-healthcare resources becomes indispensable, aspect that is related to the control environment.

The Control Environment component sets the guidelines for the legal and harmonic functioning of the institutions, agencies, organizations and other entities, for the development of actions, reflecting the attitude assumed by the maximum administration and the rest of the group of executives in relation to the importance of the Internal Control System. This can be considered as the basis for the other components. It is the set of good practices and documents referred to the structure of the organization, the legal framework of approved practices, the creation of its management and advisory bodies, processes, systems, policies, legal requirements and procedures; which must be the sphere of influence of all those involved and within their reach. It is structured in the following standards: planning, annual, monthly and individual work plans, integrity and ethical values, proven competence, organizational structure and assignment of authority and responsibility, policies and practices in human resources management.

RESULTS

The control environment was materialized to the Cuban efficient healthcare environment,⁽⁹⁾ specifically to the epidemiological environment for facing-up the COVID-19. This environment has been marked by the integration of all the protagonists involve in the national health system; this pandemic imposes important challenges to the healthcare professionals related to the prevention and control of infections in the community and in the healthcare institutions.

Planning

The design and implementation of effective public education strategies, which have been shown to be valuable in preventing infections, should be developed and evaluated along with the internal control integrated into these objectives in relation to the activities planned to meet with success this pandemic and also ensure the legal requirements that are applicable to this new context. Be ready for circumstances that may require increasing or decreasing demands for products and services offered by organizations during the pandemic. To determine the potential impact of a pandemic on the finances of the institution by considering multiple possible scenarios and the effects they could have on different production lines.

Integrity and ethical values

In these circumstances, the need to preserve ethics as an essential element of the politics of the country, as a guide to the revolutionary process and the thread of government management, is increasingly reaffirmed. On the other hand, actions must be established to awaken motivations, promote quality, develop ethical and moral values, and strengthen principles and convictions of healthcare personnel in general. For the understanding of these, in each area it is proposed to establish indicators of the conduct, mainly emphasizing on the values of responsibility, solidarity, love and responsiveness, respect, prudence and humility. The humanism and the professionalism of Cuban medicine and its human capital will be strengthened by the methods chosen to cope with this current pandemic and the decision of protecting people.

The communication strategy of the Ministry of Public Health is frequently updated concerning the international and national situation of the epidemic and offers recommendations to the population for its prevention and control that with certainty contributes to this purpose.^(10, 11) These were determined through a bibliographic search, in addition to consulting more than twenty healthcare professionals.

Table 1. Main values of healthcare workers

Values	Indicators of the Behavior
Ethics	Acts in accordance with the guiding principles of the human care, with correctness and complying with the internal set of laws.
Responsibility	Accomplishes responsibilities, practices compliance, and recognizes the influence of his /her quality in addition to commitment in the efficiency of teamwork.
Solidarity, love and compassion	Identifies the individual and collective needs involve in their cultural and social context, always willing to benefit others, stimulates communication and coordination of groups.
Respect	Accepts diversity and considers it as a standard of interaction among the community members Considers dignity as an important human right. Provides information to people and accepts their decisions and handles it confidentially.
Prudence and Humility	Acts wisely, with caution and moderation when making judgments; does not disclose confidential information that may harm others. Ponders the risks of the individual actions, admits mistakes and accepts suggestions and recommendations.

Source: own elaboration.

Proven Competence

Excellence in health services must be guaranteed, which should qualitatively raise the quality of medical care and the satisfaction of patients recovered from COVID-19. In order to achieve these opinions, it is necessary to have an organized staff with the required skills to work in this sector. Having qualified healthcare workers not only contributes to healthcare efficiency but also reduces risks to human lives. Therefore, it is crucial to develop appropriate management that focuses on competence-based management and is based on the principle of proven competence to ensure that the environment is favorable, and that the necessary skills are available to the healthcare worker to face this pandemic.

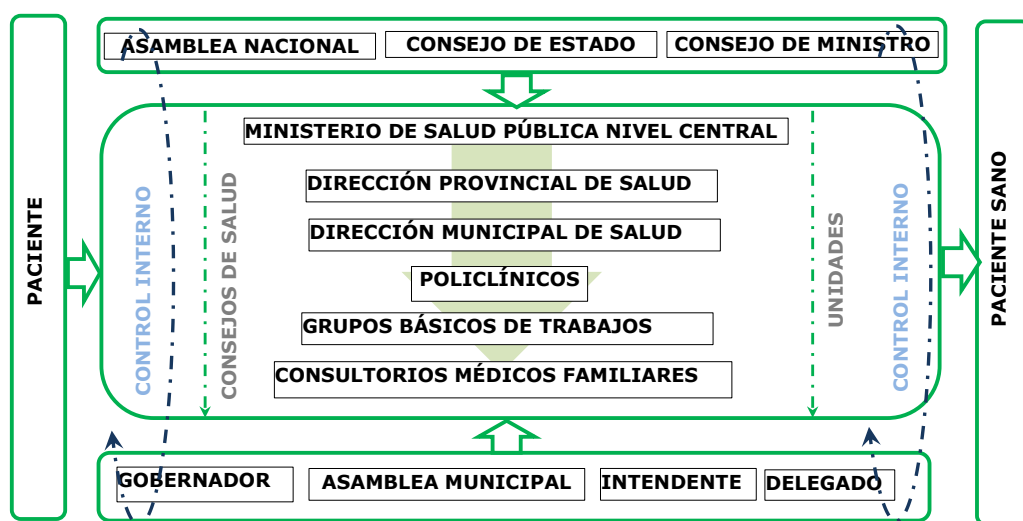
COVID-19 epidemic is a challenge for Cuban healthcare professionals who must face it having knowledge about the disease, its clinical management along with prevention and control strategies in the community and healthcare institutions.

Organizational structure and assignment of authority and responsibility

The organs of the State and the government are in function to put an end to this pandemic based on structures that strengthen the formal framework of authority and responsibility, as well as the different hierarchical and functional relationships in agreement with the processes, activities and functions that are developed.

The healthcare system is acting in an environment that makes increasingly greater demands on it to cope with COVID-19 pandemic (cases recovered, fatality, incidence rate), in view of the restrictions on the economy resulting from the economic blockade that the country is experiencing and the volume of confirmed positive cases as a consequence of the new coronavirus, and it must systematically raise the level of satisfaction of society. To achieve this, the management of this system must develop a high level of initiative and creativity in the search for and application of new set of rules to achieve greater satisfaction of the demands, even within the framework of using less resources.

In this system (fig. 1) several processes interact, considered in this research as a series of actions taken in the social aspects, as a result the quality of life is better for the population.



Source: arranged by the authors.

Fig. 1 Process of mapping for the system designed to deal with this pandemic.

Indeed, these processes continually seek to increase health by saving more lives and decreasing costs. To this end, they design of action plans that guarantee this situation after detailed analysis.

Human Capital Policies and Practices

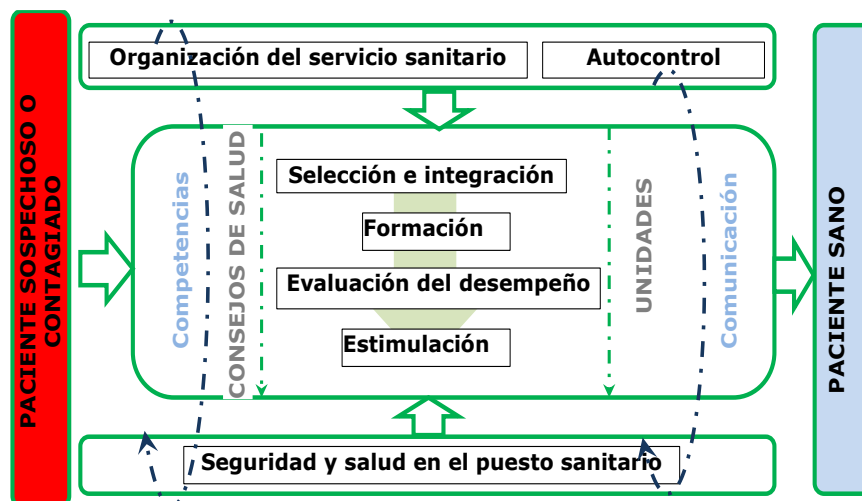
The contingent responsible for COVID-19 task must follow these practices:

- Contract of employment for healthcare personnel: rigorous and detailed selection processes, adapted to the needs of the red zone.
- Continuous training: up-to-day training processes (containing the most recent information), adapted to the needs of the red zone.
- Evaluation of the job performance: objective, performance-based evaluation processes providing feedback to healthcare personnel.
- Remuneration due to the contingency: performance-based-remuneration structures, both group and individual.
- Autonomy in the healthcare post: jobs designed for nurses, doctors, epidemiologists or healthcare technicians, or support staff to have autonomy to plan and take responsibilities.
- Communication between the administration and workers: information flows that involve healthcare workers with respect to the system of outcomes and responses when dealing with this pandemic.
- Teamwork: an area for the care of patients (those affected by the pandemic), that allows the team to work as one involving healthcare workers in the decision-making process.

Given the wide variety of human capital policies and practices, it is necessary to study in depth how these are seen by the different authors who have dealt with these issues. Similarly, training strategies should be deployed for the prevention of nosocomial transmission in healthcare workers. They require solid knowledge and skills on prevention of infection transmission in these centers and the availability of individual means of protection, always limited by our financial possibilities.

However, the greatest challenge today is to train healthcare workers in these issues and to achieve prevention of infection transmission in healthcare facilities. Train and prepare workers who can assume different positions and functions and consider the possibility of using retirees. Figure 2- it shows the human-healthcare resources system with a process approach, where the entry point is the cases of people confirmed positive with the new pandemic, the transformation is the human capital system and the exit point is the recovery of patients.

In the transformation, specifically in the red zone, the organization of the healthcare service is evidenced as strategic processes, with the new protocols that are continuously improved and together with the self-control in the units intended for this zone provide strategies for the personnel battling with this pandemic.



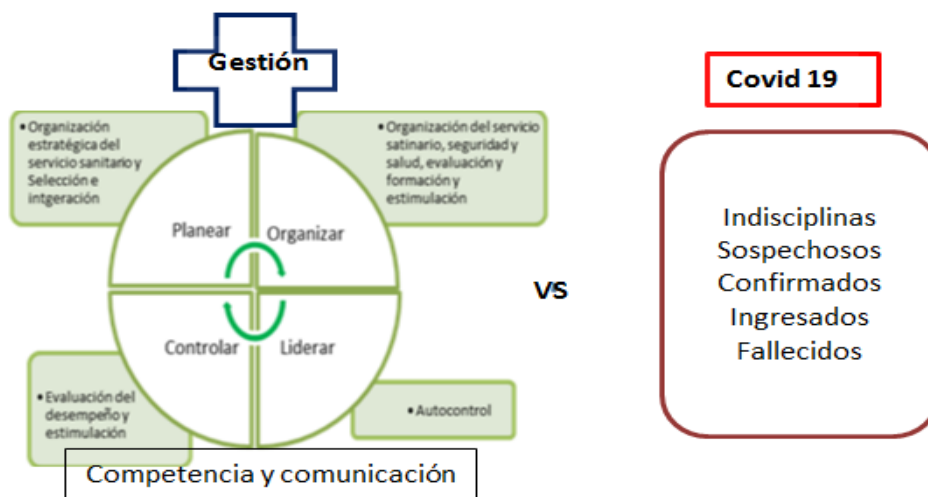
Source: arranged by the authors.

Fig. 2 Process map of the hospital human capital system.

As key processes we have the selection of the healthcare personnel that will work together in this red zone, then they are trained in this anti-vector process and their performance is evaluated during this time, and they are stimulated by their performance in the continuous process of saving lives, it is meritorious the boom that has taken within the stimulation, the moral side, the people as a whole appreciate the work of these healthcare workers in this battle, example is the daily applause at 9: 00 pm and with the strength and the feeling it is carried out, in addition to the motivation that one has for these workers in their efforts to save lives.

The vital safety and protection of the place of work are part of the support processes. In the work place, among other activities, how the epidemiological risks are managed, from the identification of these risks, to the evaluation of the impact of each risk and the measures taken to control it, in addition to the real-time tests applied to these workers even using the protective equipments. In all these processes, the competence of each healthcare personnel and the communication among the personnel are materialized in a cross-sectional way, which goes from the units, healthcare councils and isolation centers to the specialized laboratories in Santiago de Cuba, Villa Clara and Havana. Figure 3 represents the actions taken by the healthcare personnel and the battle against COVID-19.

As it is evidenced in the referred figure, it is shown in the upper left part with "Plus Sign" pointing out the increase of the actions taken (planning, organization, management and control) in the following way: it improves the planning in the strategic organization of the human resources in healthcare services, as well as the selection of this personnel and integrating them into the battle against the new coronavirus, improving the organization of the services in a secure way; besides carrying out evaluations and training in this sense, because a new and invisible enemy that, only knowing it, will allow its control, the administration will permit each healthcare institution to be divided into units and centers to be able to control it daily as a system, and finally to improve the methods of control to make the jump in order to improve it through the evaluation of the job performance and stimulation.



Source: arranged by the authors.

Fig. 3 Management of healthcare personnel on the battle against COVID-19 pandemic.

DISCUSSION

Studies have been carried out from the perspective of risks as a key component of internal control. Vega de la Cruz and Gonzalez Reyes in 2017, ⁽⁵⁾ conducted a study of internal control, which evidences the importance of the control environment in hospital units, however it does not detail the control environment with its elements related to medical personnel. On the other hand, researchers have proposed an index to evaluate the management of the control environment; the relationship of this component with the management of the medical personnel is not clearly made, it is limited to the evaluation proposed by the Self-control Guidelines for Budgeted Entities. ⁽⁷⁾

Many studies have addressed internal control in the healthcare sector. ^(6, 8, 9,) Others have specialized in specific elements of this control system. ⁽⁷⁾ Because the studies carried out in relation to the pandemic focus on the epidemiological characteristics ^(12 and 13). However; it is recognized the lack of researchers in the current battle against this 2020-pandemic. The Mathematics and Informatics Faculty of La Habana University, together with the National Direction of Epidemiology from the Ministry of Public Health, designed models of prognosis of this lethal pandemic. ⁽¹⁴⁾ This model is based on curves where scenarios are presented depending on confirmed positive cases, stable-condition cases and recovered cases. Days after the publication of this model, CUBADEBATE Website announced that the peak was coming and how COVID-19 prognostic model should be interpreted. ⁽¹⁵⁾ The expected results to the end of the pandemic will be achieved with an excellent control environment.

This article provides an approach to the study of this system focused on the control environment, where the relationship with the human capital system is evident, this integration leads to the control of the pandemic, consequently it should focus great attention to this integration, for the success in this battle, as well as lessening the lack of discipline and with these the confirmed positive cases.

CONCLUSIONS

The battle against COVID-19 in this year (2020) requires the implementation of good practices that have been successful in the organizational system, where internal control stands out as the backbone. Within this control environment which has demonstrated an important role to cope with COVID-19, the following stand out: planning, ethical values, proven competence, organizational structure with a process approach, and human resources policies and practices in the healthcare sector. It emphasizes the importance of the relationship with the management processes of the elements of human-healthcare capital. It allows establishing a strategy of improvement based on an action plan.

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