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# **Stakeholder Analysis in the Context of Healthcare Entity Managers' Activities in a Crisis Situation: A Case Study**

# Abstract

*Objectives*: The aim of the article is to present the role of the public manager in crisis management based on the analysis of stakeholders of a selected hospital.

*Research Design & Methods*: Based on the adopted research methodology, an analysis of stakeholders in a selected health care unit was performed. The study used a hospital stakeholder analysis methodology in the context of managing an emergency resulting from the coronavirus pandemic.

*Findings*: The need for a flexible approach on the part of the public manager requires a proper identification of the interests of stakeholder groups as well as the establishment of good communication. In a crisis situation, this approach is particularly important.

Implications / Recommendations: On this basis, recommendations were formulated with regard to both theoretical and practical aspects of the research problem. The role of hospital stakeholders in managing a crisis situation is indicated.

*Contribution / Value Added*: Managing a crisis situation in the context of the coronavirus pandemic is a significant challenge for managers of health care units. In the future, the presented research area can be continued, among other retrospective studies.

Keywords: crisis situation, stakeholder analysis, hospital

Article classification: research article

JEL classification: I18; I19; L32

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# Introduction

The management of a public entity, such as a public healthcare entity, in the context of dealing with the situation resulting from the coronavirus pandemic takes on a new dimension and becomes a significant challenge. In the context of management processes, the role of a professionally-competent manager (director) of a healthcare entity seems to be the most important aspect in a crisis situation. The main goal of the manager's activities is to ensure the continuity of the entity's operations in a sustainable manner, along with the implementation of tasks entrusted by authorities supervising and correcting the shape of the healthcare system at the local and regional levels on an ongoing basis. The implementation of these tasks requires building suitable relations with stakeholders and carrying out appropriate analyses to this effect.

The aim of this article is to present selected theoretical aspects of crisis management, including stakeholder analysis from the perspective of a public manager. The empirical objective of the article is to analyse the stakeholders in the context of crisis management in a selected healthcare unit. Based on the theoretical considerations, this paper presents a case study of a stakeholder analysis from the perspective of the director of a regional hospital, who is directly involved in the implementation of crisis management measures of the coronavirus pandemic. The presented analysis allowed the authors to look at management processes from the perspective of the multitude of goals of various groups of the hospital's stakeholders, making it possible to formulate recommendations that are of practical character above all.

# Public manager - characteristics

Managers of public organisations are managers of various types of executive levels, whose primary task is effective and economic – i.e. efficient – management of organisations providing high-quality public services in a broad sense. Those managers follow the criteria of political rationality, taking into account economic rationality directly resulting from the market situation (Kożuch, 2004). In the academic literature, a public entrepreneur is defined as a legitimately-elected official, a manager of a non-profit organisation, or a citizen, who is perceived by aids as the one who plays a significant role in developing and implementing innovative changes in a public sector entity (Mack, Greek, & Vedlitz, 2008).

However, there is a doubt as to to what extent a manager of a public sector entity is independent as an 'entrepreneur,' and to what extent he/she is merely an official whose workflow results from strictly defined administrative norms. Among the desirable characteristics, attitudes, and skills of managerial staff promoting success in innovative activities and creating entrepreneurial behaviour among employees, the following are indicated: effective communication (Canel & Luoma-aho, 2018), a proactive attitude consisting in constant readiness to change (Olafsen, Nilsen, Smedsrud, & Kamaric, 2020), the ability to form coalitions and gain supporters (Béland & Cox, 2016), the ability to continuously learn new behaviours, technologies, and modes of action (Jasiński, 2006), perceiving one's organisation as a set of resources and skills that must be utilised to meet customer needs (Fernandez & Rainey, 2006), shaping and developing customer-oriented thinking abilities in oneself and in subordinates, proposing new products guided by intuition and not only the results of analyses (Fountain, 2001), as well as accepting interactive partnership management (Baruk, 2005).

At the same time, for the public sector manager to be able to undertake entrepreneurial activities, he/she should: have appropriate competences and be responsible for the implementation of specific projects, have a significant degree of autonomy in decision-making and be assessed on the basis of the results achieved in accordance with the established assessment criteria, be accountable to a specific social body, as well as be able to act freely with regard to utilising both human and material resources (Kraśnicka, 2002). In a healthcare entity setting, the role of the manager is not straightforward, and the frequently adapted management style strongly depends on the current financial situation of the entity as well as the conditions dictated by the payer (NHF). It seems, however, that shaping the appropriate organisational culture is a key element of the change management process in a healthcare entity (Laukka, Huhtakangas, Heponiemi, & Kanste, 2020).

In this context, the public manager may appear as a public entrepreneur. Ramamurti (1986) was one of the first researchers to recognise the differences in characteristics and skills between public and private entrepreneurs based on the concept of 'public entrepreneur.' He stated that some elements of entrepreneurship in the private sector would be inappropriate for the public sector. In particular, entrepreneurs from the public sector do not have to realise profits and participate in high-risk investments or creating new enterprises. In his opinion, a 'public entrepreneur' is a person who undertakes or initiates intentional and active measures aimed at maintaining or developing a public organisation. He presented the leaders in the field of innovation in the public sector and diagnosed how they were able to overcome limitations, using their own personality and competence predispositions. The most important feature is the 'Getting Things Done' political skill in the public sector environment, which comes down to bringing matters to fruition.

Cornwall and Perlman (1990) took a similar perspective to that of Ramamurti's (1986). They observed that entrepreneurship in the public sector must incorporate special 'tactics' to overcome the existing barriers in the public sector. They identified the following barriers and their consequences: a multiplicity and ambiguity of goals that disrupt management; a limited managerial autonomy with a high potential for interference by the political environment, which might discourage innovation; an observation of management activities by the public, resulting in cautious management behaviours; incentives-free reward systems that discourage risk-taking; terms of office which discourage some power-holders from acting in a strategic perspective, especially when undertaking forbearance measures; and restrictive personnel policy that reduces the ability of leaders to motivate subordinates.

By contrast, Boyett (1996) focused on identifying the activities of managers in the public education and healthcare sector in the United Kingdom. She argued that public-sector entrepreneurs might differ from those in the private sector. The public sector entrepreneurs' main task is to build a system of incentives for teamwork in the public interest and to promote an organisational state in which the commitment of each employee matters. At the same time, the entrepreneurs themselves are to have self-esteem, internal motivation, and the awareness of shaping their professional careers.

Actions to stimulate entrepreneurship in the public sector were supported by the proposal to strengthen the competences of public managers. For example, Linden (2003) proposed an operational programme for public-sector managers to promote strategic thinking and action, both of which are to lead to the need for change, to introduce structural changes to strengthen and validate new methods, and to deal with risk, including the use of political skills. The development of interest in entrepreneurship in the public sector is related to the development of the concept of 'new public management' (Lane, 2000), according to which public sector organisations are to begin to show an entrepreneurial mindset. The fact that each facet related to the emergence of entrepreneurship in the private sector differs from that in the public sector is also accounted for. These factors cannot be transferred directly to public organisations. Entrepreneurship in the public sector differs from business activities sensu stricto. Entrepreneurship in the public sector is understood as a means of reducing ineffectiveness and a lack of freedom through better management and through creating favourable conditions for taking advantage of opportunities for success.

In addition to the formal requirements, there are actual skills and competences of managers

of medical facilities, both in the administrative and clinical spheres. These include: strategic skills that translate into the ability to set key objectives based on understanding the processes taking place inside and outside the organisation, task competences allowing the determination of the best approach to achieve the complex goals of a medical facility with the utilisation of available resources, the ability to cooperate with people, which is necessary for teamwork to achieve goals, and the ability to selfcontrol that allows for taking on responsibility for one's own conduct at work and outside of it. One of the biggest challenges of the managerial staff running medical facilities - along with unstable funding conditions for medical services under unlimited demand for medical services - is clearly about the management of human resources, i.e. the professionals working in medical professions (Manuszak, 2019). Furthermore, experts highlight leadership skills among the skills particularly useful in managing medical facilities (Fraczkiewicz-Wronka & Austen-Tynda, 2009).

Moreover, the public value concept is currently of utmost importance. This notion is based on the assumption that the role of administration is not only to provide citizens with the necessary services, but also to actively shape the public sphere by animating the processes of defining goals to be achieved as well as creatively seeking optimal ways to utilise available resources. It is not enough to adhere to the adopted business pragmatics and be sensitive to the needs of stakeholders; the new role of the public manager also implies a creative search for opportunities to multiply public value (Szczupaczyński, 2016).

Currently, it seems important for a public manager to have crisis management skills (Trachsler & Jong, 2020), as stakeholder analysis shows (Van der Wal, 2020).

# Management in a crisis situation in a public healthcare entity

Public crisis management plays a fundamental role in resolving – under time pressure – crisis

situations which involve risks and security threats. It consists in counteracting threats, preparing for what comes in the event of their occurrence, and maintaining or restoring the state of stabilisation. The purpose of public crisis management is to minimise potential threats and carry out efficient and effective actions in the event of their occurrence. To a large extent, this efficiency and effectiveness depends on the skills, competences, and knowledge of the people managing the activities. Public crisis management is also to ensure rationality in taking actions and managing resources, i.e. enabling their selection and allocation in such a way as to ensure the maximisation of effects. The essence of public crisis management is the formulation of action goals as well as planning, acquiring, and organising resources (human and material), and command and control, all of which are the basic management functions (Kisilowski, 2019). The awareness of the existence of risk in various crisis situations is a condition for the effectiveness of the decisions made. Risk means the possibility of a phenomenon or a project, whose outcome is unknown. It is impossible to eliminate the risk completely. However, risk management gives the opportunity to overcome difficulties in a rational way, to draw conclusions, and to improve performance (Kisilowski, 2019).

Despite the diversity, ambiguity, and equivocality of the interpretation of crisis phenomena in an organisation, their common characteristics can be indicated, namely: a permanently disturbed activity of the organisation; the actual or apparent loss of control over its activities; an internal imbalance of the organisation; a threat to the existence of the organisation or its part (functions); a deterioration of the financial condition over the organisation; a limitation of its development possibilities; a threat to the achievement of the company's strategic goals; an ambivalence of development and remedy opportunities; the possibility of violating or losing public confidence and internal faith in the organisation, which worsens its image; short decision-making time; high degree of uncertainty, causing concerns and fear among employees; low predictability, i.e. an element of surprise (Zakrzewska-Bielawska, 2008).

The public manager's reaction under a crisis situation is to take appropriate management actions. Anti-crisis management is a process in which the threat of a crisis is predicted, its symptoms are analysed, and measures limiting the negative consequences of a crisis are implemented. In consequence, crisis factors are used to continue the development process. The anti-crisis management system should make it possible to prevent and effectively overcome the crisis. However, its essence is not only to anticipate and eliminate a crisis. It is also triggering, accelerating, eliminating, anticipating, limiting, directing, analysing, implementing, and assessing a crisis situation. On this basis, it is possible to characterise a number of activities that should be included in anti-crisis management. The first one is prevention, i.e. all measures that allow one

Area	Scope
Organisation and management	<ul> <li>defining the conditions and how to activate the crisis management plan;</li> <li>establishing the coordination rules and appointing persons responsible for individual activities;</li> <li>indicating who, when, and how carries out the movement of patients;</li> <li>establishing rules for the movement of personnel within the facility;</li> <li>streamlining contact with medical services providing assistance at the pre-hospital stage;</li> <li>locating patients in need of emergency medical assistance;</li> </ul>
Human Resources	<ul> <li>ensuring the availability of personnel, especially those most familiar with the functioning of the hospital in a crisis situation;</li> <li>designing the so-called task forces divided into management, logistics, and medical assistance;</li> <li>replenishing human resources – medical students, volunteers or retired specialists joining the hospital team;</li> <li>providing facility employees with the fullest possible protection against the pandemic virus infection;</li> </ul>
The process of providing healthcare services	<ul> <li>medically segregating patients according to the priority of providing assistance;</li> <li>determining diagnosis and treatment algorithms, optimising the utilisation of available resources;</li> <li>relieving facilities by providing medical assistance at the patient's place of stay;</li> <li>keeping accurate patient records;</li> <li>communicating with patients' families;</li> <li>maintaining quality standards and the availability of provided medical assistance;</li> <li>increasing the capacity of facilities to receive a growing number of patients;</li> <li>providing psychological support, both for patients and staff;</li> <li>minimising the risk of hospital-acquired infections;</li> </ul>
Available resource utilisation	<ul> <li>securing financial reserves necessary to cover unexpected expenditure;</li> <li>planning flexible use of hospital facilities;</li> <li>planning and day-to-day alignment of the supply of medical and non-medical resources (e.g. water, food, communication equipment, etc.) in order to satisfy the growing needs of patients;</li> <li>maintaining the continuity in the hospital operation;</li> <li>protecting the hospital staff and environment against various consequences of widespread panic;</li> <li>establishing procedures for dealing with the deceased;</li> <li>proper cleaning, disinfection and waste management in order to reduce hospital-acquired infections.</li> </ul>

Source: Religioni, Czerw, Walewska-Zielecka, & Augustynowicz, 2014, pp. 187-188.

to avoid the crisis. The organisation's managers analyse all warning signals before a crisis situation occurs. The next step is to prepare for the crisis by creating an action plan, assessing the threat, and appointing a team responsible for anti-crisis management. The next stage is the implementation of anti-crisis measures, where individual parts of the implemented plan should be monitored on an ongoing basis to eliminate any procedural errors. The final step is to assess the response to the crisis, which allows the organisation to gather knowledge, and this information can be used in the future to combat subsequent crises. All these stages contribute to a certain cycle, owing to which it is possible to analyse a crisis situation effectively and select appropriate tools to deal with it (Strzemecki, 2015).

An important goal of proper organisation of medical care in a pandemic situation is to ensure control over expenditure and prevent the misuse of financial, technical, and human resources. To achieve this goal, a key role is played by the principle of grading the utilisation of available forces and resources, which means the use of previously prepared resources only after exhausting the possibilities of the healthcare sector as well as the medical and sanitary-epidemiological services that operate on a day-to-day basis (Religioni, Czerw, & Walewska-Zielecka, 2014). The management literature and practice often refers to influenza pandemic situations, which might, to some extent, be utilised for the coronavirus situation. Table 1 presents four basic areas of operation of each medical facility: organisation and management, human resources, the process of providing health services, and the utilisation of available resources in the context of crisis management.

The above-mentioned activities refer to various groups of stakeholders, the involvement of which – in the form of appropriate relations built with them by the manager of the medical entity – is of strategic importance for the effectiveness of anti-crisis management.

# Analysis of stakeholders in a crisis situation

The usefulness of stakeholder analysis in a crisis situation has been acknowledged for many years (van der Meer, Verhoeven, Beentjes, & Vliegenthart, 2017; Kapucu & Ustun, 2018; Wood, Mitchell, Agle, & Bryan, 2021). In the context of COVID-19, this analysis has taken on particular importance (Schomaker & Bauer, 2020).

When considering the stakeholders, it should be borne in mind that an organisation strives for an appropriate level of legitimacy towards them, also while accounting for crisis situations. Furthermore, the influence of stakeholders might be synergistic for the functioning of the organisation, but also dyssynergic, i.e. caused, e.g., by an obvious conflict of interest. The emergence of sudden impulses in the organisation's environment might prompt an incidental/entrepreneurial approach to stakeholders (Chodyński, 2016).

In view of possible threats, it is worth referring to the literature related to the analysis of stakeholders. The organisation should prepare for a crisis by assuming variable and overlapping stakeholder roles. When creating a map of relations with stakeholders, it should be indicated which of them operate simultaneously, e.g., employees and activists of the local community, or employees and members of non-governmental organisations of some significance to security. A stakeholder analysis procedure can be useful. It consists of identifying the stakeholders (selecting stakeholders, determining the hierarchy of their importance), clarifying the stakeholder-organisation relationship (based on stakeholder expectations), and preparing conclusions (Chodyński, 2016).

# **Research methods**

Stakeholder analysis is the systematic collection and analysis of quantitative and qualitative data for the purpose of determining whose benefits should be a decisive criterion when designing or implementing activities. This method is based on the identification and assessment of people, social groups, or institutions that are key to the project and that bear an influence on the success. The characteristics of the stakeholders subject to analysis are, above all: their knowledge about the project, benefits for particular stakeholder groups, support or lack of support for the project, alliances between stakeholder groups, as well as the ability to influence the project implementation process. In the classic approach to stakeholder analysis, the following stages can be distinguished:

- identifying stakeholders and creating the list;
- analysing the benefits and interests of the project for the stakeholders;
- assessing the influence and importance of stakeholders;
- combining influence and importance in a matrix system;
- identifying stakeholder risk;
- identifying proper stakeholder involvement (Frączkiewicz-Wronka & Austen-Tynda, 2009).

Notably, the possibilities of the purposeful shaping of relations with stakeholders are very limited, posing new challenges for those responsible for this area of public organisation management (Ćwiklicki, 2011). The presented method of stakeholder analysis was used in the analysis of the selected hospital case. One of the authors of the article is the director of the unit and as much carried out a retrospective analysis on the basis of his own observations<sup>1</sup>.

# The characteristics of the entity

The Province Specialist Hospital is a highly specialised healthcare facility. It has a wellequipped diagnostic and therapeutic base, available both in hospital wards and in specialist clinics, such as the Medical Imaging Department and other diagnostic laboratories (the hospital structure includes Magnetic Resonance, Computed Tomography, and Vascular Examination laboratories). Currently, the structure includes 18 hospital wards, a number of specialist clinics, and activities in the field of primary health care as well as night-and-bank-holiday health care.

# The functioning of the Province Specialist Hospital during the SARS-CoV-2 pandemic

In mid-March 2020, the Ministry of Health compiled a list of hospitals dedicated to treating patients with COVID-19. The Province Specialist Hospital was not classified as a COVID-19-dedicated centre, but due to the dynamic epidemiological situation in the region and a large percentage of sick residents, it still struggles with many problems during the pandemic. Providing appropriate medical care in the current epidemiological situation is becoming a big challenge for medical personnel, management, founding bodies, and state bodies alike. In the face of the SARS-CoV-2 threat, meeting all the statutory goals of the hospital is difficult to achieve, and adequate preventive healthcare and employee protection are both necessary to ensure the continuity of the services provided. The balance between maintaining financial liquidity, the fulfilment of obligations related to the National Health Fund, the compliance with all the contracts with contractors, and the guarantee of full infection control - which, in turn, translates into ensuring the safety of staff and the continuation of the entity's operations - are all becoming the priority of the Head of the Hospital.

The new task that the management is facing is the acquisition of funds for the purchase of personal protective measures and equipment. An additional difficulty is the fact that materials are not available on the Polish and foreign markets. A novelty is training staff on the current epidemiological situation of COVID-19 in the country and in the world, known risk factors for infection, clinical symptoms, and recommended preventive measures. Creating new procedures – including the proper performance

<sup>&</sup>lt;sup>1</sup> Stakeholder analysis was created as a project within the 'Management in Health Care' postgraduate studies conducted at the University of Economics in Katowice.

of triage, limiting contact with people with symptoms of SARS-CoV-2 infection, the possibility of isolating them, conducting a medical interview, examining the patient and applying a medical procedure adequate to the clinical condition, and collecting virus genetic material with the use of appropriate personal protective equipment - have all become the norm in everyday hospital work. It should be emphasised that these procedures are changeable and are being constantly improved to ensure the highest level of security. Due to technical reasons and housing possibilities, one of the most difficult challenges is the designation of isolation places for patients with suspected SARS-CoV-2 infection, as well as for people presenting for elective procedures. There is also the matter of transport and transfer of patients with confirmed infection to one of the COVID-19-dedicated hospitals.

One cannot forget about the enormous influence of the external environment – from legislative bodies led by the government and local authorities, including the founding body, through local politicians who influence the shape of the healthcare policy in the region, to the local community which is the direct recipient of the provided medical services.

# Stakeholders analysis of the Province Specialist Hospital

The main goal of the project is to ensure appropriate conditions and implement procedures related to counteracting the coronavirus pandemic. As part of the project, one can indicate a number of tasks necessary for its implementation:

- 1. Obtaining funds for the purchase of personal protective equipment;
- 2. Purchasing personal protective equipment;
- Personnel training in the prevention of infections, use of personal protective equipment, compliance with procedures for dealing with a patient suspected of being infected with or suffering from COVID-19;

- 4. Developing segregation, isolation, and examination procedures, and further management of a patient suspected of being infected with SARS-CoV-2;
- 5. Developing procedures for isolating patients in wards, and in the event of a positive result – the procedure for transferring patients to a COVID-19-dedicated centre;
- 6. Developing procedures for taking swabs in order to conduct diagnostics as well as selecting and defining the principles of cooperation with the laboratory carrying out the tests;
- 7. Ensuring that employees are tested for contact with the patient, designating alternative places of residence to isolate them from the immediate family;
- 8. Designating separate areas for hospital staff to minimise contact with potentially infected people;
- 9. Proper disinfection of facilities and equipment to break the virus transmission chain, as well as sterilisation of personal protective equipment for reuse;
- 10. A social campaign aimed at raising awareness and promoting knowledge about the SARS-CoV-2 virus among the local community to ensure that patients coming to the hospital apply all safety standards, which will protect both the patients and the staff of the entity;
- 11. Compliance with legal acts issued by the Ministry of Health as well as the founding body;
- 12. Compliance with the current standards of treatment announced by scientific societies as well as province and national consultants. In line with the methodology introduced in the theoretical chapter, a list of stakeholders involved in the project implementation is presented at a later stage. In addition, a list of the main tasks and interests of individual stakeholder groups is provided.

The influence and importance of stakeholders as well as their risks were assessed in the next stage of the stakeholder analysis. The summary of the analysis is presented in the table below.

# Table 2. Summary of tasks and interests of stakeholder groups

# 1. Physicians

- *Tasks* Provision of health services; active participation in promoting the prevention of SARS-CoV-2 infections; participation in training courses aimed at the proper use of personal protective equipment; compliance with the procedures for dealing with a patient suspected of being infected with or suffering from COVID-19, segregation, isolation and examination procedures, and further treatment of a patient suspected of being infected with SARS-CoV-2; taking swabs for genetic testing for SARS-CoV-2 infection; complying with all procedures aimed at reducing the SARS-CoV-2 virus transmission.
- Interest Safety in the workplace

## 2. Physicians Managing Wards

- *Tasks* Provision of health services; close cooperation with the hospital administration, including the Quality Department and the Infection Department, in order to jointly develop procedures for dealing with a patient suspected of being infected with or suffering from COVID-19, procedures for segregation, isolation and testing, and further management of a patient suspected of having SARS-CoV-2 infection; enforcing compliance with procedures for dealing with a patient suspected of being infected with or suffering from COVID-19, segregation, isolation and examination procedures, and further treatment of a patient suspected of having the SARS-CoV-2 infection.
- Interest Maintaining the continuity of the ward's operation and fulfilment of the contract with the payer and care for the financial result of the unit run by the physician while ensuring the highest standards of medical care.

### 3. Nurses

- *Tasks* Care for patients with suspected SARS-CoV-2; active participation in promoting the prevention of SARS-CoV-2 infections; participation in training courses aimed at the proper use of personal protective equipment.
- Interest Safety in the workplace. This group shows great interest in the project, the implementation of which translates directly into their work.

### 4. Administration

- Tasks Participation in all tasks necessary for the implementation of the project.
- *Interest* Fulfilling the hospital's mission and obligations; maintaining the financial liquidity of the entity; safety in the workplace.

# 5. Hospital-acquired Infection Control Team

- *Tasks* The monitoring and recording of hospital-acquired infections; fighting epidemic outbreaks of hospital-acquired infections; implementation of the hospital-acquired infection control programme and reporting to the members of the committee and hospital administrators.
- Interest Development of appropriate procedures while adhering to guidelines in order to prevent viral transmission and reduce the possibility of hospital-acquired infections.

### 6. Hospital pharmacy

- *Tasks* Collecting orders from individual hospital units for personal protective equipment; ordering directly from warehouses and wholesalers; receipt of equipment, its record, and deployment to individual units.
- *Interest* Prior collection of orders for personal protective equipment from individual hospital units to ensure an adequate quantity of materials for wards in a continuous way.

# 7. Laboratory

- Tasks Performing genetic tests for the SARS-CoV-2 infection.
- *Interest* It is in the interest of the laboratory to properly train employees, have quality certificates, as well as have good quality equipment and reagents.

## 8. Transport Department

Tasks Qualified patient transport.

Interest Safety in the workplace.

# Table 2 – continued

# 9. Cleaning company

- *Tasks* Cleaning of individual hospital units; observing the procedures for segregating used materials, cleaning and disinfecting usable surfaces and patient rooms.
- Interest Financial benefits of additional disinfection services while maintaining safety in the workplace.

#### 10. Central Sterile Supply Department

- *Tasks* Proper disinfection of facilities and equipment to break the virus transmission chain; sterilisation of personal protective equipment for reuse.
- Interest An adequate financing and acquisition of new sterilisation devices as well as additional training for employees to ensure proper disinfection of both the equipment and hospital facilities in accordance with the canons of knowledge and with the use of technical innovations.

### 11. Minister of Health

- *Tasks* Setting standards of treatment during the pandemic REGULATION OF THE MINISTER OF HEALTH of 20 March, 2020, on the declaration of an epidemic in the territory of the Republic of Poland; determining how public sector entities are financed to combat and prevent COVID-19.
- Interest Conducting a health protection policy; ensuring the health security of citizens.

#### 12. Marshal of the Silesian Province

- *Tasks* Maintaining the continuity of the hospital's operation in order to provide medical care in the region; purchasing medical equipment and personal protective equipment.
- Interest Maintaining the continuity of medical services in the region.

#### 13. Silesian Province Office

Tasks Organising healthcare in the Silesian Province; obtaining funds to fight the COVID-19 pandemic.

Interest Good organisation of healthcare in the Silesian Province.

# 14. Local government units

Tasks Health safety of the inhabitants; obtaining funds to fight the COVID-19 pandemic.

Interest Health safety of the inhabitants.

## 15. Local Politicians

Tasks Health safety of the inhabitants; obtaining funds to fight the COVID-19 pandemic; organising social campaigns.

Interest Activities for the local community.

## 16. Local community

Tasks Complying with all the procedures aimed at reducing the SARS-CoV-2 virus transmission.

Interest Maintaining the continuity of hospital operations.

#### 17. Silesian Branch of the National Health Fund

Tasks Providing health services; taking proper care of the implementation of the NHF financial plan.

Interest Providing health services for the region's inhabitants.

## 18. Material Reserves Agency

*Tasks* Maintaining strategic reserves, including their storage, replacement or substitution, as well as the maintenance of stored strategic reserves.

Interest Maintaining a proper quantity of strategic reserves.

## 19. Manufacturers of protective equipment

Tasks Production and sales of personal protective equipment.

Interest Economic benefit related to the production and sales of personal protective equipment.

# Table 2 – continued

## 20. Chief Sanitary Inspectorate

- *Tasks* Developing segregation, isolation, and examination procedures, and further treating a patient suspected of being infected with SARS-CoV-2; creating procedures for isolating patients in wards and in the event of a positive result the procedure for transferring patients to a COVID-19-dedicated centre.
- Interest Limiting the effects of the pandemic by creating appropriate procedures.

## 21. Scientific Societies, National and Province Consultants

- *Tasks* Developing treatment procedures and recommendations as well as participating in their implementation during the SARS-CoV-2 pandemic; creating and participating in information campaigns.
- Interest Developing procedures and guidelines for dealing with the pandemic.

# 22. Donors

Tasks	Donating funds or	nurchasing personal	protective equipment.
IUSKS	Donating funds of	purchasing personal	protective equipment.

Interest They are characterised by selflessness and a generally humanitarian attitude, i.e. one full of understanding and kindness towards other people.

# 23. Local media

Tasks Participating in a social campaign to raise the awareness and spread the knowledge about the SARS-CoV-2 virus.

Interest Reaching the recipient by increasing the coverage.

Source: own elaboration.

# Table 3. Stakeholder influence, importance and risk

Stakeholders	Influence	Importance	Risk level
	1= negligible / no influence 2= low influence 3= moderate influence 4= profound influence 5= very influential player	1= little / unimportant 2= not very important 3= moderately important 4= very important 5= influential player	– 0 + '-' small risk; '–' big risk; 0 – no data
1. Physicians	4	5	++
2. Physicians Managing Wards	4	5	++
3. Nurses	3	5	++
4. Administration	5	5	-
5. Hospital-acquired Infection Control Team	5	5	++
6. Hospital pharmacy	3	2	+
7. Laboratory	3	3	+
8. Transport Department	3	5	-
9. Cleaning company	4	5	-
10. Central Sterile Supply Department	4	5	-
11. Minister of Health	2	3	-
12. Marshal of the Silesian Province	2	3	-
13. Silesian Province Office	5	5	++

Table 3 – continued
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Stakeholders	Influence	Importance	Risk level
	1= negligible / no influence 2= low influence 3= moderate influence 4= profound influence 5= very influential player	1= little / unimportant 2= not very important 3= moderately important 4= very important 5= influential player	– 0 + '-' small risk; '–' big risk; 0 – no data
14. Local government units	3	4	-
15. Local Politicians	3	4	-
16. Local community	3	4	+
17. Silesian branch of the NHF	2	3	-
18. Material Reserves Agency	4	4	++
19. Manufacturers of protective equipment	3	3	++
20. Chief Sanitary Inspectorate	4	4	+
21. Scientific Societies, National and Province Consultants	4	2	-
22. Donors	4	4	++
23. Local media	4	1	

Source: own elaboration.

Based on the matrix system that takes into account the influence and importance, these groups of stakeholders should be divided into:

1. A strategically important group with great influence and a high level of importance for success – good communication and close cooperation with these stakeholders is key, and maintaining good relations becomes a priority task. This group includes: Physicians, Ward Managing Physicians, Nurses, Administration, Hospital-acquired Infection Control Team, Transport Department, Cleaning company, Central Sterile Supply Department, Silesian Province Office, Local government units, Local politicians, Local community, Material Reserves Agency, Manufacturers of protective equipment, Chief Sanitary Inspectorate, Donors.

2. A group of great importance but little influence – they will require the implementation of a cooperation strategy and separate communication channels. These include: Laboratory, Minister of Health, and Marshal of the Silesian Province.

3. A group with a profound influence but little importance for the implementation of the project – they can have a negative influence on the implementation of the project. Therefore, the strategy of cooperation with these stakeholders must be well-thought-out and the relations should be well-balanced. The members of this group include: Hospital Pharmacy, Scientific Societies and Consultants, Local Media.

The last stage of the stakeholder analysis comprises the assessment of the communication strategy and identifies the appropriate stakeholder involvement. However, due to the limitations related to the size of the study, only conclusions resulting from these stages will be presented below.

The listed stakeholders have the greatest influence on the project performance. Their reactions to actions taken by organisations can directly translate into cooperation. The balance between

Stakeholders	Communication strategy assessment
1. Physicians	The main form of communication will be the use of official information channels, mainly via electronic correspondence as well as updated messages on the hospital's Website.
2. Physicians Managing Wards	Information will be provided during formal meetings – which in times of the pandemic have become a teleconference – and informal meetings with individual Managing Physicians.
3. Nurses	The main form of communication will be the use of official information channels, mainly via electronic correspondence as well as updated messages on the hospital's Website.
4. Administration	Both formal and informal meetings should be reduced in favour of teleconferences, telephone, and email contacts.
5. Hospital-acquired Infection Control Team	The predominant form will be formal meetings – although there are also informal ones – using all available information channels, teleconferences, telephone calls, and e-mails.
6. Hospital pharmacy	Formal communication via telephone calls and e-mail predominates.
7. Laboratory	Formal communication via telephone calls and e-mail predominates.
8. Transport Department	Formal communication via telephone calls and e-mail predominates.
9. Cleaning company	Formal communication via e-mail predominates.
10. Central Sterile Supply Department	Formal communication via e-mail predominates.
11. Minister of Health	Formal communication via e-mail predominates.
12. Marshal of the Silesian Province	Formal communication via e-mail predominates.
13. Silesian Province Office	The predominant form will be formal meetings via all the available information channels, mainly teleconferences, telephone calls, and e-mails, with a limited possibility of direct contact.
14. Local government units	As in the previous stakeholder groups, the predominant form will be formal meetings in the form of teleconferences, telephone calls, and e-mails, with a limited possibility of direct contact.
15. Local Politicians	The predominant form will be informal meetings, which might be difficult in the current pandemic situation.
16. Local community	News is disseminated through the local press and social media.
17. Silesian branch of the NHF	Formal communication via e-mail predominates.
18. Material Reserves Agency	Formal communication via e-mail predominates.
19. Manufacturers of protective equipment	Formal communication via e-mail predominates.
20. Chief Sanitary Inspectorate	Formal communication via e-mail and telephone calls predominates.
21. Scientific Societies, National and Province Consultants	Formal communication via the media and the Internet predominates.
22. Donors	Informal communication through meetings predominates.
23. Local media	Information is provided during official meetings, press briefings as well as through publications and press releases posted on the entity's Website.

Table 4. Assessment of the communication strategies of stakeholder groups
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Source: own elaboration.

the efforts of these groups to achieve their personal goals and their involvement in the implementation of the project can be difficult. One should strive to build a 'support coalition' by entrusting stakeholders with tasks aimed at planning and implementing the plan. Appropriate communication and individual approach will contribute to the creation of groups supporting stakeholders and aimed at success. This will allow for building a team focused on the implementation of the assumed project.

# **Concluding remarks**

Owing to the use of stakeholder analysis, one can get familiarised with the closest environment in which the surveyed organisation operates. By means of appropriately identifying persons and groups of entities cooperating with a given unit, defining their mutual influences and dependencies, creating appropriate communication channels, as well as identifying key partners and determining their involvement, a crisis response strategy can be built. New tasks related to the pandemic are difficult and constitute a profound challenge for all the participants of the healthcare system. In the era of global threats, it is necessary to fight the effects of the SARS-CoV-2 infection, and the efficiency of medical institutions, the creation of appropriate procedures, and having a proper quantity of equipment, medicines, and personal protective equipment as well as qualified personnel will all significantly affect its result.

The development of a plan securing hospital employees is key to maintaining the continuity of the services provided by a given entity. Unfortunately, numerous inconveniences related to the planning, implementation, and enforcement of project assumptions can raise objections from various stakeholder groups, which will considerably translate into its final result. The appropriate level of funding and obtaining alternative sources can contribute substantially to the completion of the project while maintaining a stable financial situation of the entity. The implementation of all points of the programme is difficult and burdened with high risk. Furthermore, the need for a flexible approach on the part of the public manager requires proper recognition of the interests of the concerned groups as well as the creation of good communication, which, in consequence, will directly affect the end financial and non-financial result.

The presented case study is an example of the use of stakeholder analysis during the management of the coronavirus pandemic crisis. Obviously, the choice of one specific case is a limitation of the undertaken research, but at the same time it can provide inspiration for further studies in this area. These could include comparative analyses, evaluations obtained from individual stakeholders, and multi-annual analyses.

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