

Systems of Prevention in Crisis Management in the Czech Health Care or COVID-19

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Abstract: This paper aims at the Czech health care and its systems of prevention in crisis management that is one of the most popular topics nowadays connected not only with the crisis related to the COVID-19. The current situation that has arisen in connection with the COVID-19 emergency shows, above all, the importance of risk prevention in the context of crisis management and confirms the need for emergency crisis management in the public health sector, not only in the Czech Republic but in the whole globalized world. Being able to identify risks correctly and then control them must become crucial for risk management in the health sector. Priority systems in crisis management are crucial for successful functioning of the health care in the Czech Republic and its economic stability. Prevention in crisis management is fundamental for successful functioning of the health care in the Czech Republic and its economic stability. It is necessary to say that nowadays it is specifically the topic often pursued and discussed, not only by professional, but also by the general public. It is important to say that health service represents specific field that deserves considerable attention in terms of its scope.

Key words: health care; crisis management; covid-19; efficiency management; kpis' key performance indicators

JEL codes: I12, G10

1. Introduction

The 21st century is modern, dynamic, informational, and globalized, but also more risky, sensitive, and more vulnerable. The goal is a rapid response, capacity, risk prevention, health, material, and economic preparedness of crisis management in health care.

The health care sector is a very specific industry and for that reason, the subject is often monitored and discussed both by professionals and the public. Historically, the system of the Czech health care has its roots in 1883, when within the frame of the Bismarck's model of social security and health insurance, the system was established. This model was well defined and extremely beneficial. The profound problem of the Czech health care was associated with the former influence of the Soviet centralized system style, so called Semashko model, which went through changes as a centralized and rigid one in many aspects. Efficient management uses special approaches and methods, and from its point of view health care represents highly specific field with respect to its action radius which deserves our full attention.

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In the Czech Republic, the health care program is based on the model of the welfare state that is a sort of the heritage of the historical development after the World War II. This system has changed after 1989, when health care institutions such as hospitals or other medical facilities started to be reimbursed for health care with the guarantee of newly established health insurance companies. Revenues of health care institutions are a combination of direct payments and payments in the form of reimbursements by the Ministry of Health.

The structure of the article is as follows. After the introduction, the paper presents characteristics of the health care system in the Czech Republic. The second part concerns crisis management and its systems of prevention. This article applies a case study using the crisis situation COVID-19 with its influence on the crisis management in the Czech Republic. The last part provides conclusion and recommendations.

2. The Czech Health Care

The legislation of the Czech Republic in the field of health is primarily regulated by the act No. 176/2002 on Public Health Insurance. Above mentioned law allows every citizen of the Czech Republic to use the services of any medical facility providing emergency care, or those authorized medical institutions having a valid contract with a health insurance company for the provision of medical treatment. There is an important element of solidarity and equality in the Czech health care system. In the Czech Republic, the health programme comes from the model of the welfare state. This concept results from historically evolving political process after the World War II, which had developed over several decades until the victorious Velvet Revolution in 1989. Owing to its funding and budgeting, the system of medical care is specific. This means that patients are not expected to pay directly for services rendered (PARIS, 2008). Moreover, patients are not even aware of the real cost of the medical services they have consumed. The oldest and functional system of health insurance exists in Germany and it was established by Otto von Bismarck.

The health system is intended to provide public health care, and therefore it is very complicated to include in the system private health facilities that could bear resemblance in terms of services provided by public hospitals. The number of treated patients in 2019 you can see in the Figure 1.

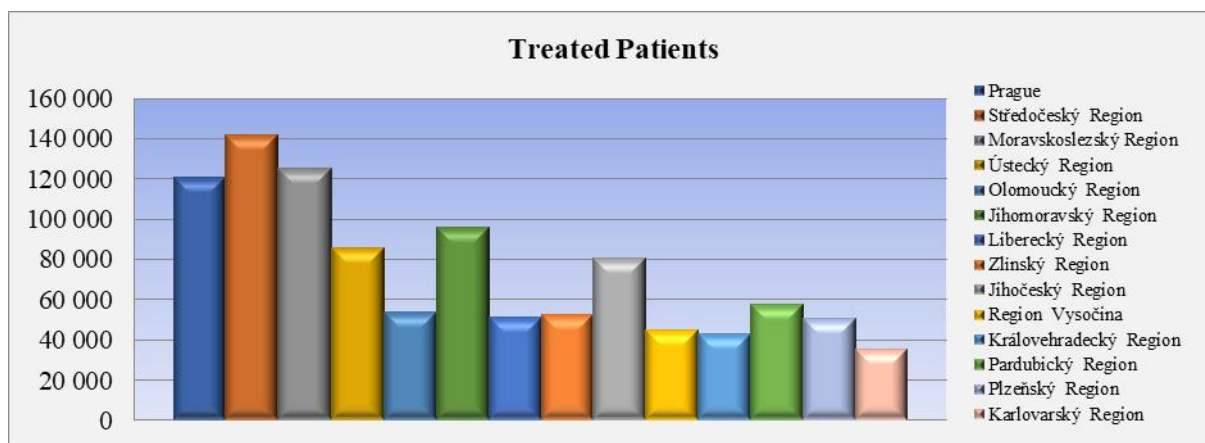


Figure 1 Number of treated Patients in the Czech Republic 2019¹

The lack of competitiveness has been gradually, to a large extent, dividing the market offering services that

¹ <https://www.azzs.cz/data/web/dokumenty/Vybran%C3%A9%20ukazatele%20ZZS/Vybran-ukazatele-ZZS-R-za-rok-2019-b.pdf>.

are with minor exceptions offered by private clinics (e.g., laser eye surgery, aesthetic surgery, assisted reproduction, etc.) and the vast majority of the other medical services in public hospitals. Private clinics provide individual medical services, because the level of compensation (assisted reproduction, bariatric surgery, etc.) is the guarantee of profit, and because of the fact that they are almost exclusive providers of such services. The services of private medical institutions are paid directly and do not require mediated payment by a health insurance company. This financial system frees private clinics from dependence on health insurance companies, and at the same time leaves them enough sufficient room for standard unregulated competition. Public hospitals have to ensure the provision of all other types of medical treatment.

Although the standards of services provided vary considerably in public institutions throughout the Czech Republic, health care establishments are generally not allowed to compete with each other. Reimbursements for specific treatment costs are determined by the Ministry of Health and is the same for everyone. Until now, Czech hospitals cannot charge any extra fees for their services because they are not even allowed to do it by law, which prohibits charging people with any extra money once the hospital is reimbursed from health insurance companies. In other words, hospitals always receive the same contribution, regardless of the quality of services provided.

Recently, the situation has been changing due to new reforms that have been leading to a greater concentration in this sector and making regional medical facilities shut down. This differs from the approach of private commercial health clinics, and also partly explains the fact why both types of medical entities cannot coexist successfully on the same market.

In the Czech Republic, health expenditure budget reached about 7.2-7.8 percent of total GDP expenditure between 2013 and 2018. Between the years 2007 and 2012, the public share of total health expenditures dropped in 24 out of 53 countries (Thomson et al., 2015). This is comparable to the European average, which is evident. With respect to the budgets of individual hospitals and other medical facilities, the present system of payments in the Czech health care system is unfavourable predominantly for private medical institutions in the sense that the contracts with health insurance companies are authorized retrospectively with one-year interval for the given year.

3. Systems of Prevention in Crisis Management

The basis is the concept of Crisis as a moment of conflict with a causative factor such as a terrorist, natural element, microorganism, disease. The crisis is an attribute of contemporary modern society, and thus the goal is to identify signals. Crisis preparedness means factual reducing the effects of the adverse impact of the crisis. It happens in two dimensions. Healthcare crisis preparedness = an internal matter of an isolated system that relates to the treatment of internal threats. The external view of crisis preparedness is “CCR — Corporate Crisis Resistance”. Health crisis preparedness = the ability of health care providers and facilities to provide the necessary health care. Care must be in accordance with medical procedures enshrined in medical legal procedures.

Emergency and crisis planning, and management legislation is based on the following standards:

- The legal regulation of the so-called crisis legislation is based on the Constitutional Act No. 110/1998 Coll., On the security of the Czech Republic.
- General international and national legislation, visions, strategies, doctrines, concepts, contracts.
- Crisis area - relevant laws and other legal regulations.
- Constitutional Act No. 110/1998 Coll. Constitutional Act on the Security of the Czech Republic.
- Act No. 240/2000 Coll. Act on Crisis Management and on the Amendment of Certain Laws (Crisis Act).

- Decree No. 328/2001 Coll. Decree of the Ministry of the Interior on certain details of the security of the integrated rescue system.
- Decree No. 380/2002 Coll. Decree of the Ministry of the Interior on the preparation and implementation of tasks for the protection of the population.

The framework task of health care is and will remain obvious in the future, i.e., to ensure the provision of health care to the population affected by the crisis event.

= takes place in the area defined by the Ministry of Health of the Czech Republic, further health service providers = basic reference level

= the readiness of the health system for crisis situations is crucial/it depends on the normal functioning, preventive measures, as well as the continuous readiness of the network of centres of emergency service and related hospital medical facilities providing medical life-saving for events affecting individuals including mass disasters (= so-called readiness within the integrated rescue system).

The role of health care in the health system and crisis management is following:

Departmental connection = to the state security system and functionality of the structure of the elements of crisis management with the elements of standard management — in practice connection to the systems of public health protection facilities, i.e., regional hygiene stations, regionally organized network of medical institutes and medical preventive care facilities/network of medical facilities, i.e., all outpatient and inpatient, emergency service centres of integrated emergency systems and other transport organisation.

4. Case Study of Prevention in Crisis Management in the Czech Health Care

Crisis management and its rules concerns also health care institutions. The main part of crisis management is planning in crisis situation and operating. An assumption is the goal setting and setting strategy in the market where it operates. One most important assumption during setting up a crisis plan is to accept operation, economic and legal rules. For medical institution is necessary to know range of medical services with own resources and from the other side provided care by suppliers. Furthermore there needs to be a specification of research and educational activities including allocation of relevant resources (Robert A. Vraciu, 1979, p. 128). To set up really a good budget one needs to work with financial information from recent past and also with health-care information from past minimum two years ago according to legacy.

In crisis situation we need to work with following terms. An emergency is the harmful effect of forces and phenomena caused by human activities, natural influences, as well as accidents that endanger life, health, property or the environment and require rescue and liquidation work. An extraordinary event is a sudden, partially or completely uncontrolled, time-limited and spatially limited event that occurred in connection with the operation of technical equipment, natural disasters, careless handling of hazardous substances or in connection with epidemics and other negative influences. A crisis situation is a situation where the lives and health of citizens, the environment, property values, public order or the economy are immediately threatened on a large scale, or a state of external threat to the state as a result of an armed conflict, terrorist action or other actions threatening the stability of the state. Nowadays we can see as typical crisis situation pandemic COVID-19 that is figured below.

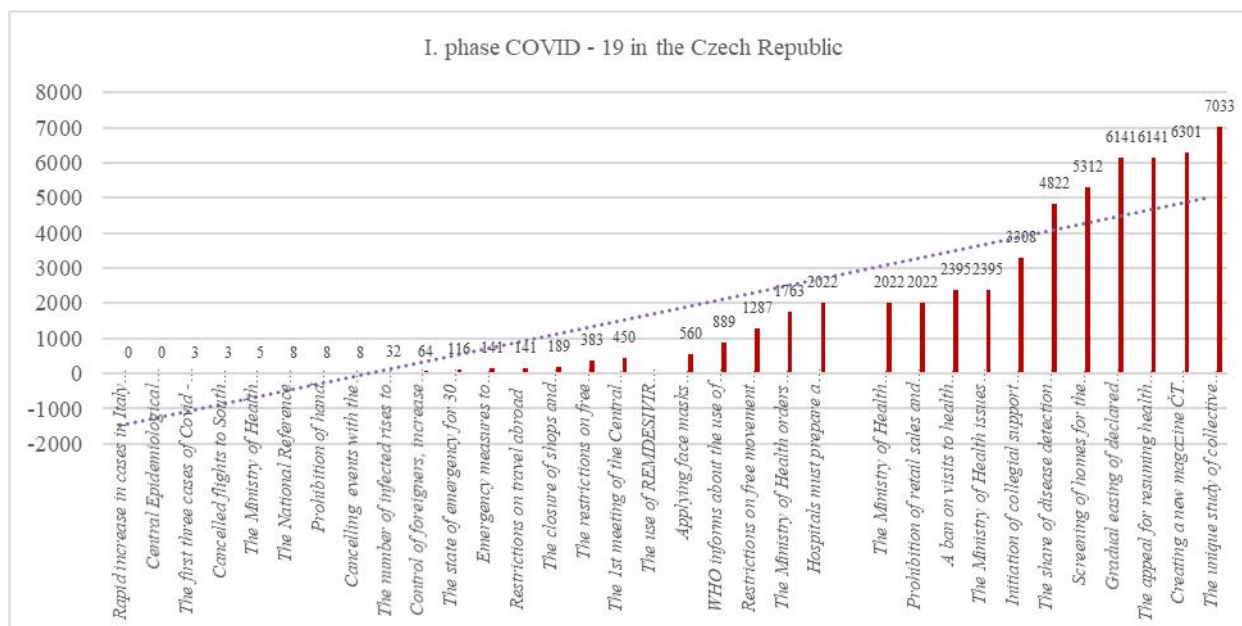


Figure 2 I. Phase COVID-19 in the Czech Republic

A crisis situation as COVID 19 is an emergency event in which a state of emergency is declared:

- **A crisis situation** is an emergency event in which a state of emergency is declared state of danger — declared by the regional governor (in Prague, the mayor) for the territory of the region or part of it for a period of no more than 30 days in the event of a serious and large-scale emergency that cannot be dealt with by commonly available forces and means and it is not possible to avert the threat from the normal activities of administrative offices and integrated rescue system units).
- **A state of emergency** — declared by the government of the Czech Republic for a maximum period of 30 days in the event of an emergency that significantly threatens lives, health or property values or internal security and order in the Czech Republic.

These are situations where the impending danger cannot be averted or the consequences caused cannot be eliminated by the normal activities of the administrative authorities and the components of the integrated rescue system and which increase the powers of the territorial administrative authorities and the government.

This article also deals with current issues of the Czech health care which are focused in crisis on its efficiency, in particular, on the key performance indicators — KPIs, Key Performance Indicators of Efficiency Management in the Czech Health Care. The perception of health management in the Czech Republic will certainly differ from the citizen's point of view, from the worker's point of view or from the point of view of the management, but the goal of all involved parties will be the quality and safe health care in an economically stable institution, especially in crisis situation in the Czech Republic. This article uses an example from the hospital to determine KPIs in managing performance. The case study using quantitative methods of measuring corporate performance is the main objective and shows that defining the right KPIs is a key issue for the management of Czech hospitals and provides a comprehensive view of the financial health of the Czech health care system. We cannot forget about the efficiency of the health care system in both lines, first is healthcare KPI's and the second is financial KPIs'.

Health care KPIs'

DRG (Diagnosis-related-group) is classification system that creates limited number of clinically and economically homogeneous groups of cases of acute hospitalization and this enables to compare the relative demand for sources in cases that are classified in these groups. Diagnosis-related group (DRG) is a system to classify hospital cases into one of approximately 500 groups, also referred to as DRGs, expected to have similar hospital resource use. They have been used in the United States since 1983.²

Financial KPIs'

Net working capital belongs to one of very often and traditionally used KPIs'. It is a measure of financial health. It relates to liquidity as the organization's ability to pay its financial obligations. Receivables turnover is measure that shows how long it takes to turn receivables into cash. Payable turnovers are indicator that shows how long it takes to pay off debts/short term/. To have financial balance in the hospital the payables turnover is to be a bit longer than receivables turnover. For health care institution is needs of liquidity analysis and assessment the short-term financial stability very strategic.

5. Conclusion

Crisis management is a term that is crucial for the functioning of contemporary society. In principle, it can be said that the crisis management as a set of socio-economic activities and legislation is linked to the development of human civilization and efficiency processes can be perceived historically in all its activities. This article concentrates on health care crisis management and a crisis and state of emergency connected with COVID 19. Health care in the Czech Republic is very specific sector that is related to many ethical issues, it is a complex concept involving all human activities. In the republic context, the most interesting was the year 1989, which implied a change in people's minds in terms of live and pressure on the implementation of especially efficiency in the Czech Republic. During 2020 we see the importance of crisis management and its systems o prevention connected with pandemic COVID 19. Also the trends in Czech health care have been changing for last years with the aim not only of effectiveness and profitability because in the past the Czech state and municipal hospitals were not really forced to be cost effective and to responsible for their results. The economic situation has been changed. For crisis and efficiency management in Czech Health Care we need to have valuable systems of legacy, systems of prevention in crisis management and measures, both health care KPIs' and financial KPIs'.

It can be seen from short case study how crisis management operate in the Czech Republic. I can recommend for crisis management improvements in health care sector in the Czech Republic following it is necessary significantly follow situation and to accept regulation immediately and with it to reduce costs as possibly. Another possibility is to use medical equipment more and more effectively. Crisis management need actual and good information system that helps systems of prevention, crisis and efficiency management better planning and more efficient use of sources. Another key thing is system of operation and control to reduce inefficiencies and to improve quality of provided services.

Good information system is indispensable in the Czech health care and it helps crisis and efficiency management. The system must be able to respond to generating information that helps better planning, operating and prevention. System of control, that is used in organizations contributes to reducing inefficiencies and improves quality of provided medical services and also efficient use and allocation of financial resources.

² Find a Code (2018), <https://www.findacode.com/drg/drg-diagnosis-related-group-codes.html>.

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