KPI Model Impact on Employee Motivation and Competitiveness of Private Healthcare Facilities

Abstract. The Constitution of Ukraine stipulates that an individual, his/her life, and health are the highest state social values. The authors highlighted that the health care system is the basis of social policy, national security, public health, and economic development. The current reformation of medical and legal reforms in Ukraine are fully covered by health legislation. In the context of these laws, the government promotes the development of private, communal, and state healthcare facilities. The authors noted that private medicine is snowballing in Ukraine, but the competitiveness of private health care facilities is insufficient in state medical reform. The study emphasized the absence of appropriate tools and mechanisms to motivate staff in private healthcare facilities. Based on the findings, the authors proposed introducing a set of evaluation indicators combined into a single integrated system – key performance indicators (KPIs), which would be the basis for calculating the bonus payroll. In turn, this system of material incentives should encourage medical staff to work effectively, be active, and initiative. The mechanism for developing a set of KPIs should be approved at the administration of the private health care facility. At the same time, medical workers of all levels must participate in KPIs elaborating. The indicators of medical care quality could be further used to improve healthcare, differentiated work assessment of medical staff, and healthcare facility in general, in accreditation and certification of private health care facilities. In the study, the authors formed and analyzed groups of indicators for different categories of the medical staff of private medical institutions. The obtained results showed that different bonus rates are needed to motivate employees at various levels to create an additional incentive to build a medical career. Thus, it could be argued that private healthcare facilities should develop motivation policy and strategy, revise system and forms of remuneration, improve the mechanism of motivation and incentives, focus on increasing competitiveness indicators in private medicine.

Keywords: key performance indicators (KPIs), competitiveness, medical staff, work motivation, private medicine.

Introduction. In Ukraine, private healthcare facilities face some urgent concerns in maintaining high competitiveness and motivating the medical staff for development. Nowadays, many medical graduates leave medicine and work in other fields that are often unrelated to their specialty. Moreover, many doctors with extensive medical experience retrain to earn more. In turn, the motivating factors of the professional
activities of medical staff allow reducing the acuteness of the staffing problems in the health care. Notably, motivation should be aimed to increase productivity and staff satisfaction.

Following the undermentioned above, it is especially relevant to find incentives to develop a mechanism of medical staff motivation based on the compliance of wages to the employee’s contribution. In the current business environment, the management of modern private healthcare facilities tries to create a staff motivation system that would contribute to achieving the goals of private healthcare facilities and ensure a high level of competitiveness of the organization in a dynamic medical service market.

**Literature Review.** This stage of studying the motivation of medical staff in the private healthcare facilities and the competitiveness of these institutions involved the detailed bibliometric analysis of publications indexed in the Scopus database.

Therefore, according to the Scopus database, the most cited papers on the investigated topic are as follows:

1. Impact of financial incentives on clinical autonomy and internal motivation in primary care: ethnographic study (140 citations) (McDonald et al., 2007). In this paper, the authors considered introducing a quality system and its impact on collecting healthcare quality data. The authors proposed new modes of personnel monitoring. The findings showed that sometimes the medical staff dissatisfaction was relatively high under intensive supervision. On the other hand, most employees had a positive reaction to holding high responsibility for achieving the collective goals of the medical facility.

2. Nurse burnout and patient safety outcomes: Nurse safety perception versus reporting behavior (130 citations) (Halbesleben et al., 2008). This article discusses the relationship between nursing staff burnout and patient safety. Based on the proposed stress and burnout model, the authors assumed that burnout would negatively affect both the perception of patient safety and the supposed probability of reporting adverse events. Following the results, the authors suggested using additional resources to motivate nurses concerning their busy work environment.

3. Does accreditation stimulate change? A study of the impact of the accreditation process on Canadian healthcare organizations (84 citations) (Pomey et al., 2010). The authors claimed that staff accreditation is one of the best ways to improve quality and safety in healthcare facilities. This study assessed how the accreditation process helps make organizational changes that enhance healthcare quality and safety. In the study, the authors stated that accreditation was a stimulating and motivating factor for employees. However, its effect decreases over time.

Besides, the Ukrainian scientists are fruitful in researching the medical staff motivation. Thus, Fetisova (2010) proposed implementing progressive bonuses for doctors and medical staff using step-up and step-down ratios of their activities. Moreover, she emphasized finding the root causes of employees' dissatisfaction with the pay system and determining the workforce reaction to the proposed measures before implementing motivational measures in any healthcare institution.

Stolyar (2020) compared the motivation systems of public and private healthcare. The researcher concluded that private healthcare facilities provided more material incentives for employees. As a result, in private healthcare, the medical staff shortage is lower than in the public sector.

Borsch (2019) proposed a modern paradigm of the medical personnel management system, which considers the modern tools of personnel management, the best international practices in developing health care, the realities, potential, and opportunities of the Ukrainian health care industry. Besides, this paradigm should be based on strategic management principles. It is worth mentioning that Borsch V. underlined the necessity to form the personnel policy and strategy in health care facilities. Moreover, it is necessary to revise the medical staff remuneration system and forms, improve the motivating and stimulating mechanism, and introduce the high-quality personnel formation and development mechanism.

In the study (Rovenskaya and Sarzhevska, 2019), the researchers highlighted the necessity of an effective mechanism for managing the staff of a private medical organization to form competitive advantages of healthcare facilities, search and develop perspective market niches. The authors proposed
to use moral, psychological, and material methods of work motivation to further improve the system of personnel management in health care facilities. In turn, it would allow changing the common principle of material interest («work more - get more») and approach the principle of material dependence («how much one earned – so much one received»).

The paper (Bogdan et al., 2019) addressed human resources in the Ukrainian health care system. The researchers highlighted several practices regarding the incentives and motivators system in private health care facilities, such as incentives based on KPI and incentives for additional competencies. Besides, indirect financial incentives include incentives for initiative and leadership. The authors noted that private health facilities are more experienced in implementing KPIs, particularly measuring operational, administrative efficiency, and financial prospects. The list of KPIs used in private healthcare facilities in Ukraine is summarized based on interviews with experts in the areas as follows: financial and administrative efficiency, patient feedback, training, and improvement.

On the other hand, Bilyk et al. (2018) described implementing the KPI system in detail, which should begin with the organization's strategy and provide feedback from each employee. The employee incentive program for key performance indicators has significant advantages over other systems of material incentives such as 1) a focus on the result; 2) manageability – the system allows adjusting the targeted efforts of employees without significant changes to the system; 3) clarity – the employee understands what results expected by the company and how much it pays for them, while the company has a clear vision on how much particular result cost; 4) constancy – any employee builds his work following the incentive system.

For providing a deep theoretical analysis on work motivation in healthcare facilities, this study involved the analysis of publications indexed in the Scopus database by the keywords «healthcare», «motivation», and «staff». The total study sample consisted of 790 publications. For visualizing the general concept, the VOSviewer software tool was used. Consequently, Fig.1 demonstrates 47 items combined into 4 clusters. The links between these dimensions reflect the dependence of the medical staff motivation on job satisfaction, education, skills, and training system (Fig. 2).

Figure 1. The network visualization of conceptual apparatus of the investigated articles by the keywords «healthcare», «motivation» and «staff»

Sources: developed by the authors using VOSviewer software tools based on the Scopus data (2021).
Methodology and research methods. The healthcare facilities’ efficiency and competitiveness, the structural units could be evaluated based on a set of criteria and indicators. It stands to mention that each of these criteria characterizes different aspects of medical activity.

Table 1. The main criteria for calculating the efficiency and competitiveness of private healthcare facilities

<table>
<thead>
<tr>
<th>By efficiency type</th>
<th>medical, social, economic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>By levels</td>
<td>doctors, junior medical staff, separate departments, healthcare center.</td>
</tr>
<tr>
<td>By the result measurement method</td>
<td>resource conservation, additional income and other integrated indicators.</td>
</tr>
<tr>
<td>By working stages</td>
<td>preventive measures, treatment, rehabilitation.</td>
</tr>
<tr>
<td>By the amount of performed work</td>
<td>the efficiency of specific treatment and prevention measures or medical and social programs.</td>
</tr>
<tr>
<td>By expenses</td>
<td>cost-based, low-cost, cost-free.</td>
</tr>
<tr>
<td>By standardized form of statistical indicators</td>
<td>public health indicators, labor cost indicators, cost indicators.</td>
</tr>
</tbody>
</table>

Sources: developed by the authors based on (Rusanov, 2020).
The healthcare facilities' effectiveness couldn't be uniquely identified. Typically, there are three types of efficiency: medical, economic, social. Notably, the researcher I. Kulyk (2008) described in detail each type mentioned above.

Therefore, medical efficiency is the degree of achievement of medical results. For a particular patient, it is the recovery or improvement of health, restoring lost functions of individual organs and systems. At the health care facilities level or the industry as a whole, medical efficiency is measured by many specific indicators such as the proportion of treated patients, reducing the incidence of chronic disease, and reducing the population's incidence. Medical efficiency reflects the degree of meeting the established diagnosis and diseases treatment, considering quality, adequacy, and effectiveness. Notably, this type of indicator directly affects the competitiveness of private healthcare facilities, especially in terms of the number of patients treated and their ratio. This indicator's stability and gradual growth indicate the healthcare facility's competitiveness and position in the regional medical services market.

Social efficiency is the degree of achieving the social result. In the matter of particular patient, it is his return to work and active social life, satisfaction with medical care. On the other hand, at the industry level, social efficiency is a rise in population life expectancy, decrease in mortality and disability rates, and social satisfaction with the system of medical care. Notably, the private healthcare facility competitiveness indicator is indirectly affected by social efficiency because the social component of a particular private medical institution could be complex or immeasurable. The level of medical care satisfaction could be measured by the number of positive and negative patients' responses to visitors (Kulyk, 2008).

The economic efficiency of private healthcare facilities is the ratio of income and expenses. The economic efficiency calculation is related to searching for the most economical use of available material, money, and human resources.

This indicator is a necessary component in evaluating the private healthcare facility functioning as a whole, its units, and structures and the economic justification of health care measures in a particular region (Kulyk, 2008).

The economic efficiency of a private healthcare facility forms a group of critical competitiveness indicators, which are calculated from the financial statements of the healthcare facility. This indicator reflects the primary competitiveness trend and has the highest weight among all proposed (Kotenko et al., 2018).

It is proved that there is a clear relationship between the team performance and the remuneration of its members. The use of key performance indicators helps motivate employees to perform their duties and achieve specific results (Kobushko et al., 2020).

Therefore, studying quantitative and qualitative indicators is necessary to build a system for evaluating staff motivation efficiency. It stands to mention that quantitative indicators include the payroll, the total cost for staff, development, and comfort. Besides, quantitative indicators include analytical, accounting, the regulatory performance indicators.

On the other hand, the qualitative indicators include job satisfaction, awareness of the healthcare facility, and the ability to make independent decisions. Generally, it is calculated with the help of sociological research.

The authors conducted a study and concluded that the modern medical business is a widely used model P4P (pay-for-performance). The fee for the result is to subtract qualitative and quantitative indicators of each health worker the amount of his salary.

According to the P4P (pay-for-performance) model, several pay models are provided in private healthcare facilities (Table 2).
Table 2. The models of labor remuneration in the private healthcare facilities

<table>
<thead>
<tr>
<th>№</th>
<th>Model Name</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Model «100-% salary»</td>
<td>easy to administer; no staff stimulation for productive work</td>
<td>The medical workers’ salary is determined and approved insuitable for new staff development and advance.</td>
</tr>
<tr>
<td>2</td>
<td>Model «Salary plus bonuses»</td>
<td>effective staff in some cases, the payroll</td>
<td>Assigning a basic salary to the employee, which could be supplemented with additional performance bonuses; feedback, the ability to considering personal performance and effectiveness. This identify and eliminate model encourages staff to perform their duties to receive «bottlenecks» in the additional premiums. In turn, the part of the premiums could be linked to different indicators, such as KPIs.</td>
</tr>
<tr>
<td>3</td>
<td>The model of equal shares</td>
<td>organization; the personal responsibility formation for the result.</td>
<td>Equal distribution of the profits among medical workers.</td>
</tr>
<tr>
<td>4</td>
<td>Performance model.</td>
<td>motivation to work routine work is ignored</td>
<td>This model links the amount of a workers’ salary to the harder and more valuable work because of lower payment; the payroll. At the same time, money is deducted from the inflows, which are used to cover the costs for maintaining the healthcare facility.</td>
</tr>
</tbody>
</table>

Sources: developed by the authors based on (Klochkov, 2010; Kulagin, 2011; Rusanov, 2020).

**Results.** High competitiveness and efficiency are a prerequisite for the successful operation of private healthcare facilities. Staff performance and, consequently, the premium payment (variable) is determined based on targeted management using Balanced Score Card (BSC) and Key Performance Indicators (KPIs).

In turn, target settings for private healthcare facilities are formed based on the analyzed methods and models of remuneration. In evaluating proposed remuneration models, model №2, «Salary plus bonuses», was chosen. Within this model, KPI's perform the following functions:

1. Orientating staff motivation at the result for achieving the targets according to the decisions made.
2. Evaluating the work of each medical worker in the healthcare facility.
3. Increasing the responsibility of each health worker for the particular field of activity.
4. Providing opportunities to develop and improve the most promising areas of business in the healthcare facility.
5. Providing the healthcare facility's management with data for the analysis of possible bottlenecks.
6. Exploring the influence of a particular process on the final performance efficiency of the private healthcare facility.
7. Reflecting the tendency of indicators of medical staff performance for their further use in calculating a multiplicative indicator of the private healthcare facility competitiveness.
8. Careful justification of each management decision of a private healthcare facility.

It stands to note that developing KPI's system for the private healthcare facility (Fig. 3) needs consideration of the requirements for each indicator as follows:

- each indicator must correspond to the targets of the particular private healthcare facility;
S., Kotenko, Ia., Kobushko, I., Heiets, O., Rusanov. KPI Model Impact on Employee Motivation and Competitiveness of Private Healthcare Facilities

- health professionals must measure each indicator;
- approved indicators and their standards must be achievable;
- the goal must be realistic and stimulating;
- each indicator should be under the responsibility of the particular accountable person;
- indicators should contribute to the medical staff motivation and performance growth;
- indicators should be easy to compare in dynamics (the same indicators should be comparable);
- the indicator change dynamics should be presented visually (in graphical form);
- each indicator should carry a certain content and be the basis for competitiveness analysis (Kotenko et al., 2018).

Responsibility for the formating KPIs model and calculating the premium payments in the private healthcare facility should be distributed as follows:
1. The first level:
   - the employee develops KPIs;
   - submits proposals to the chief doctor (director);
   - evaluates own indicators;
   - presents the estimated indicators to the chief doctor (director).
2. The second level:
   - the chief doctor (director) analyzes the date and month of KPIs proposals submission;
   - controls the compliance of indicators to the strategic goals of the department;
   - controls the compliance and accuracy of indicators;
   - provides the head of the department with evaluated and agreed on KPIs for his subordinates;
   - puts indicators in the head's report.
3. The third level:
   - the head of the department controls the correctness of indicators and their evaluation.
4. The fourth level:
   - a bookkeeper calculates the variable part of the salary.

To bring the KPIs model to employees of the private healthcare facility should be taken in the following stages:
1. At the end of the probationary period and the adaptation procedure, the supervisor or mentor conducts KPIs training for the subordinate.
2. If the indicators and their calculations meet the generally accepted requirements for the KPIs development and initiate positive changes in the worker’s performance, the chief doctor approves these indicators.
3. Entering the calculated indicators to the reporting program and providing feedback on the KPIs to direct subordinates.
4. The subordinate submits proposals to include new indicators for the next month and calculations for the previous month.
5. The subordinate revises indicators and their calculation within the specified period.
6. The department head agrees, approves, and submits proposals on KPIs to calculate premium payments.
Figure 3. Algorithm of KPIs model formation, defining the KPIs regulation value, and calculating premium payments for medical staff

For each KPI of the health worker, the following is determined:
- the frequency of evaluation; normative values; the weight percentage of each indicator; the variable part percentage to the permanent part (salary/tariff rate) of the payroll fund and the whole payroll fund
- the frequency of evaluation; normative values; the weight percentage of each indicator; the variable part percentage to the permanent part (salary/tariff rate) of the payroll fund and the whole payroll fund

If KPIs couldn’t be measured for each medical worker, KPIs are calculated for the entire department, and then the senior manager rationally distributes it to the subordinates.

This study involved the experience of successful private healthcare facilities using the KPIs system to develop an original incentive system for employees of the private healthcare facilities. The authors formed a working group, which included the administration of the existing facility (the name is secretive), heads of departments, senior nurses of departments, employees of the economic department.

In turn, the working group should perform the following tasks:
- develop a shared language - agree on a common terminology;
- approve the list of departments and employees where the KPIs system would be implemented;
- form goals for structural departments and employees in all areas of activity;
- develop action plans and ways to achieve KPIs.

The working group developed corporate goals and KPIs of the healthcare facility. Besides, the responsibilities of separate structural departments and employees were distributed by different business processes and functions of a healthcare facility. Then, KPIs were defined for departments and individual employees. Consequently, the value of KPIs for particular periods by individual employees was determined. A system for monitoring the work of structural departments and the incentive system based on KPIs was developed. Training for employees was conducted according to the new system of KPIs. Under consideration of all the shortcomings and «bottlenecks» of a private healthcare facility, evaluation criteria were developed. It was determined the percentage of each evaluation criterion and the minimum threshold percentage when the motivational indicator was used. Then, the evaluation frequency was defined. All these criteria were summarized using an Excel spreadsheet.
For demonstrating the proposed system at work, the study gave an example of the criteria evaluation for the head of the healthcare facility and middle medical personnel.

KPIs criteria developed for the chief doctor are as follows:
- timeliness of planned activities (tasks) implementation;
- the percentage of performance indicators of staff satisfaction;
- implementing the plan for specialized medical aid delivery;
- timeliness of filling vacancies, fulfillment percentage of the standard based on the results of the probationary period (dismissal, attestation assessment), fulfillment percentage of the employee development plan;
- evaluating the patient satisfaction questionnaire;
- implementing marketing promotion plan of the healthcare facility;
- the number of errors during the implementation of standard procedures (Rusanov, 2020).

Table 3. Example of evaluating the criteria with further calculating the premium fund for the chief doctor (with post salary 15000 UAH, the share of payroll pay in KPI relative to the post salary – 25%)

<table>
<thead>
<tr>
<th>№</th>
<th>KPI</th>
<th>Assessment frequency</th>
<th>% weight in variable</th>
<th>Value at Min</th>
<th>Dependency</th>
<th>Min KPI</th>
<th>Average KPI</th>
<th>Salary at average KPI</th>
<th>Max KPI</th>
<th>Salary at Max KPI</th>
<th>KPI real value</th>
<th>Accured % by KPI</th>
<th>Payroll accounting by KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Implementation of the action plan</td>
<td>κ</td>
<td>15%</td>
<td>1 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>75%</td>
<td>75.0%</td>
<td>1265.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Staff satisfaction</td>
<td>π</td>
<td>20%</td>
<td>1 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100% 100% 100% 100%</td>
<td>4500.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Assistance plan</td>
<td>κ</td>
<td>20%</td>
<td>1 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100% 90% 90% 90% 90%</td>
<td>2025.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Staff evaluation</td>
<td>κ</td>
<td>10%</td>
<td>1 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100% 45% 45% 45% 45%</td>
<td>506.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Patient satisfaction</td>
<td>κ</td>
<td>5%</td>
<td>1 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100% 85% 85% 85% 85%</td>
<td>478.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Marketing plan</td>
<td>γ</td>
<td>5%</td>
<td>1 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100% 100% 100% 100%</td>
<td>2250.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Errors in procedures</td>
<td>κ</td>
<td>15%</td>
<td>1 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100% 90% 90% 90% 90%</td>
<td>1518.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Manager’s fund</td>
<td>κ</td>
<td>10%</td>
<td>4 0% 0% 50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100% 80% 80% 80% 80%</td>
<td>900.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>100%</td>
<td>1</td>
<td>100%</td>
<td>Wages according to KPI</td>
<td>1344.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: developed by the authors.

Table 3 shows that this system of indicators would allow the chief doctor to earn 80% more than the post salary, considering the quality of work on all criteria KPIs. In turn, the system of indicators of middle medical personnel and their possible premium fund was analyzed by introducing the proposed model of staff motivation.

Thus, KPIs criteria developed for the middle medical personnel are as follows:
- timeliness of planned activities (tasks) implementation;
- fulfillment of medical prescription;
- compliance with hospital hygiene and infection control;
- development plan execution (advanced training courses, participating in training, conferences, master classes, etc.)
- evaluating the patient satisfaction questionnaire;
- the quality of documentation maintenance, the work quality of the expendable materials and medicines accounting, timeliness of their order;
Table 4. Example of evaluating the criteria with further calculating the premium fund for the chief doctor (with post salary 6000 UAH, the share of payroll pay in KPI relative to the post salary – 15%)

<table>
<thead>
<tr>
<th>№</th>
<th>KPI</th>
<th>Assessment factor</th>
<th>variable frequency</th>
<th>Dependence type</th>
<th>Min KPI</th>
<th>Salary at Min KPI</th>
<th>Average KPI</th>
<th>Salary at average KPI</th>
<th>Max KPI</th>
<th>Salary at Max KPI</th>
<th>KPI – real value</th>
<th>Accured % by KPI</th>
<th>Payroll accounting by KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Implementation of the action plan</td>
<td>κ</td>
<td>15%</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
<td>50,0%</td>
<td>202,5</td>
</tr>
<tr>
<td>2</td>
<td>Fulfillment of medical prescription</td>
<td>n</td>
<td>20%</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>60%</td>
<td>60,0%</td>
<td>648,0</td>
</tr>
<tr>
<td>3</td>
<td>Compliance with hospital hygiene and infection control</td>
<td>κ</td>
<td>20%</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>70%</td>
<td>70,0%</td>
<td>378,0</td>
</tr>
<tr>
<td>4</td>
<td>Development plan execution</td>
<td>κ</td>
<td>10%</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>80%</td>
<td>80,0%</td>
<td>216,0</td>
</tr>
<tr>
<td>5</td>
<td>Patient satisfaction</td>
<td>κ</td>
<td>5%</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>90%</td>
<td>90,0%</td>
<td>121,5</td>
</tr>
<tr>
<td>6</td>
<td>Additional quality</td>
<td>r</td>
<td>5%</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100,0%</td>
<td>540,0</td>
</tr>
<tr>
<td>7</td>
<td>Errors in procedures</td>
<td>κ</td>
<td>15%</td>
<td>1</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>90%</td>
<td>90,0%</td>
<td>384,5</td>
</tr>
<tr>
<td>8</td>
<td>Manager’s fund</td>
<td>κ</td>
<td>10%</td>
<td>4</td>
<td>0%</td>
<td>0%</td>
<td>50%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>80%</td>
<td>80,0%</td>
<td>216,0</td>
</tr>
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Sources: developed by the authors.

Table 4 shows that at an average KPI of 75%, the salaries of middle medical workers could increase by 45%. Thus, it is a good motivation for quality work and increasing the competitiveness of the healthcare facility in the market of private health services.

It stands to note that implementing the incentive system for medical staff based on KPIs in private healthcare facilities provides the following advantages:

− management to be up to speed on current affairs of the healthcare facility and evaluate their effectiveness;
− receive information about «bottlenecks» duly and prevent critical situations;
− BSC methodology improves the interaction between employees and departments at all organizational levels;
− BSC system constantly provides quality feedback;
− BSC system allows reviewing the usual approaches to information processing to simplify its analysis;
− employees understand the tasks, while the dependence of the salary growth on quality work motivates staff.
− encouraging employees to perform mutually agreed goals - the clinic as a whole, the structural unit, and the employee.
− real financial incentives of medical staff increase staff loyalty to the healthcare facility and work quality while decreasing the number of significant errors in the work.

Besides, there are several disadvantages as follows:

− the transition period takes from one to three months;
− the initial work period on the KPIs system causes staff resistance;
possible payroll overload due to underestimating KPIs or «hyper motivation» of health workers.

It is worth highlighting that the KPIs introducing may provoke the resistance of medical staff. Therefore, to overcome it, the following recommendations should be undertaken:

− The manager should explain to the employees that the KPIs relate to their previously performed responsibilities. Besides, the methodology should be expounded to all users while providing the opportunity to receive feedback in test mode.

− The development of KPIs should involve the common efforts of managers and middle medical workers to create a sequential design plan of project implementation.

− Particular attention should be paid to those health workers who seek positive healthcare facility changes while actively encouraging medical staff activity to implement these changes.

− In the introduction stage of the new remuneration system, temporarily keep the old one.

Notably, implementing the proposed incentive and remuneration systems could positively affect the competitiveness of private healthcare facilities in the next reporting period (quarter, half-year, year). The predicted improvement in the service quality, conflict reduction, and staff satisfaction growth would contribute to the healthcare facility profitability by revenue increase from the main activity.

Conclusions. The medical staff is the leading resource of private health care facilities. However, there is an urgent issue in retention, motivation, and stimulation of medical personnel development in Ukraine. Therefore, the management of private healthcare facilities creates the staff incentive system to achieve the organization's goals and provide fair labor remuneration for medical personnel.

This study proposed a set of indicators (the key performance indicators of KPIs), combined into a single integrated system, to evaluate each employee's performance efficiency in the private healthcare facilities. This system has obvious advantages and disadvantages described in the related studies by foreign and Ukrainian scientists, who support the idea of the importance of material motivation of healthcare workers.

It is worth emphasizing that employee motivation growth increases the profitability of healthcare facilities. The proposed incentive and remuneration system would increase the competitive advantages of a private healthcare facility. Besides, it would facilitate the development of the private medical industry in Ukraine.


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References


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