Management accounting in the implementation of management control in healthcare organizations

Wioletta Baran *

Introduction

In accordance with the Public Finance Act, health-care providers in Poland other than entrepreneurs should implement management control specified in Management Control Standards (Principles) for the Public Sector. These are not the first regulations concerning management control in public finance units as over the years, control terms have been present in the structures of public finance units. These terms have referred to the frameworks of internal auditing, financial control and management control since 2010. Management Control Standards replaced Financial Control Standards. According to Winiarska (2012, pp. 36–38) the following was mentioned as justification: to ensure that the unit fulfil its goals it is recommended that the unit implement management control, which is more efficient than carrying out inspections.

The aim of this article is to identify the management accounting tools which are used in order to fulfil the recommendations formulated in the management control standards for healthcare organizations. These recommendations are essential for fulfilling the assumptions of management control for these kinds of units.

To achieve these aims, a literature research has been conducted. Additionally, quantitative research via questionnaires forms (December 2012) and qualitative research also via interview forms (January–February 2013) was carried out in selected units. The survey form of eight questions was e-mailed to 80 healthcare organizations chosen via the Healthcare Organizations website (Portal Zakładów Opieki Zdrowotnej at www.rejestrzoz.gov.pl/RZOZ/). The following criteria were included: the sort of the unit, treatment procedure/method and place. According to these criteria public organizations situated in one provincial capital were taken into account. In response, 41 completed forms were received. 15 of them were eliminated due to the answer to the first filter question. These units did not declare to have implemented management control standards. As a result 26 survey forms were used to analyse the aspect of management accounting tools. Six healthcare organisations agreed to be interviewed.

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The first part of the article represents the theoretical and legal conditions essential for management control to operate in healthcare organizations. A similar assessment was done in the field of management accounting systems. The results of the qualitative and quantitative research are presented in the second part of the article. In the last part of article the author attempts to design a system for management control to operate in and which takes into consideration the type of the healthcare organization.

1. Management control under the regulations of the *Public Finance Act* and in the view of management accounting

For this study, management control is examined from the point of view of the public finance unit in Poland, namely health-care providers other than entrepreneur. In accordance with the *Public Finance Act*, the unit’s manager is obliged to ensure that the unit operates in an appropriate, effective and efficient way. The Minister of Public Finance has released detailed Management Control Standards (Principles). This Code acts on the assumption that it conforms to *Guidelines for Internal Control Standards for Public Sector* issued by the ISSAI. The report concerning information about unit’s management control condition should be published in the form of a statement in the Public Information Bulletin (*Ustawa o finansach publicznych*, 2009; *Rozporządzenie*, 2010).

In the field of management accounting, the responsibility accounting system is often thought to be identical to the management control system. However, in the literature concerning management control, the responsibility accounting system is described as an environment that management control operates in. Exercising management control is the duty of all managers of responsibility centers (Young, 2008, pp. 220, 233–234; Świderska, 2010, p. 389). In practice, management control becomes more or less formalized depending on the needs of the board. Its structure and presence are defined by managers’ needs as happens in the case of management accounting. A lack of management control results from ignorance and unawareness of the importance of managerial information in the field of running a business activity.

The definition of management control for its application in a health-care organization is included in the *Public Finance Act*. Elements of this definition correspond to the terms available in the management accounting literature (table 1). The interpretation of management control in the *Public Finance Act* – made due to changes in the public finance system – relates to responsibility issues and places itself in the concept of responsibility accounting. Therefore, the definitions presented in table 1 fall within the scope of economic issues e.g. management. Running a business activity in conditions of limited resources, and the obligation of their rational use, requires making the most beneficial choices regarding goals, resources and methods leading to their achievement (Milewski, 2000, pp. 17, 35).
Table 1. Selected management control definitions

<table>
<thead>
<tr>
<th>Detailed list</th>
<th>Management control definition</th>
</tr>
</thead>
</table>
| Management control in the *Public Finance Act* and its interpretations | – All activities undertaken to ensure accomplishment of goals and tasks in accordance with the law in an effective, economical and prompt way (article 68, section 1).
   – Category describing the management process itself which concerns the elements of control, power and responsibility in public finance units. It also regulates how a manager deals with the role of regulator and handles managerial tasks. |
| Control in management accounting | – The process which ensures that the resources are acquired and used in an efficient, effective way in order to accomplish the organization’s goals.
   – Ways of storing and using information in order to support and coordinate the process of decision making, planning and control of the whole organization and managing human resources.
   – The broad definition which includes traditional practices of management accounting e.g. budgeting and new performance management techniques |


At first, management control was perceived as a mechanical system but this perception has evolved. Nowadays it includes taking into consideration psychosocial factors when designing and implementing the management control system. These factors seem to be key variables when it comes to organization control and are geared towards human behavior. Nowadays, the process of management control is regulated by economics and social psychology principles, and benefits from management accounting and risk management tools (Carenys, 2010, p. 37; Young, 2008, p. 233).

Management control functioning requires the structure of management control standards dedicated to public finance units concerning health care providers other than entrepreneurs. The management control described in accounting theory uses responsibility accounting system determinants. It is also defined as a formalized planning and control process which is constructed and based on a strategic unit’s assumptions. The conditions of functioning and elements of management control have been put together in table 2.

Management control standards for the public finance sector are divided into five groups which correspond to elements of management control. Setting goals and tasks as well as a system whose role is to monitor this element are the two most important

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1 As it results from the management accounting development phase’s overview, the role of this sort of accounting has been invariably focused on providing information essential for planning and control which should be useful when it comes to fulfilling the strategic assumptions of the unit (Szychta, 2008, pp. 23–82).
elements of management control. This recommendation fits in the completion of basic management functions. Additionally, it is the core, basic structure for fulfilling the information function of management accounting. This sort of accounting is used to set up the strategy, planning and measuring for needs of control and optimization of resources (Lucey, 1992, p. 1).

Table 2. The elements of management control and the conditions of its operation

<table>
<thead>
<tr>
<th>Management control according to management control standards</th>
<th>Management control within responsibility accounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defining internal environment, organizational structure and delegating powers</td>
<td>Decentralization, delegating powers and responsibility</td>
</tr>
<tr>
<td>Setting up the units goals and risk management principles</td>
<td>Planning in order to fulfill the organization’s strategy and considering changes towards plan revision</td>
</tr>
<tr>
<td>Implementing flexible and efficient control mechanisms</td>
<td>Budgeting and budget changes resulting from budget revisions and assessment of ongoing activities according to set performance measurements</td>
</tr>
<tr>
<td>Ensuring access to information and creating the communication system</td>
<td>Reporting in accordance with the needs of managers of responsibility centers and the board</td>
</tr>
<tr>
<td>Current monitoring and assessment</td>
<td>Taking current actions in order to correct variances from operating activities, their measurement assessment, plans, budgets and even the strategy</td>
</tr>
</tbody>
</table>


Management control in public finance units consists of the following elements (see table 2): the internal environment, goals and risk management, control mechanisms, information, communication, performance measurement and assessment. Management control described in management accounting theory operates on similar conditions. These circumstances are presented in comparison to management control standards for public finance units.

According to management control standards, it is known that the appropriate internal environment influences management control quality in a fundamental way. The internal environment includes recommendations concerning professional qualifications, the organizational structure, delegating powers and behaving ethically.

Managers and other employees are required to be aware of the unit’s ethical code and follow those rules while carrying out their duties. Accounting employees who support management operations are obliged to obey ethical regulations. Ethical behavior patterns contained in the Professional Accountants Ethics Code concern both working as an accountant and interactions with other employees, units and institutions (Uchwała, 2007, pp. 13–15). Management accounting theory does not, however, directly concern ethical behavioral patterns of employees who take part in preparing

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2 Taking into consideration the way public finance sector units are organized and operate within a hierarchical structure, their goals and tasks are set at each level of the civil service and local government as well as within those units themselves (Standardy kontroli, 2009).
information crucial to making decisions but it is pointed out that creating an efficient accounting information system requires the involvement and direct participation of qualified and honest staff. Additional attributes which ensure efficiency and productivity of accounting information systems are indicated further.

The next essential element of the internal environment of management control is professional qualifications. Management control standards indicate that the management staff and employees possess such knowledge, experience and skills which will allow them to carry out their duties in an efficient and effective way. In the field of accounting, Professional Accountants Ethics Code principles concerning professional qualifications and high quality performance are in effect. They include the following issues: organizational efficiency, promptness, professionalism and meeting information needs. In an accounting conceptual framework, IFAC points out the importance of skills required to perform accounting duties. The skills framework reflects competences revealed in obtained performance, constant self-improvement and critical awareness regarding whether the accounting system operates efficiently in a constantly changing environment. Activities and requirements, like in management control standards, refer to accounting functions e.g. to the effective and efficient use of resources (Uchwała, 2007; Jaruga et al., 2001, pp. 72–76).

The internal environment of management control defines its operation in an organizational structure adapted to the current aims and tasks of the unit. As a part of this structure there should be a formal document which regulates a clear and coherent scope of the tasks, powers and responsibilities of employees. Delegating powers to managers and employees is an additional element of management control. It should be appropriate to the significance of the decisions taken and the level of their complexity and risk associated with them. Decentralization is essential if management control and responsibility accounting system are to operate. It means that delegating decision powers to lower levels of management should be at the same level followed by delegating responsibility, which are associated with them. This practice can be applied in single units as well as to the whole system they operate in (Standardy kontroli, 2009, p. 4; Świderska, 2010, p. 391; Nowak, 2003, pp. 268–269; Bulloch, 1964, pp. 25–31; Awio, Nortcott, 2001, pp. 75–88; Drury, 2013, pp. 266–267). Unlike management control standards for public finance units in accounting theory, there is no requirement to formalize management control activities. However, in practice, internal documents occur e.g. in the form of budget instructions.

Management Accounting is qualified as a part of the information accounting system. Its efficiency has been defined by Horngren et al. (2005, p. 281), they indicate that there is a necessity for personnel to engage completely and in fair way. Ability to control, compatibility, flexibility and cost effectiveness are the features which enable this process.

Management control in market-oriented units is a voluntary decision of its Board, in contrast to management control in public finance sector units (Carenys, 2010, p. 41).
The next element of management control in standards is defined as goals and risk management. In this field it is indicated that a clear mission statement may support setting the hierarchy of aims, tasks and effective risk management. Risk management is designed to increase the probability of achieving goals and completing tasks. The process of risk management itself should be substantiated. In management accounting theory, the essence of management control consists of the current operation’s control based on the expected results after the goals (stated within its mission) have been completed (Carenys, 2010, p. 41). Measurement techniques for the assessment of the fulfillment of goals and tasks are used in standard recommendations, management accounting as well as in management control operating in responsibility accounting systems. As far as risk is concerned, its identification takes places more frequently than once a year, contrary to what is stated in the standard recommendations. Risk identification, analysis and reaction are not directly described in the management control process, however it is contained in every level of management control. The phase of planning, budgeting, performance measurement and reporting can be brought under review. The reactions to review results are of great importance as they can be fundamental for verifying the institution’s planning, budgeting and operational activities as well as strategy.

**Figure 1. The Management Control Process**

![Management Control Process Diagram]


In every phase of management control, various risk factors are taken into consideration. Designing a set of several possible options is an example where this kind of behavior is displayed. It concerns the plan itself as well as several budget versions: optimistic, pessimistic and the most presumed. Moreover, using models is recom-
mended in order to identify risk. These models should be applied in risk management methods and in strategic management accounting. Several models can be useful e.g. the value chain model to analyze the strategic potential of the institution, Porter’s five forces model relating to the competition, PEST analysis used to investigate the macro-environment of the institution including the areas which can have a crucial influence on its functioning and, last but not least, SWOT analysis used to assess the internal and external organization environment (Nowak, 2010, p. 238; Jaruga et al., 2001, pp. 595–596). It is recommended that all these tools be used in the preliminary step of formulating the unit’s strategy. In the process of management control it eases current risk analysis and reaction to variances from accepted assumptions.

The next element of management control concerns control mechanisms and is described in public finance sector standards. It is often pointed out that the management control system should be flexible and adapted to the institution’s needs. Control mechanisms should respond to a specific sort of risk. Implementation and application costs should not be higher than the gained benefits (Standardy kontroli, 2009). These assumptions should respond to goals and information structure in management accounting determined basically by managers’ needs and features of an effective information accounting system as described in table 3 (Nash, 1984, p. 6; Noreen, 2002, p. 26; Stoner, Wankel, 1992, p. 479).

**Table 3. Features of effective information accounting system**

<table>
<thead>
<tr>
<th>Features of the system</th>
<th>Description of system features</th>
</tr>
</thead>
</table>
| Ability to exercise control | – enables control over the institution’s resources  
– ensures effective allocation of resources  
– delivers information in the field of resource management |
| Compatibility | – responds to the needs of people using specific system functions  
– enables many users to operate simultaneously  
– ensures efficient performance of routine and non-routine activities  
– responds to the organizational structure of the institution |
| Flexibility | – enables adaptation to changes in the organization and environment resulting from growing complexity of economic processes or technological growth |
| Cost effectiveness | – reflects the advantage of benefits which can be achieved from using the system over maintenance costs i.e. assurance that its control, compatibility and flexibility functions operate accurately,  
– benefits equated with good information are significantly higher than costs |


Furthermore, the management control standards highlight the duty to provide documentation for a management control system. This documentation should be consistent and available to all who need it. In the field of control mechanisms, it is emphasized that it is necessary to supervise currently ongoing operations in order to complete them in an efficient, effective and successful way. This ensures the going
concern assumption. Using risk analysis results might also be very helpful. This section of management control standards stresses also the protection of resources by entrusting them to managers and employees in order for them to be used appropriately (Standardy kontroli, 2009, p. 5). The mentioned activities (e.g. question of supervision, risk analysis and resource protection) create the essence of responsibility accounting and are planned in the phase of delegating powers and responsibility in the institution.

Information and communication were separately described as elements of management control in management control standards for the public finance sector. It was pointed out that access to current, understandable and well-prepared information is crucial for managers and other employees to perform their duties and tasks. An effective communication system should enable the flow and transfer of information both vertically and horizontally, and ensure that recipients understand it correctly. Effective communication system should assure internal and external flow of information which may influence the achievement of goals and task performance (Standardy kontroli, 2009, p. 5).

In the responsibility accounting system, management control combines different tools and control mechanisms. Moreover, the information (especially communication) fulfills its functions. According to IFAC, the management accounting frameworks connected with utilities show the implementation of so-called achievement criteria. The ability to control and measure performance ensures the implementation of e.g. a budgeting system or Balanced Scorecard. Using a benchmarking technique is recommended – assessment of the responsibility for effectiveness and efficiency is based on the very best results of companies and other organizations (Jaruga et al., 2001, pp. 660, 74–75; Horngren et al., 1991; Drury, 2000, p. 5; Hansen, Mowen, 2003, p. 9). While making an appraisal of performance it is important to provide good quality information resulting from the management accounting system. It guarantees the selection of appropriate measures. While choosing these measures attention should be paid to three connected aspects: technical, behavioral and cultural. The technical aspect assures that the appropriate measure is useful and comprehensible. These features are required from information by management control standards for the public finance sector. The behavioral aspect points out that the correct measures should influence the behavior of people who are concerned with this information. Cultural aspects ensure that the measure supports the ability to act desirably through influence on the subconscious of the organization’s members (Jaruga et al., 2001, pp. 511–513; Carenys, 2010, pp. 45–46). Table 4 contains the definitions and features of all mentioned aspects.

5 Detailed control mechanisms concerning financial and economic operations are indicated in control standards in the section called mechanisms. Recommendations are to be found in the Public Finance Act and the Accounting Act. Moreover, one can find there recommendations concerning the use of information technology systems in order to ensure the safety of data and systems, especially when it comes to the security of personal data in the field of financial accounting and human resources.
Table 4. The meaning of fair measure aspects

<table>
<thead>
<tr>
<th>Aspect</th>
<th>The meaning of particular aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical aspect</strong> assures:</td>
<td>– understanding of work processes and management</td>
</tr>
<tr>
<td></td>
<td>– understanding of causalities in processes</td>
</tr>
<tr>
<td></td>
<td>– identification of activities which bring no value or are dysfunctional</td>
</tr>
<tr>
<td></td>
<td>– identification of tie-ups within organization and in its environment</td>
</tr>
<tr>
<td><strong>Behavioral aspect</strong> influences behaviors through:</td>
<td>– change of ways of thinking and perception(by showing the implicit states)</td>
</tr>
<tr>
<td></td>
<td>– undertaking motivating activities</td>
</tr>
<tr>
<td></td>
<td>– changing assessment of participation in own decisions and activities in successes and failures</td>
</tr>
<tr>
<td><strong>Cultural aspect</strong> pays attention to values and takes into consideration:</td>
<td>– convictions and ethical values which have crucial meaning by assessment of activity values</td>
</tr>
<tr>
<td></td>
<td>– ways of thinking that dominate and decide about approval or rejection of each measure</td>
</tr>
<tr>
<td></td>
<td>– political values which influence on resource allocation and the way the social groups interests are concerned,</td>
</tr>
<tr>
<td></td>
<td>– organizational values which illustrates the image of certain organization</td>
</tr>
</tbody>
</table>


With regards information quality, it is indicated that the advantage of benefits over costs decides its decision-making value. Benefits result from ownership and costs are driven from obtaining this information. Additionally, concerning both management accounting and management control standards, features like comprehensibility and suitability are of great importance.

The last element of management control is defined by management control standards for the public finance sector. This element concerns how the management control system is monitored and assessed. In this field the activities consist of monitoring the effectiveness of the management control system, self-esteem and internal audit. These activities should guarantee that the manager of the unit makes a statement in which he or she ensures the management control conditions (Standardy kontroli, 2009, p. 6). The described activities indicate that the units operating in the public finance sector inspect the management control. Market-oriented units perform a double check when the internal audit department operates within the structure of this unit. In these units the internal audit department is very often found to be an element of corporate governance. On the basis of these results it is possible to make the assumption that, in the field of management accounting, the control of management control

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6 Corporate governance is connected with the relation network among management staff, board of directors, board of trustees, shareholders and others. Moreover it creates the structure used to set up the goals and resources essential for their accomplishment and motivation. Decent corporate governance system should encourage the management staff, board of directors, board of trustees to achieve goals which act in companies and its shareholders best interest. Additionally it should ease effective monitoring which allows to use resources more efficient (Winiarska, 2007, p. 86).
occurs when the unit is going to achieve previously set goals. This will be done when the integration and effort of interested and dedicated groups of employees takes place. Additionally, they should improve their performance assessment and revise their plans and goals when they find out that those plans and goals are impossible to be achieved or are not ambitious enough. Customers, the market or a variable environment can enforce the control of management control as well.

2. Assessment of the management control function in the field of applying management accounting tools

26 independent health-care providers other than entrepreneurs took part in a survey by completing application forms. 61.5% of respondents stated they were funded by a local authority unit, 30.8% by a minister or a civil service unit, 3.8% the provincial governor, and 3.8% stated it was a public medical university or other public colleges carrying out classes and research in the field of medical studies.

The surveyed units declared that they implement several sorts of control, not only management ones, e.g. financial control standards (84.6% of units), internal audit (65.4%) and ISO Quality Management System Certificated (65.4%). Placing the Quality Management System (QMS) in the questionnaire form was the result of qualitative research. The conducted research indicated that QMS, in contrast to the control mechanisms required by the Act, is implemented and maintained on the unit’s own initiative. This approach is the justification for the correlation between holding the QMS certificate and the researched fields (management accounting tools and control stood for criteria).

The selected conditions and circumstances of the management accounting system (especially responsibility accounting) were settled as basic criteria for management control assessment. Whether the selected unit owns the management accounting system depends on the managers’ needs. The healthcare organisations investigated were asked to point out which employees participate in defining the managerial information (table 5). Taking into consideration the answers „very large participation” and „large participation”, the chief accountant is believed to be the employee most dedicated to this process with a score of 88.4%. Next is the chief medical officer (65.4%), the chief financial officer (61.5%), and then the chief economic officer (57.7%). The smallest participation in this process is taken by business core center managers (34.6%) and supporting business activity center managers (23.1%). The specifications of the medical business justifies the fact that the chief medical director plays a big part in defining managerial needs. As far as information needs are concerned, the chief accountants require financial information, including reporting. The rest of the higher level managers use information to make tactical decisions which influence the whole unit. The fact that medium level managers play a small part in defining managerial information may be worrying. These employees participate directly in core
medical activities. They, with the broadest knowledge of the activity of the unit, should be expected to support the effectiveness of the management.

**Table 5.** The evaluation managers’ participation in creating and defining managerial information

<table>
<thead>
<tr>
<th>Detailed list</th>
<th>No participation</th>
<th>Small participation</th>
<th>Medium participation</th>
<th>Large participation</th>
<th>Very large participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief medical officer</td>
<td>15.4%</td>
<td>11.5%</td>
<td>7.7%</td>
<td>30.8%</td>
<td>34.6%</td>
</tr>
<tr>
<td>Chief economic officer</td>
<td>38.5%</td>
<td>0.0%</td>
<td>3.8%</td>
<td>7.7%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Chief financial officer</td>
<td>38.5%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>19.2%</td>
<td>42.3%</td>
</tr>
<tr>
<td>The chief accountant</td>
<td>0.0%</td>
<td>0.0%</td>
<td>11.5%</td>
<td>34.6%</td>
<td>53.8%</td>
</tr>
<tr>
<td>Business core centers managers</td>
<td>11.5%</td>
<td>19.2%</td>
<td>34.6%</td>
<td>23.1%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Supporting business core centers managers</td>
<td>15.4%</td>
<td>23.1%</td>
<td>38.5%</td>
<td>15.4%</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

Source: own study based on the survey results, December 2012.

The survey respondents often justified smaller participation by lack of economic background essential and helpful to managing. This was especially true with business core center managers (ward managers and doctors who manage specialist clinical treatments) and supporting business core center managers (laboratory diagnostics). Ultimately, they also admitted that the controlling services in the surveyed units do not operate correctly. They should be in charge of creating managerial medical-business-oriented information awareness, but employees without a medical background are unable to define such needs in the field of activity improvement. Hence the cooperation is indispensable.

However, the researched healthcare organizations, especially those which implemented the Quality Management System indicate that they are unaware of information needs. They can only point out and refer to aims in the Quality Policy which describe their ways and measurement of achieving goals The surveyed units were also asked how they define, communicate and measure goals, establish responsibility for achievement and delegate the decision-making powers in this field. In this context these issues and terms are conditions necessary for responsibility accounting to operate and function. While all the researched units declare that they define strategic goals, and almost all of them communicate them to their employees, only those units which implemented QMS indicate a more developed awareness of how to achieve these goals (table 6).

Statistical research using the Chi-square Pearson statistical test shows a significant linear relation and high correlation ratio between having the QMS and the fact that units elaborate strategic goals via operational aims formulation (94.4% of cases), assign achievement measurements (88.2%), delegate employees responsible for the performance (82.4%) and delegate decision-making powers (88.2%).
Table 6. Goals and responsibility definition, communication and measurement assessment in healthcare organizations

<table>
<thead>
<tr>
<th>Detailed list</th>
<th>Units using QMS</th>
<th>Units with no QMS</th>
<th>All observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit strategic goals determined</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Employees informed about the strategic goals</td>
<td>88.9%</td>
<td>100.0%</td>
<td>96.2%</td>
</tr>
<tr>
<td>Strategic goals detailed by operational aims formulation</td>
<td>94.1%</td>
<td>44.4%</td>
<td>76.9%</td>
</tr>
<tr>
<td>Achievement measurements assigned to determined goals</td>
<td>88.2%</td>
<td>44.4%</td>
<td>73.1%</td>
</tr>
<tr>
<td>Employees responsible for fulfilling operational goals appointed</td>
<td>82.4%</td>
<td>44.4%</td>
<td>69.2%</td>
</tr>
<tr>
<td>Making-decision powers delegated to employees in charge</td>
<td>88.2%</td>
<td>55.6%</td>
<td>76.9%</td>
</tr>
</tbody>
</table>

Source: own study based on survey results, December 2012.

Healthcare organizations, especially those with QMS implemented, follow recommendations set in management control standards for the public sector. These recommendations are described mainly in the chapter named *Goals and risk management*. Task and aim hierarchy settings, and the measurement of their achievement, are concerned in these orders. The described process, particularly in units with QMS, is formalized and very often contained in a Quality Policy or a so-called Quality Book/Register. Statements of management control performance collected and available in Public Information Bulletins confirm that units without QMS do not use formalized strategy-bound task and goal setting systems. The task performance monitoring process is assessed as incomplete. Managers indicate they encounter difficulties at defining measures and quantifying them. They make an accusation against medium level managers who are in charge of the carrying out medical business core operations. When interviewed, they claim and admit that there are no departments or employees in their units able to combine both medical and economic aspects in order to improve effectiveness of management. The structure of the units investigated shows dedicated departments in charge of accounting for incurred costs by applying only quantitative statistical-medical measures.

Every organization, including healthcare organizations, which wants to achieve its goals should operate within a decentralized structure able to delegate the powers. Management Control Standards for the Public Sector include these recommendations i.e. adapting the organization structure to its tasks and goals, as well as appointing employees as workers responsible for achieving these aims. The above-mentioned recommendations are contained in the chapter named *Internal Environment*. The decentralization and delegation of powers, also called the isolation of centers of responsibility, are also essential conditions for the responsible accounting system to operate and function. Table 7 shows the assessment of decentralization levels in the responsibility accounting system.
Table 7. The assessment of decentralization level in responsibility accounting system in healthcare organizations

<table>
<thead>
<tr>
<th>Detailed list</th>
<th>Units using QMS</th>
<th>Units with no QMS</th>
<th>All observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>The centers responsible for costs are isolated in the organization’s structure</td>
<td>94.1%</td>
<td>100%</td>
<td>96.2%</td>
</tr>
<tr>
<td>The centers responsible for revenues and costs (profitability centers) are isolated in the organization’s structure</td>
<td>82.4%</td>
<td>88.9%</td>
<td>84.6%</td>
</tr>
<tr>
<td>The centers responsible for revenues, costs and resources (investment centers) are isolated in the organization’s structure</td>
<td>64.7%</td>
<td>55.6%</td>
<td>61.5%</td>
</tr>
<tr>
<td>Employees in charge of a selected unit are entitled to make decisions</td>
<td>64.7%</td>
<td>33.3%</td>
<td>53.8%</td>
</tr>
<tr>
<td>Employees in charge of making decisions are simultaneously responsible for the achievement of goals</td>
<td>76.5%</td>
<td>33.3%</td>
<td>61.5%</td>
</tr>
</tbody>
</table>

Source: own study based on survey results, December 2012.

Statistical research using the Chi-square Pearson statistical test shows a significant linear relation and high correlation ratio between having the QMS and the fact that healthcare organization units within their isolated responsibility centers delegate the following responsibilities to their employees: powers in decision making (64.7%) and responsibility for the achievement of goals (76.5%). However, healthcare organizations without QMS follow the very same steps in the field of responsibilities and powers. Larger responsibility should be followed by large delegated powers at the same time. These factors are determined by the fact that healthcare organizations with implemented QMS quantify their tasks and goals to a larger extent. Eventually, in practice, these recommendations are reduced to formal records placed in e.g. monthly published monitoring in documentation required for accreditation.

A generally high level of decentralization is distinguished by isolated centers of responsibility in the organizational structure, with cost centers being the majority (96.2% of cases). However, this observation is not followed by any activity typical for responsibility accounting e.g. implementing planning and control tools. As the researched units pointed out, the expenditure centers are all that remain of the unbinding Health and Social Welfare Minister’s directive on 22 December 1998 regulating particular cost accounting principles in public healthcare organizations. These expenditures centers were then permanently encoded as basic and supporting business core cost centers in organizational structures and general financial and accounts plans. In order to plan and control in cost centers one needs to assume historical budget costs for a particular cost center corrected by the inflation ratio. In such a constructed budget costs are presented divided into two groups, those directly associated with the cost center, and those indirectly associated. The latter costs are often assigned to centers via quantitative cost carriers taken from the so-called supporting business core
cost centers. To measure this budget, the performance percentage ratio of costs incurred in a particular period of time should be calculated and compared to historical budgeted costs. 76.9% of all researched organizations, regardless of using or not using the QMS, conduct such operations, use such tools and name it annual operational budget (table 8).

Profitability centers in healthcare organizations are mainly associated with supporting business core cost centers, i.e. this activity is not regulated by an agreement (contract) with the National Health Fund. If these centers provide healthcare services within the unit they can and often do sell them also to outside consumers, however, unit’s scope of selling operations is limited. The reason for such behavior is the fact that information about healthcare services provided by the organization is made generally known and, in accordance with the 2011 Act, article 14, may not have any commercial characteristics.

Investment centers in healthcare organizations are associated with the scope of responsibilities and entitlements of managers who make decisions concerning the whole organization. In accordance with this approach, the unit’s director is chosen to perform the role of investment center. However the realization of investment requires approval from the performing authority after approvals have been received from and consultative authority (e.g. Social Hospital Council). The investments undertaken by healthcare organizations are often not evaluated via a Return On Investment (ROI) ratio, Payback Period Method or Net Present Value. Frequently the realization of these investments is treated as a requirement for contracted services which can change during the agreement. Effective investment planning is handicapped due to the lack of open-ended contracts in healthcare services. Additionally, it prevents the unit from long-term planning.

The next survey question asked about particular management accounting tools implemented in healthcare organizations (see table 8). The assessment of how often these tools are used was verified by interviews carried out in and with the units. This question corresponds to the chapter named Control Mechanisms in management control standards for public sector units.

Only 11.5% of the researched organizations declared that they operate on a multistage profit margin (mark-up) calculation. Taking this fact into consideration, the conclusion may be drawn that distinguished responsibility centers lack performance and effectiveness evaluation. The essence of a decentralized organization with isolated centers of responsibility performance should be undertaking effective activities on an operational level. That is the reason why implementation of management accounting tools for performance evaluation should also take place in accordance with the level of responsibility. Lack of these evaluation methods like multistage profit margin (mark-up) calculations proves that the researched healthcare organizations do not analyze the performance of distinguished center structure. The results of qualitative surveys confirm this.
Management accounting in the implementation of management control in healthcare organizations

Table 8. The assessment of selected management accounting tools in healthcare organizations

<table>
<thead>
<tr>
<th>Detailed list</th>
<th>Units with QMS</th>
<th>Units with no QMS</th>
<th>All observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost accounting in accordance with the 1998 directive</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Standard cost accounting</td>
<td>64.7%</td>
<td>33.3%</td>
<td>53.8%</td>
</tr>
<tr>
<td>Long-term planning</td>
<td>82.4%</td>
<td>44.4%</td>
<td>69.2%</td>
</tr>
<tr>
<td>Annual operational budget</td>
<td>76.5%</td>
<td>77.8%</td>
<td>76.9%</td>
</tr>
<tr>
<td>Cost, revenue and result variation analysis</td>
<td>76.5%</td>
<td>77.8%</td>
<td>76.9%</td>
</tr>
<tr>
<td>Cost-per-unit calculation</td>
<td>88.2%</td>
<td>66.7%</td>
<td>80.8%</td>
</tr>
<tr>
<td>Break-even-point calculation</td>
<td>64.7%</td>
<td>44.4%</td>
<td>57.7%</td>
</tr>
<tr>
<td>Multistage profit margin (mark-up) calculation</td>
<td>11.8%</td>
<td>11.1%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Effectiveness evaluation of investment projects</td>
<td>76.5%</td>
<td>33.3%</td>
<td>61.5%</td>
</tr>
<tr>
<td>Balanced Scorecard</td>
<td>11.8%</td>
<td>11.1%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Economic Value Added (EVA)</td>
<td>17.6%</td>
<td>0.0%</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

Source: own study based on results of survey reports, December 2012; Szycha (2008, p. 240).

Taking into consideration the rest of the tools that should be implemented depending on responsibility center characteristics, the recommendations received from the researched organizations concern only the unit cost calculation (80.8% of cases). As a matter of a fact, this is the only repeatable operation which takes place in particular cost (expenditure) centers. This operation is carried out in accordance with the unbinding directive regulating cost accounting for public units. This approach enables actual supporting business core activity costs and ultimately the full cost of production with overhead expenditure added to it to be calculated (Directive, 1998, article 6). Despite the fact that this directive has been unbinding since July 2011, the survey results show that the specified rules in this directive are still in use. The cost per unit calculated in accordance with that methodology is useless and worthless from the management needs’ point of view as the calculations done in every reporting period do not allow decisions about e.g. unused production capacity to be made. The whole organization potential is included in the service cost. This information is not corrected even by data collected from medical-statistical reports. 80.8% of researched organizations prepare this sort of report every month (see table 9).

The results of the survey stressed that especially the units with QMS implemented (64.7% of them) use standard cost accounting. Statistical research using the Chi-square Pearson statistical test shows a significant linear relation and high correlation ratio. A survey conducted in 2010 among 150 randomly selected healthcare organizations in Poland indicated that organizations are definitely less interested in this tool (Baran, 2011, pp. 13–14). Quantitative research in healthcare organizations was carried out in order to evaluate whether this cost accounting model is able to provide managerial information. In addition, the results highlighted the fact that 76% of organizations use cost, revenue and result variation analysis. The following assumption
was made: implementing and using cost accounting enables variation analysis, the
determination of variation trends (profitable, unprofitable, increasing, decreasing,
one-time, repetitive), standards verification and the possibility to undertake corrections. Unfortunately, these analyses have nothing in common with implementing standard cost accounting which is temporarily used to calculate the cost of medical procedures in accordance with an annex to an unbinding directive. This directive regulates cost accounting which determines the quantitative statement of resources used when carrying out typical medical procedures. It is indicated in the results of the survey that the information is very often used as a basis for setting the amount of so-called calculation units for settling costs of supporting cost centers. The opportunities for using the information about the procedural costs of a unit procedure were not highly rated from a managerial point of view in a survey conducted among public healthcare organizations in 2008 (Baran, 2010, pp. 14–15).

No significant difference among the researched organizations was indicated in the field of the annual operational budget (76.9%). The low estimation of variation analysis proves it isn’t a very useful tool. Additionally, the principles of budget preparation and performance evaluation mentioned above (in the section concerning how cost centers operate in healthcare organizations) confirm that too.

The other management accounting tools were evaluated from the point of view of their usefulness for evaluating the efficiency of responsibility centers. The results are based on the fact that a significant linear relation and high correlation ratio were indicated in reference to organizations with QMS. 64.7% of the researched units also highlight break-even-point analysis. However, information collected from this analysis is used for setting the indicators to evaluate operations designed for the accreditation’s projection. These indicators are often shown in the Quality Policy or Quality Book.

The use of investment effectiveness evaluation tools by organizations with QMS (75.6% of respondents) was essential to meet some requirements. These requirements were obligatory when the organization received EU funds for an investment project e.g. mainly the purchase of medical equipment, seldom for infrastructure modernization. This was an opportunity for only those units (17.6%) to also use Economic Value Added as a tool.

In accordance with the opinions of the researched units, implementing strategic management accounting tools should be evaluated from the point of view of a formal operation. For organizations with QMS, 82.4% use the tool of long-term planning. However, this is due more to such a declaration being a requirement for QMS accreditation rather than the outcome of actual decisions, operations and activities as a result of its use. Due to the conditions of contracts in healthcare organizations, long-term planning is a handicap. The Balanced Scorecard, with a score of 11.5%, is very rarely used in the matter of strategic management. However, the organizations are very well aware of the theoretical assumptions of this tool, but they seldom, or unintentionally, combine operations in order to improve effectiveness and achieve the measures for each perspective.
The evaluation of a reporting system is a supplement to the function of responsibility accounting system. Planning and control tools are very important in this system. Such an element is also indicated in management control standards for the public finance sector, known as *Information and communication*. Table 9 compares several sorts of reports and shows how often they are prepared.

**Table 9.** Selected reports and how often do they occur

<table>
<thead>
<tr>
<th>Detailed list</th>
<th>Often the once a month</th>
<th>Quarterly</th>
<th>Every half a year</th>
<th>Annually</th>
<th>If necessary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales budget completion report</td>
<td>69.2%</td>
<td>23.1%</td>
<td>3.8%</td>
<td>0.0%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Cost budget completion report</td>
<td>57.7%</td>
<td>34.6%</td>
<td>3.8%</td>
<td>0.0%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Statistical-medical reports</td>
<td>80.8%</td>
<td>7.7%</td>
<td>7.7%</td>
<td>0.0%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Quantitative variation report</td>
<td>34.6%</td>
<td>26.9%</td>
<td>3.8%</td>
<td>7.7%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Value variation report</td>
<td>42.3%</td>
<td>19.2%</td>
<td>3.8%</td>
<td>7.7%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Management’s on-demand reports</td>
<td>26.9%</td>
<td>15.4%</td>
<td>3.8%</td>
<td>0.0%</td>
<td>53.8%</td>
</tr>
</tbody>
</table>

Source: own study based on the results of a survey, December 2012.

The most frequently prepared monthly report is a statistical-medical data report. It is the result of reporting obligations in the field and the necessity to report to an external control body. 92% of the surveyed organizations prepare sales and cost budget completions reports monthly or quarterly. The evaluation of these budgets is limited to comparisons between those contracted for a selected year’s sales value/amount and historical, appropriately corrected cost budgets. Therefore, these reports are for statistical use. To verify management reports, data collected from quantitative and qualitative variation reports and management’s on-demand reports were used. It seems to be very difficult to explicitly evaluate these results. The most appropriate answer is to indicate that the frequency of preparing the reports should be determined by management staff’s needs. The comparison of the assembled results with the knowledge gained during the interviews settles the matter of the low quality of information presented in the reports. This is especially true regarding the lack of implementation of cost accounting in organisations.

The management staff of the healthcare organisations observed claim that they do not work in conditions favourable to generating information for the use of management. It is not mainly determined by the lack of the NHS’s competition or negotiation for which cost information would be binding. Management control (declared to have been implemented by the organisations) does not use management accounting tools, at least not by all means, intended activities. Management control is one of the formal duties for organisations to implement.

This evaluation coincides with the opinions concerning management control released by the Supreme Chamber of Control. As a result, the following theory arises: management control systems focus on formal aspects in many units, and the information generated by these systems are not used for current and ongoing management (*Internal audit*, 2002, p. 9).
3. The management control system in a healthcare organization

The management control system should promote efficient resource allocation in a healthcare organization and provide information essential for making managerial decisions. It means that the management control system will use the structure of the responsibility accounting system and, additionally, selected tools of management accounting.

Generally, the essence of responsibility accounting comes down to designing two parts of the system. The first is the planning system which requires managers’ participation in preparing plans for the centers’ activity. Managers are responsible for this activity and its control, and the center is in charge of preparing periodic reports about its planned activity. The reports mentioned above let the managers compare the current performance with the planned performance (Świderska, 2010, pp. 12–14; Young, 2008, p. 220).

Before the healthcare organizations set about working on designing the responsibility accounting system they should evaluate its management style. The typology of management styles by Tannenbaum and Schmidt was used for the needs of this research. If a chosen management style is „advisable”, „consulting” or „participating” then it is logical to assume that the implementation of a responsibility accounting system will be a success (Weber, 2002, p. 13). The majority of the units researched (70% of them) indicated that they use a „consulting” management style. It is characterized by a superior informing subordinates about the decisions to be made. However, the subordinate is allowed to review a particular case before the final decision is made by the superior.

Designing a responsibility accounting system that enables the operating of a management control system in the unit is not easy. It is pointed out that responsibility accounting principles are incomplete and sometimes contradictory. Additionally, another difficulty in this field is the behavioral aspect. Despite these restrictions, responsibility accounting principles ensure the right way of thinking about important management problems, so it seems better to implement them than ignore them (Young, 2008, pp. 222–223).

The designing of responsibility accounting is preceded by setting strategic goals by the healthcare organization. At this early stage the Balanced Scorecard as a tool of management accounting may be used. Generally this tool balances short- and long-term, internal and external, financial and non-financial aims and measures. Its methodology uses procedures of operational management accounting – the performance measurement system – based on four perspectives: financial, customer, internal operations, and growth and the organization’s learning (Kaplan, Norton, 2001, pp. 41–45).

In the QMS system of the researched organizations, the strategic goals are settled as the main goal e.g. improvement of service quality, growth of customers and employee satisfaction, and realizations of the business aims of the unit. Units define particular measures, or indicators, for the performance of these goals in a specific
time period. In addition, they show how to reach these goals and highlight the employees who should take responsibility for this. The demonstration of the main (strategic) and detailed (operational) goals with their placement within the four perspectives of the Balanced Scorecard is shown in table 10.

**Table 10. Selected business goals of healthcare organization in the view of four Balanced Scorecard perspectives**

<table>
<thead>
<tr>
<th>Goals (main/detailed)</th>
<th>Measure</th>
<th>Value</th>
<th>Employee in charge</th>
<th>Expiration date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness increase (financial perspective)</td>
<td>Sales profitability</td>
<td>5%</td>
<td>Controller</td>
<td>2 years</td>
</tr>
<tr>
<td>Customer satisfaction growth (customer perspective)</td>
<td>Survey results</td>
<td>Not less than 80% of 4 or 5 grades in the survey; Complaints state less than 1%</td>
<td>Senior registrar, ward, lab manager</td>
<td>3 months</td>
</tr>
<tr>
<td>Cost reduction (internal operations perspective)</td>
<td>Level of costs</td>
<td>(−) 10% in comparison to previous year’s performance</td>
<td>Senior registrar, ward, lab manager</td>
<td>6 months</td>
</tr>
<tr>
<td>Implementation of modern treatment method (growth &amp; learning perspective)</td>
<td>Increase of procedures done with X methodology</td>
<td>Reduction by 20% of complication in comparison to statistical data</td>
<td>Doctors and surgical assistants</td>
<td>1 year</td>
</tr>
</tbody>
</table>


Determination of the structure of responsibility centers is essential for healthcare organizations to perform their goals. Moreover, delegating employees responsible for proper running of things is the essence of this system. Specialist literature suggests that factors which can be controlled or influenced should be a matter of the manager’s responsibility, and these factors should set the basis of the manager’s performance assessment. In practice, the situation where an employee in charge has control over everything is impossible. That is why the matter of delegating responsibility in a particular organization should be conventional, contractual or symbolic (Demski, Sapppington, 1989, p. 40; Choudhury, 1986, p. 189).

The structure of the responsibility accounting system may be designed by using five types of responsibility centers (compare table 11). These centers should be in charge of control, and in the process of their operations corrections should take places in order to enable the organization to achieve its goals. The literature stresses that the whole organization depends on employees who control responsibility fields. If the control duties are not properly carried out at this level, the top managers will not be able to achieve success (Ferrara, 1982, pp. 46–47).
Aside from determining the structure of responsibility centers, the right choice of appropriate management accounting tools is a key aspect in designing the management control system. It will be dependent on the kind of tasks to be carried out and the measures used to assess them. In addition, an individual manager’s needs in a particular responsibility center should be taken into consideration. This should be followed by determining matters to do with the reports e.g. the sort of reports to be compiled, their structure and the frequency of their preparation. The factors, especially costs, assessed in these reports are to be analyzed and considered in two sections: controlled and not controlled. The reporting frequency differs and often is dependent on the set goal. Particularly at lower responsibility levels, the reporting form should not always be formalized as, very often, visual observation and preventive controls are quicker to respond to ongoing variations and obstacles to the plans being achieved. The choice of non-financial measures, especially statistical-medical ones, may be more suitable for lower levels of responsibility than financial ones. Higher responsibility levels require the organization’s performance to be expressed in financial measures (Ferrara, 1982, pp. 47–48).

Using the results of research of the literature and surveys conducted in healthcare organizations, there is an example of responsibility centers in the management control system structure in table 11.

**Table 11.** Model structure of responsibilities centers within management control system

<table>
<thead>
<tr>
<th>Responsibility object</th>
<th>Responsibility subject</th>
<th>Measure criteria</th>
<th>Planning and control tools</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue recognised by the center</strong></td>
<td><strong>Responsibility center – revenue center</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(revenue from medical and non-medical activity)</td>
<td>Depending on the healthcare organisation’s structure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>– organisation in charge of contracting and accounting for agreements with the National Health Fund, reaching agreements for healthcare services provided to institutions and individual consumers</td>
<td>– growth sales ratio</td>
<td>– Balanced Scorecard</td>
</tr>
<tr>
<td></td>
<td>– administrative units in charge of selling the supporting business core activity operations (e.g. kitchen, laundry), office/floor space</td>
<td>– growth in number of consumers of the service</td>
<td>(can be used in every sort of center due to complexity of ratios in all perspectives)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>– benchmarking</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>– operational budget (of sales)</td>
</tr>
</tbody>
</table>
### Responsibility object | Responsibility subject | Measure criteria | Planning and control tools
--- | --- | --- | ---
**Responsibility center – profit (profitability) center** | Profit (revenues and costs of business activity) | – profit earned by the center<br>– profit earned on particular services<br>– level of costs<br>– number of new procedures<br>– multistage profit margin (mark-up) calculation<br>– break-even-point<br>– operational budget (of costs)<br>– standard cost accounting, variation analysis<br>– activity-based costing<br>– transfer pricing |  
If the organisation sells the services provided:<br>– business core activity units (wards, specialist clinics)<br>– supporting business core activity units: medical (diagnostic labs), non-medical (e.g. kitchen, laundry)<br>– variation from standard costs<br>– ratio of resources exploited |  
--- | Business Core and supporting business core activity units not allowed to sell services outside | – budget variations | – budgeting with usage of activity-based costing in order to analyse variations of resources and activities in the center |  
--- | Organisational units in charge of operating the healthcare organisation as a whole-board, administration department | – ROI, RI, EVA | – measurements of investment expenditure, capital investment budget, and cash budget
--- | Organizational units using their assets of essential value in order to generate income by a particular center |  |  

An individual approach to designing responsibility centers in management control systems is required. As mentioned, contractual operations are often demanded too. The organizations should implement definite indicators and motivational systems associated with the assessment criteria, as undoubtedly they emphasize the effectiveness of the decisions taken. The results of the research indicate that financial motivational factors are rarely used. The opportunity to improve employees’ qualifications is taken more seriously.

When designing a responsibility accounting system one should take into consideration that a well-designed responsibility accounting system should take into account three groups of criteria (Young, 2008, pp. 524–525):
1) structure criteria – the structure should be *well designed*, i.e. managers in a certain responsibility center are responsible for only those factors which they have sensible, well-founded control which falls within the scope of their possibilities;

2) process criteria – in the management accounting system a periodic process should take place and consist of four phases: programming, operational budgeting, measurement, reporting;

3) behavioral criteria – concerning the managers’ behavior in all the managerial stages in all the responsibility centers. They refer to the necessity of taking the management control system seriously and actual commitment into planning and budgeting processes satisfy selected organization’s needs.

The organizations studied indicated basic problems by designing a management control system which uses responsibility accounting and selected management accounting tools. Those problems affect the matter of delegating to center managers explicit responsibilities. For instance, in the case of revenue centers, it is impossible to sell the healthcare services if they have not been contracted in an agreement with the NHS. There are also limitations with advertising activities. While providing healthcare services the organization can run only information campaigns. In the field of responsibility for costs, decisions concerning what they are, and where they are to be incurred, are legally regulated in contracted agreements and the binding Competitive Tendering Act. Very often the streamlining of medical business activity processes seems to be the only and best way.

Fears for effective resource allocation in healthcare organizations are aroused by the fact that there are formal limitations for non-contracted allocations. The limitations are the justification why diversified assessment criteria, and planning and control tools were designed in the majority of planned responsibility centers. Information awareness was assumed to be built into every level of the responsibility. If there is a lack of possibility to take managerial decisions, one should be aware of their magnitude and the fact that this will result in unused capability.

**Conclusion**

The goal of the article was to identify the management accounting tools which should be used and implemented in accordance with management control principles for healthcare organizations. The assessment of management control in healthcare organizations considering the aspect of implementation of these standards shows in section 2 that units’ declarations are often very formal. Surveys and interviews in the researched organizations confirmed this. The reason for this are a lack of knowledge among the staff who take part in converting data processes, a lack of integrated IT systems, and unfortunately a lack of real management information. No competition among the bodies who finance the healthcare services and limitations due to public finances for medical activity seem to be reasons too.
The second goal of the article was to indicate the management accounting tools which can be used to accomplish management control assumptions. The most appropriate solution, described in section 3, was to use particular management accounting tools in the responsibility accounting system, which are characteristic for the environment the management control is used in.

The system of management control in its methodology uses the expectations and assumptions of responsibility accounting, operational controlling and management control principles for public finance sector. By using management accounting tools to evaluate the investing, operational and financial parts of the business activity this system provides information essential to:

- exercising effective and efficient current control over the business activity;
- planning business activities one year ahead;
- optimizing allocation of material, financial and human resources;
- performing measurement and assessment;
- reducing subjectivity in the process of decision-making;

The above information cannot be found in the researched healthcare organizations. Even the fact that these organizations are legally required to implement the management control standards has not yet influenced either the need for creating the information nor the quality of the managerial information.

Even though the healthcare organizations indicated in the research find usage of the tools of management accounting to be an obstacle, the author recommends putting a lot of effort into implementing these tools.

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Rozporządzenie Ministra Zdrowia i Opieki Społecznej z dnia 22 grudnia 1998 r. w sprawie szczególnych zasad rachunku kosztów w samodzielnich publicznych zakładach opieki zdrowotnej, Dz. U. 1998, nr 164, poz. 1194.
Management accounting in the implementation of management control in healthcare organizations

Internet sources


Summary

In accordance with the Public Finance Act, health-care providers in Poland other than entrepreneurs should implement management control specified in Management Control Standards (Principles) for the Public Sector. Management control in management accounting falls within the scope of responsibility accounting systems known also as management control systems. The aim of this article is to identify the management accounting tools which are used in order to fulfill the recommendations formulated in the management control standards for healthcare organizations. These recommendations are essential for fulfilling the assumptions of management control for these kinds of units. To achieve these aims, a literature research has been conducted. Additionally, quantitative research via questionnaires forms in 26 health-care providers (December 2012) as well as qualitative research in form of interviews in 6 providers (January–February 2013). Research carried out in selected healthcare organizations has shown that management control functions only formally. Management accounting tools are used occasionally and it is unintended action. Users see no need for managerial information.

Keywords: management control, responsibility accounting system, healthcare organizations.

Streszczenie

Rachunkowość zarządcza w realizacji kontroli zarządczej w podmiotach leczniczych

Podmioty lecznicze w Polsce niebędące przedsiębiorcami, zgodnie z ustawą o finansach publicznych, powinny stosować kontrolę zarządczą określoną w standardach kontroli zarządczej dla sektora finansów publicznych. W rachunkowości zarządczej mieści się ona w systemie rachunkowości odpowiedzialności nazywanym czasem systemem kontroli zarządczej. Celem artykułu jest identyfikacja narzędzi rachunkowości zarządczej, które są wykorzystywane w ramach zaleceń sformułowanych w standardach kontroli zarządczej w podmiotach leczniczych oraz tych, które można wykorzystać do realizacji założeń kontroli zarządczej. W związku z tak postawionymi celami zostały przeprowadzone badania literaturowe. Ponadto w grudniu 2012 r. przeprowadzono badania ilościowe za pośrednictwem metody ankietowej w 26 podmiotach leczniczych oraz badania jakościowe z wykorzystaniem wywiadu w sześciu jednostkach (styczeń–luty 2013). Przeprowadzone w wybranych podmiotach leczniczych badania wykazały, że kontrola zarządcza funkcjonuje zaledwie formalnie. Narzędzia rachunkowości zarządczej są wykorzystywane natomiast sporadycznie i są to działania niezamierzone. Nie dostrzega się bowiem potrzeby posiadania informacji na potrzeby zarządzania.

Słowa kluczowe: kontrola zarządcza, system rachunkowości odpowiedzialności, podmioty lecznicze.