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Development of internal audit systems in Polish university hospitals

Abstract

Objectives: The purpose of this article is to discuss the regulations on and the functioning principles for internal audits in the Polish health care system. Additionally, this study presents selected results of empirical research with regard to the effectiveness of internal audits in university hospitals.

Research Design & Methods: To determine the research problems related to the functioning of the internal audit systems in selected university hospitals the authors analysed specialist literature and reviewed earlier studies addressing this question. On the basis of the analysis of such literature and applicable legislation the authors prepared an anonymous questionnaire and distributed it among internal auditors from a number of university hospitals in the voivodship (region) of Western Pomerania, including the city of Szczecin, and in the city of Poznań.

Findings: This paper discusses the legal basis and functioning principles for internal audits in the Polish health care sector. On the basis of a pilot survey study carried out in selected university hospitals in Poland the authors evaluated internal audit efficiency. This study has shown that the perception of the auditor's role and auditing efficiency varies significantly in comparable institutions. These conclusions should be considered as an inspiration for more advanced studies.

Implications / Recommendations: The constantly growing scope of health care institutions bound by the internal audit obligations shows that such audits are indeed necessary and demonstrates the efficiency of internal audits in the public sector.

Contribution / Value Added: The authors point to potential further research on internal audit efficiency in the Polish health care system.

Keywords: internal audit, public health administration, health sector units, auditors.

Article Classification: Research article

JEL classification: H51, I18, M42.

Introduction

Internal auditing became an element of the Polish public finance sector control system in 2002.

Each consecutive amendment of the Public Finance Act (2003, 2005 and 2009), as well as secondary legislation thereto, broadened the list of public sector institutions where internal audits became

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obligatory. After each amendment of applicable laws more and more health care institutions had to introduce internal audit systems. The obligation was first introduced with regard to the biggest organisations, such as university and regional hospitals. Since 2010 smaller units (such as what are referred to as independent public health care establishments) have also been required to create internal audit positions or functions. That last obligation does not apply to the smallest health care units, as long as they meet the conditions specified in the Public Finance Act. However, such units must hire an external service provider to carry out their internal audits.

Internal audits in health care institutions must be organised and performed in accordance with the provisions of the Public Finance Act (2017), secondary legislation and guidelines of the Minister of Finance (2009, 2016 and 2018) in this regard, as well as the internal auditing standards (2016) generally accepted in the public sector. Currently, the following health care system organisations are bound by the internal audit obligation:

- the Ministry of Health,
- the National Health Fund, and
- health care institutions owned by the state or by local governments and independent public health care establishments.

Until the end of 2009 internal audits in health care institutions were carried out by either in-house auditors or superior/supervisory entities. Currently larger institutions are audited by in-house internal auditors, while smaller ones can be audited by an external service provider (the Public Finance Act, 2017).

Auditors should express opinions on the relevance and efficiency of controls introduced by the given unit's manager, as well as on procedures and practices for preparing, classifying and presenting financial information. They should also evaluate compliance with applicable laws, internal regulations and programs, strategies and standards implemented by competent bodies, as well as safe-keeping of the organisation's property. Last but not least, they should evaluate the efficiency and cost-

effectiveness of how the organisation's resources are used and how public funds are spent. It is the auditor's obligation to submit reports containing his/her findings and to present recommendations on how to improve the organisation's performance in the audited areas. Auditors should also review programs and projects in order to verify whether the organisation operates in line with the planned results and goals.

In 2010 audit committees were appointed in all central government ministries (Regulation of the Minister of Finance, 2009, subsequently amended in 2016), including the Ministry of Health. The purpose of the audit committee at the Ministry of Health is to provide advisory services to the Ministry of Health with regard to ensuring adequate, efficient and effective management control and efficient internal auditing across the entire health care sector managed by the Ministry. The scope of the services provided by the committee covers the operation of management control and internal auditing in all units reporting to and supervised by the Ministry.

The purpose of this article is to discuss the regulations on and the functioning principles for internal audits in the Polish health care system. To achieve the objectives set a review of literature in the said scope has been conducted, as well as an analysis of legal acts and regulations in the field of internal auditing, along with the application of the comparative analysis and deduction method. On the basis of a survey carried out in selected university hospitals in Poland, the authors set out to assess internal audit efficiency in those hospitals. On the basis of the study's findings directions for further research in the sector are outlined.

Literature review

A review of scholarly papers on the functioning of internal audit systems in the Polish public finance sector enabled the authors to conclude that theorists most often study local governments (municipalities, districts, and voivodships), as well as ministries and ministerial internal audit

committees. Studies on internal audits in the public finance sector presented in such papers address, *inter alia*, the following issues:

- organisation of internal audit functions in local government units and scope of auditing tasks (e.g. Bartoszewicz & Lelusz, 2010; Szczepankiewicz, 2011c);
- competences of internal auditors and quality of internal audits (e.g. Szczepankiewicz & Młodzik, 2016; Szczepankiewicz, 2017);
- effect of legal regulations and international standards on the formation of internal audits (e.g. Sojka, 2017);
- internal audits performed by external service providers (e.g. Zaleska, 2017b);
- risk analysis carried out by internal auditors (e.g. Zaleska, 2011, 2017a; Szczepankiewicz, 2011b; Szczepankiewicz & Wójtowicz, 2015; Szczepankiewicz & Wojciechowska, 2015);
- links between management control and internal audits (e.g. Warowny, 2014; Kotarski, 2015; Zaleska, 2015; Mituś, 2017);
- the role of ministerial internal audit committees (e.g. Szczepankiewicz & Dudek, 2010; Kotarski, 2014).

In most of the studies mentioned above the authors thereof focused on issues related to the organisation of internal audits in public finance sector entities, as well as on the ways of carrying out audit tasks, determining the audit cycle, and the methods and tools used in risk analysis. Only some of the authors point out to the growing role of internal audits in the context of minimising or reducing operating risks. Only a few studies show that in recent years management bodies have become increasingly aware of the usefulness of internal audits. The advisory role of auditing has developed significantly. However, the authors of this article have not found any empirical studies that focus on measuring internal audit efficiency or show its effect on improving operating results. Existing metrics assessing internal audit efficiency continue to be insufficient.

Having reviewed specialist literature on the functioning of internal audit systems in the Polish

public finance sector the authors of this article concluded that only a few papers address the issue of internal auditing in the health care sector. Research in this field covers such aspects as:

- the cost, organisation and management of hospitals (e.g. Chluska, 2008; Kister, 2010; Mazur, 2010; Jaworzyńska, 2010; Klich, 2010; Piotrowicz, 2010; Buchelt, 2010; Kęsy, 2010);
- the development of internal audit systems in the health care sector, the organisation of internal audit functions in hospitals, and the scope of auditing tasks (e.g. Szczepankiewicz, 2010a, 2010b, 2010c and 2011a; Korendowicz, 2010; Szewieczek & Tkacz-Wolny, 2016; Kotarski, 2015);
- internal auditing as a supporting tool in hospital management used primarily in operating risk analysis and risk management process assessment (e.g. Szczepankiewicz, 2010b, 2010c and 2011b);
- the thematic scope of internal auditing, e.g. medical waste handling, including, in particular, medical waste management risk analysis (e.g. Pawełczyk, 2010);
- the role of internal audits in due diligence procedures, the scope of which is limited to identifying those operating areas in the hospital that are exposed to the highest risk of irregularities (e.g. Foremna-Pilarska, 2015);
- auditing of medical service profitability (e.g. Jarzębińska, 2010);
- internal auditing of quality management systems as a process of assessing the quality of such systems and services (e.g. Dąbrowska, 2010).

It is reasonable to assert that there is a lack of in-depth studies on how internal audit systems in hospitals are currently operated and organised. The gap in the scope of research on internal auditing in hospitals is caused by the significant difficulty in obtaining research material. This applies both to conducting surveys and to access to internal audit documentation maintained by internal audit functions. Internal auditors and hospital staff are reluctant to take part in such studies, citing

lack of time or unwillingness to disclose internal operating information.

Most hospitals in Poland are financially indebted, and their management bodies need to concentrate on financial activity and health service quality. More often than not, internal auditing in these institutions is seen merely as a statutory obligation. Therefore, it is important to conduct research on internal auditing in hospitals. The authors of this article believe that a study covering at least a small number of hospitals will contribute to improving knowledge about the functioning of internal auditing in these institutions, which will help to identify research problems to be addressed via more comprehensive research in the future.

Material and methods

The purpose of empirical research is to understand the functioning of internal audits in hospitals, with regard to methods and techniques used, internal auditors' reporting lines and independence from the audited persons, as well as audit efficiency measured with the number of tasks per year. To determine the research problems related to the functioning of the internal audit system in selected university hospitals the authors of this article analysed specialist literature and reviewed previous studies addressing this question. On the basis of the analysis of literature and applicable legislation the authors prepared an anonymous questionnaire and distributed it among internal auditors in a number of university hospitals in the voivodship (region) of Western Pomerania, including the city of Szczecin, and in the city of Poznań. There are two university hospitals in Szczecin and five university hospitals in Poznań. Responses were received from a total of three university hospitals in the two cities (one university hospital in Szczecin and two in Poznań).

The key reason for selecting university hospitals from among all health care institutions was the complexity of their operations. University hospitals carry out medical, research and educational activities, and consume more public funds than

other hospitals. Their organisational structure is highly complex. They are far more difficult to manage than smaller health care institutions. It is reasonable to assume that internal auditing in university hospitals is a key tool to reassure management about the correctness of processes in place and helps to minimise or eliminate operating risks. The locations of university hospitals covered by the study were selected so as to facilitate the research work.

The questionnaire consisted of Part A and Part B. Part A contained questions necessary to determine the organisational and legal structure of the hospital, its founding body, the population of the city in which the hospital operates, and the type of medical services offered to patients. Part B contained questions which made it possible to analyse and evaluate certain areas and efficiency of the internal audit system at the given institution. Details of the analysed hospitals are presented in Table 1.

The analysed university hospitals, not unlike other university hospitals in Poland, occupy a prominent position in the national health care system. University hospitals operate on the basis of a number of legislative acts, including the Medical Activity Act (2016) and the University Education Law Act (2016). Their activities include patient treatment, scientific research and medical education. As a rule, their statutory tasks include the basic level (university student education, basic health care for patients from the entire region), the specialist and regional level (specialist medical services, post-graduate education), as well as the supra-regional level (medical procedures of the highest reference level, research and development).

According to the data released by the Supreme Audit Office university hospitals perform approximately 25% of all medical procedures in Poland (75% in the case of highly specialist procedures) and thus play an important role in ensuring public health (Wyniki kontroli ..., 2014). In the opinion of the Supreme Audit Office, the economic condition of certain university hospitals in Poland is very poor, threatening their further operation. This

Table 1. Details of the analysed university hospitals

No.	Parameter	Hospital A	Hospital B	Hospital C
1.	Ownership	Public hospital		
2.	Organisational / legal structure	Independent public health care establishment		
3.	Founding body	Medical University		
4.	City population	More than 300,000	More than 600,000	
5.	No. of departments	27	24	14
6.	No. of clinics	20	21	28
7.	No. of other medical units	10	12	12
8.	Awarded certificates	National Centre for Quality Assessment certificates, ISO certificates	National Centre for Quality Assessment certificates, including: ISO – Quality Management System certified for compliance with EN ISO 9001:2008, the hospital is currently preparing for implementing the following standards: ISO 140001, ISO 18001, ISO 27001, HACCP.	National Centre for Quality Assessment certificates, including: ISO – Quality Management System certified for compliance with EN ISO 9001:2008,
9.	Type of medical services offered	Highly specialist clinical services and specialist clinics		
10.	Type of services outsourced to external service providers	Medical transportation		

Source: the authors, on the basis of questionnaires filled in by internal auditors from the analysed hospitals.

fact makes it even more important to assess all tools that support university hospital management (including internal audits) from the perspective of efficiency, i.e. how effectively they support the management in taking efficient medical and non-medical decisions.

The hospitals analysed by the authors are part of what is referred to as the “hospital axis”. The axis is a common name for the PSZ System (2017), or the basic hospital medical services assurance system. The PSZ System was introduced in Poland in 2017. After its introduction, the status of university hospitals was changed to nationwide institutions without any limitations as to the scope of hospital services offered. The funds for treatment as part of the system are awarded on the basis of agreements concluded with the State, i.e. the National Health Fund. Each hospital is awarded annual lump-sum budgets covering all medical services to be provided during the year. The exact amount of the lump sum depends on the number of health services provided

in the preceding year. Some health services are excluded from the lump sum and are accounted for in what is referred to as uniform patients’ group systems (abbreviated as DRG: Diagnostic Related Groups), whereby payments for services are made directly by the State (i.e. the National Health Fund) at the end of the treatment of a specific medical case, on the basis of a report detailing the services provided to the patient in question. The DRG system is operated on the basis of agreements concluded with the National Health Fund.

Results and discussion

Part B of the questionnaire sent to internal auditors from university hospitals contained questions that made it possible to understand the functioning and efficiency of the internal audit system in the given institution. The questionnaire was filled in by internal auditors employed in hospitals on the basis of employment contracts.

The qualifications of the auditors comply with the requirements of the Public Finance Act. All respondents had more than six years of professional experience in the internal auditing capacity. Two auditors had passed a state exam organised between 2003 and 2006 by the Examination Board appointed by the Minister of Finance. One auditor holds a CIA (Certified Internal Auditor) certificate. All of the auditors had professional experience with local government units.

The responses provided by the respondents show that in the analysed hospitals internal auditors are employed on the basis of employment contracts. Such contracts are formally protected, which means that hospitals must consult the Ministry of Health internal audit committee before terminating them or modifying current employment conditions. In this way it is easier for internal auditors to remain independent and unbiased. In both hospitals internal auditors report directly to the hospital manager. They also provide the manager with assurance and consulting services. The internal auditors in the analysed university hospitals have been employed for more than two years, it can therefore be concluded that they know their institutions fairly well.

One of the foundations of the work of internal auditors in health care institutions is trust in an internal auditor's judgment. Such trust can only be built up if the auditor displays an appropriate ethical attitude. The Code of Ethics of internal auditors in public finance sector institutions has been in effect in Poland since 2006. The Code supplements internal audit standards and defines operating guidelines for public sector auditors. It requires them to act with integrity, diligence and fairness. The Code contains a set of principles and rules related to auditing practices, as well as rules of procedure constituting norms of behaviour expected from internal auditors. In the analysed university hospitals internal auditors had also drawn up the following documents:

- a code of ethics;
- an internal audit charter; and
- a book of procedures for internal audits.

The first of the two documents sets out the principles of ethical conduct for internal auditors. The internal audit charter defines the role and tasks internal auditing in hospital (e.g. Szczepankiewicz & Dudek, 2008). The book of procedures for internal audits covers the procedures to be used in internal audits, including descriptions of risk analysis, documentation used in an internal auditor's work, deadlines to be met by internal auditors, procedures to be followed in performing assurance, consulting and verification tasks, as well as legal regulations and international internal audit standards to be followed by auditors (Dudek & Szczepankiewicz, 2009). The existence of such documents should be considered as a good practice. The auditors in the analysed hospitals follow the requirements set forth in the description of internal audit procedures.

Currently, the role of internal auditing in a health care institution involves identification and understanding of potential risks affecting the institution, as well as examination and efficiency assessment of the management control system developed in order to control risks and to ensure financial security of the organisation. The fundamental goal of internal auditing is to support the management in the pursuance of goals and performance of tasks through systematic assessment of management control with regard to how public funds are spent.

Internal auditing in hospitals covers all areas of hospital operation. It is a management tool that assists the management in becoming reasonably sure that: the organisation duly performs its statutory goals and tasks (Piotrowicz, 2010; Korendowicz, 2010); procedures required by law or introduced by the management have been implemented and are followed (Bugdol, 2010; Sułkiewicz & Szomański, 2010); and mechanisms and procedures constituting the internal control system are adequate and efficiently ensure appropriate performance of the entire organisation (Kotarski, 2015; Szewieczek & Tkacz-Wolny, 2016).

Risk analysis is the main tool used by internal auditors (e.g. Szczepankiewicz & Wojciechowska, 2015; Szczepankiewicz & Wójtowicz, 2015). It

must be performed at the stage of developing the audit plan, which in its turn specifies the auditing tasks to be carried out in the following year. Table 2 presents the responses given by internal auditors from the analysed university hospitals to questions about selected issues related to risk analysis procedures.

Internal auditors in the analysed hospitals analyse risks using first of all the mathematical method, which is regarded as being well documented and guaranteeing an unbiased attitude to determining areas exposed to high risk of irregularities. However, it seems that in addition to the internal auditor and the general manager risk analysis should involve a greater number of staff, including, for example, department managers, as they have good hands-on knowledge of their respective areas and can most accurately determine the risk of irregularities that could frustrate the goals to be achieved and the tasks to be performed. Such a situation exists only in analysed hospitals B and C, where the internal auditor:

- relies on opinions on possible risks presented by the general manager as well as managers of departments and other medical units; and
- reviews the risk register maintained as part of the obligatory management control.

The answers provided by the internal auditor from hospital A raise some concerns, as it seems that the risk analysis performed by that auditor does not take into account the risk register, which is a management control tool. That register contains the identified risks attributable to the hospital's statutory goals and tasks, as well as risk owners, risk assessment, acceptable risk levels and responses to risks. Identified risks should be assessed; in other words, their rating needs to be determined. Risk rating is calculated by multiplying risk likelihood by the severity of the consequences of that risk. Risk owners are managers of organisational units, or other employees appointed for that purpose. A risk owner is in charge of managing and monitoring the risk. If the internal auditor used the risk register in risk analyses prepared for the purpose

Table 2. Risk analysis procedures necessary for preparing internal audit plans in the analysed university hospitals

No.	Question	Hospital A	Hospital B	Hospital C
1.	Who participates in the risk analysis?	Internal auditor, hospital manager.	Internal auditor, hospital manager; managers of departments and other medical units participate if and when necessary.	Internal auditor, hospital manager; managers of departments.
2.	Does the auditor carry out tasks outside the internal audit plan?	Yes, whenever necessary, in case of suspected malfunctioning of in a given area.	Yes, at the request of the hospital's general manager and/or department managers.	Yes, at the request of the hospital's general manager and/or department managers.
3.	What risk analysis method is used?	Mathematical method.	Mathematical method and – for additional assistance – statistical method in certain areas.	Mathematical method or statistical method in certain areas.
4.	Does the auditor use the risk register maintained as part of management control?	No.	The register is reviewed by the auditor.	The register is reviewed by the auditor.

Source: the authors, on the basis of questionnaires filled in by internal auditors from the analysed hospitals.

of the audit plan, the quality of the plan would be improved, thus contributing to a greater efficiency of internal auditing.

Responses to question about audit tasks performed in 2016 and 2017 are presented in Table 3.

On the basis of an analysis of the submitted questionnaires the authors concluded that internal auditors complete two to four tasks annually. In 2016 and 2017 assurance tasks in all hospitals concentrated on areas related to IT data security and personal data protection (in response to amendments in personal data protection legislation). The other tasks dealt with such areas as procurement of new medical equipment and materials, efficient materials management, human resources management (medical personnel needs analysis), as well as advisory tasks related to the introduction of additional ISO standards.

In the opinion of the authors the completion of two tasks during a year is insufficient. It is rather surprising that all of the addressed areas belonged to roughly the same thematic field. While it is indeed obligatory for public entity managements to ensure periodical internal audits in the field of information safety at least once a year (e.g.

Sułkiewicz & Szomański, 2010; Karczewska et al., 2016; Regulation of the Council of Ministers, 2012), that should not be at the expense of other areas of operation. In this context it is important to note that the operations of university hospitals are fairly comprehensive, and include medicinal services, research and education. In the authors' opinion each of those fields (and, more specifically, certain predefined areas within those fields) should be audited at least once every two years.

Internal auditors should also evaluate to what extent the organisation's operations are aligned with previous recommendations made by auditors or controllers. Table 4 presents responses to questions about adherence to recommendations issued in different areas.

Among the auditors' responses to questions about how hospitals implement recommendations in the audited areas the most worrying is the first response of the auditor from hospital A. Namely, the auditor admitted that recommendations are followed to a limited extent only. This is due to the fact that there is no obligation to implement all recommendations proposed the internal auditor. The hospital management eventually decide

Table 3. Audit tasks performed in the analysed university hospitals in 2016 and 2017

No.	Question	Hospital A	Hospital B	Hospital C
1.	How many audit tasks were completed in 2016?	2 tasks	3 tasks	2 tasks
2.	What areas of the hospital's operation were covered by audit tasks performed in 2016?	Materials management Information safety	Information safety Public procurement Use of public funds	Information safety Materials management
3.	How many audit tasks were completed in 2017?	Two tasks	Four tasks	Three tasks
4.	What areas of the hospital's operation were covered by audit tasks performed in 2017?	Personal data protection Human resources management	Personal data protection. Materials management Medical personnel needs assessment Advisory tasks – ISO standard implementation	Personal data protection. Public procurement Advisory tasks – ISO standard
5.	Does the internal auditor does attend training courses?	No	Yes	Yes

Source: the authors, on the basis of questionnaires filled in by internal auditors from the analysed hospitals.

Table 4. Adherence to selected recommendations made by the auditors in the analysed university hospitals

No.	Question	Hospital A	Hospital B	Hospital C
1.	Does the hospital follow the recommendations issued by the internal auditor?	To a limited extent.	To a significant extent (approximately 80%).	To a significant extent (approximately 85%).
2.	Does the auditor monitor follow-up activities?	Yes, always.	Yes, always.	Yes, always.
3.	Does the auditor perform tasks related to management control?	No.	No.	No.

Source: the authors, on the basis of questionnaires filled in by internal auditors from the analysed hospitals.

whether or not to introduce the recommendations issued by the internal auditor. Refusals are often justified by a lack of the funds and human resources necessary to implement the internal auditor's recommendations in the audited area.

This inevitably makes one wonder about the very purpose of having an internal audit system in the university hospital in question. Internal audit recommendations are supposed to help eliminate or reduce the deficiencies of management control performed by a hospital's management. If recommendations are not followed, irregularities will not be eliminated and management control over the hospital's goals and tasks will be less efficient. It is reasonable to conclude that statutory compliance is the only reason for the presence of the internal auditor in the university hospital in question. Another fact that confirms there is little appreciation for the internal auditor's role in that hospital is the lack of training that could improve the auditor's professional qualifications and update her knowledge of methods and techniques used in internal auditing. The auditor stated that the hospital management would not agree to such training, due to a lack of funds.

The authors' study revealed strengths and weaknesses of internal audit systems in the analysed university hospitals. The strengths include:

- permanent employment of internal auditors;
- continuity in applying internal audit methods and procedures;
- documented procedures used in internal audits and guidelines on auditors' ethical conduct;

- use of well-documented methods in risk analysis by internal auditors; and
- follow-up of how internal auditors' recommendations are implemented in the audited areas.

The positive aspects of the internal audit system in the two of the analysed university hospitals (i.e. hospitals B and C) include the following:

- the hospital manager and the managers of departments and other medical units participate in risk analyses prepared for the purpose of the internal audit plan;
- the internal auditors use the risk register for the risk analyses prepared for the purpose of the internal audit plan;
- the number of audit tasks completed during the year is appropriate, although their thematic scope is limited;
- the recommendations given by the internal auditors in the audited areas are followed to an appropriated extent; and
- the internal auditors attend training courses.

The negative aspects of the internal audit system in the two of the analysed university hospitals (i.e. hospitals B and C) include the following:

- the internal auditors not monitor follow-up activities; and
- the internal auditors not perform tasks related to management control.

The negative aspects of the internal audit system in hospital A include the following:

- managers do not participate in risk analyses prepared for the purpose of the internal audit plan;

- the internal auditor does not use the risk register for the risk analyses prepared for the purpose of the internal audit plan;
- the number of audit tasks completed during the year is too small and their thematic scope is limited;
- the recommendations given by the internal auditor in the audited areas are followed to a limited extent only; and
- the internal auditor does not attend training courses.

On the basis of the above results it can be concluded that in hospital A the management's awareness of the role of internal auditing in improving the hospital's operation is clearly lower. The management sees internal auditing merely as a statutory obligation. They do not use the internal auditor's advice and thus do not convert it into added value that could improve the hospital's operation. It may also be concluded that in the hospital in question the efficiency of internal auditing is low, which in its turn thwarts the basic function of internal audit, i.e. supporting the hospital's management with regard to efficient management. In Poland, there have been no studies in hospital covering the area outlined in tables 2–4. As a result, no discussion can be presented at this stage.

Conclusions

Internal auditing in the public health care sector in Poland was formally introduced in January 2002. The first institutions to be internally audited included the Ministry of Health, the National Health Fund and other health care institutions that met the criteria specified in the Public Finance Act. Internal auditing is a management tool that helps the organisation's management to be reasonably sure that the organisation's goals and tasks are being achieved, the procedures required by legislation or introduced by the management have been introduced and are complied with, and mechanisms and procedures in the internal control system are relevant and efficient, thus improving the organisation's performance.

Owing to the role and development of internal auditing in the Polish public finance sector its place in the organisational structure of health care institutions is now very important. Constant improvement of how internal auditing is organised and operated in the sector in question is ensured not only by a number of legislative acts and guidelines of the Ministry of Finance but also by the IIA's International Standards for the Professional Practice of Internal Audit (2016), the Code of Ethics (2006), ISACA Standards, and Management Control Standards (2009) based on international concepts and standards of control, as well as ISO standards, e.g. ISO 9001, ISO 140001, ISO 18001, ISO 27001, HACCP (Bugdol, 2010; Wolniak, 2010; Dąbrowska, 2010).

The ongoing process of internal auditing improvement in the public sector will be continued. The constantly growing scope of health care institutions bound by the internal auditing obligation shows that such auditing is indeed necessary and demonstrates the efficiency of internal auditing in the public sector. This is particularly important in the context of health care reform, aimed at creating a state-of-the-art system ensuring efficient patient services, comfortable working conditions for the staff and efficient use of public funds. Due to the poor condition of the Polish health care system and the difficult financial situation of many of its institutions, the system is generally seen as cost-ineffective and poorly managed. Therefore, in line with applicable regulations and generally accepted standards, supporting efficient management, assessment of management control efficiency (including public finance management), and involvement in risk management and execution of supervisory tasks should all be the ultimate goals of introducing and operating internal audit systems.

On the basis of the above results it can be concluded that in the analysed university hospitals the management's awareness of the role of internal auditing in improving the hospitals' operation is very different. Some managers see internal auditing merely as a statutory obligation. The

internal audits do not add added value that could improve the hospitals' operation.

The authors are of the opinion that it is necessary to continue research on internal auditing in the Polish health care system. Studies should cover not only hospitals but also other health care units too. In this way answers to the following questions may be easier to find:

1. How is internal auditing perceived in health care institutions?
2. Are internal audit functions established merely to ensure statutory compliance? Is the auditor merely an observer, or perhaps also an advisor to the organisation's management?
3. Which areas of internal auditing in the analysed institutions need to be improved?
4. What measures need to be taken to ensure actual involvement of department managers in risk analyses prepared for the purpose of the internal audit plan?
5. How to ensure that risk registers are maintained and relied on when preparing internal audit plans for the following year?
6. What are the reasons for excessively low numbers of assurance tasks performed annually and why is their thematic scope so limited? Are these reasons attributable to the shortage of skilled staff (e.g. too few positions in the audit function, unavailability of qualified auditors) or to other reasons?
7. Do department managers implement recommendations given by the internal auditors? If not, why?
8. Which areas of internal auditing need to be improved on the health care system level, for instance by means of new legislation, new guidelines to be issued by the Minister of Health or by any other means?

There have been no studies in Poland in hospital covering the areas outlined in questions 1–8 above. As a result, no discussion can be presented at this stage.

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