

# Quality improvement in the Estonian health system—assessment of progress using an international tool

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## Abstract

**Objectives.** To assess the quality of the Estonian health system with the assessment tool provided by the World Health Organization (WHO).

**Design.** Situation analysis of health care quality using the self-assessment questionnaire proposed by the Council of Europe and WHO Regional Office for Europe as a framework for evaluating national quality activities.

**Setting.** Estonia.

**Main outcome measures.** Four domains for evaluating the national quality activities: policy, organization, methods, and resources.

**Results.** The quality policy of Estonian health care developed in the late 1990s defines the scope of quality and reflects the different viewpoints of stakeholders. Nevertheless, it is not comprehensive enough, activities planned for the involvement of consumers in defining and assessing quality are lacking, and key roles of institutions in quality improvement and incentives for quality are not clearly defined. At present, the responsibilities for quality assurance are distributed among the different stakeholders, but there is no single coordinating structure or mechanism for facilitating or assessing the implementation of the quality activities. Many regulations are established to assure the quality of health services and to protect patients' rights, but the implementation of voluntary mechanisms for quality assurance should be promoted. Access to the sources of information is good, but there is a shortage of unified quality and performance indicators at the national level.

**Conclusion.** The results of this study indicated the strengths and shortages of the present organization of quality activities in Estonia and the ways for improvement. Strengthening coordination with explicit quality monitoring was found as a key factor for improvement.

**Keywords:** country report, Estonia, health system, quality improvement

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## Quality development in Estonian health system

The Estonian health care system has gone through many changes over the past 15 years. In addition to the reforms that have mostly focused on building a sustainable health care financing system and restructuring its institutions and health sector, quality assurance has been an inseparable part of providing medical services to people. However, the focus has varied over the time where up to the 1990s services were guided mainly by strong central instructions, and over the last years, the responsibilities for quality have been distributed throughout the health system (Table 1).

For a long time, much attention was given to professional quality issues of medical treatment. In the middle of the 1990s, in addition to clinical quality, the providers of health services started to pay more attention to patient satisfaction and well-being [1]. Also, step by step, patients' rights were acknowledged and ensured by legal acts [2]. Ongoing financial and structural reforms of the health system also inspired health care managers to introduce new management principles in their organizations, including quality management principles.

An important milestone in the quality assurance of health services in Estonia was the Estonian Health Care Project implemented in 1995–98 [1]. During the project, a health care quality policy document was prepared, which described the

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**Table 1** History of the quality development in Estonian health care system since the early 1990s

Activity	Date	Impetus or rationale
Establishment of central instructions for clinical practice and diagnostics; periodical certification of physicians and nurses on national level; assessment of quality of health services (e.g. mortality, occurrence of post-surgical complications and mortality, differences between referral and final diagnoses, and differences between clinical diagnoses and autopsy findings)	Up to the 1990s	Ensuring the quality of medical procedures, but mainly concentrating on inputs
Establishment of health insurance system	1992 onwards	Change of the financing principles of the health care system, introduction of need-based planning and contracting system, and introducing performance-related payment methods. This has promoted the development of quality enhancement tools such as clinical guidelines, audits, and system of trustee doctors
Reforming providers' network	1992 onwards	Purchaser-provider split, providers operating in various legal forms (not any more under strict State oversight), licensed by Ministry. The restructuring resulting in the reduction of extensive capacity has released resources to implement quality improvement at provider level
Implementation of Estonian Health Care Project	1995–98	Development of the quality policy document for Estonian health care
Setting the various legislative acts to protect the patients' rights	Since 1995	Legislative regulation of the patients' rights in the field of clinical trials, psychiatry, reproductive health and in vitro fertilization, transplantation, infectious diseases, and regulation of patient-provider relationship
Adoption of Health Services Organization Act	2001	Establishment of the unified requirements for structural quality for premises and equipment and for providers of health services; requirements for the registration of health care professionals and licensing of health care providers were introduced (under Health Care Board from 2002). The system of providers was expected to align with new requirements in 3 years to ensure unified quality standards

quality assessment activities, quality assurance and quality management mechanisms, and responsibilities of the stakeholders in the process of quality improvement [3]. Many Estonian health care institutions have used this document to perform quality-related activities and training for health care professionals. Thus, this document contributed to changing the understanding of the concept of quality—moving away from top-down quality control towards bottom-up development and self-regulation to improve quality.

During the 1990s, the Estonian Health Insurance Fund gradually introduced different activities such as quality criteria for contracts between purchaser and provider, development and approval of clinical guidelines, and performing clinical audits and conducting countrywide patient satisfaction surveys, and it has therefore been one of the main implementers of health care quality at the health system level. In 2001, many quality requirements for health services were enacted in the Health Services Organization Act and in subsequent ministerial regulations. To ensure the quality of the health services provided, a new supervision authority—the Health Care Board—was established in 2002. The current distribution of the responsibilities in the field of quality assurance is summarized in Table 2.

## Evaluation of health system quality

The development of the quality of a health system is related to various aspects—organization of the health system, financing and payment system, quality of the health information system, training and education of human resources as well as balance between governmental control and professional self-regulation. Therefore, the evaluation of a quality system is a complex task and requires a framework taking into consideration all of these aspects [4]. In 2000, Shaw and Nicholls proposed a framework for evaluating governmental quality initiatives—the Wimpole Street principles—including four domains: policy, organization, methods, and resources [5]. This proposal inspired many reflections from the authors of different countries [6–8]. On the basis of this framework and recommendation of the Council of Europe, the World Health Organization (WHO) Regional Office for Europe developed a self-assessment questionnaire for the evaluation of national quality activities in health care [4]. This framework was used by Shaw [9] to describe and analyse the implementation of the accreditation programmes in health care systems. However, there is no evidence on how the self-assessment questionnaire proposed by WHO could apply for the evaluation of the quality of the national health system.

**Table 2** Distribution of responsibilities related to quality assurance of health services in 2005

Institution/organization	Responsibilities related to quality assurance of health services
Ministry of Social Affairs	Preparation of draft legislation (including that which is related to the quality assurance of health services) Preparation and approval of health care development plans Development of a national health policy, including the quality policy of health care Collection and analysis of statistical data characterizing the volume of activities of health care providers and their economic indicators
Health Care Board	Licensing of providers of medical care Registration of health care professionals Supervision over compliance with the quality requirements for the structure set in its activity licence Review of complaints from patients or their representatives and provision of expert appraisal of the quality of health services Coordination and organization of the activities of the competency board of health care professionals
Estonian Health Insurance Fund	Establishment of certain requirements for health care providers on the accessibility and quality of health services in the contracts concluded with them Periodical check-up of the quality of the treatment process Carrying out annual patient satisfaction surveys
Professional associations of health professionals	Certification of health professionals Compilation of clinical and nursing guidelines
Health care providers	Implementation of the minimum set of quality requirements established by the Ministry of Social Affairs: carrying out the regular patient satisfaction surveys and managing the patients' complaints, managing the risk of medical procedures, preparation of job descriptions for their employees, devising education plans for employees, and so on
Educational institutions	Undergraduate and postgraduate as well as continuous professional training of health professionals Carrying out various health care surveys, including applied research on quality assurance

In this study, we will systematically assess the quality of the Estonian health system with the assessment tool provided by WHO. Further analysis of current health care quality is provided to stress strengths and challenges. And finally, the analysis provides a short overview of how quality assurance has developed in a country with rapid health care reforms.

## Methods

### Questionnaire

In this study, we used the self-assessment questionnaire proposed by the Council of Europe and WHO Regional Office for Europe as a framework for evaluating national quality activities [4,5]. This questionnaire covers the following topics: (i) policy—comprehensiveness and consistency of the government's values, vision, and strategies for quality improvement, based on evidence and consultation; (ii) organization—existence of effective mechanisms to integrate and implement the national policy within the national and local governments and between all stakeholders; (iii) methodology—promotion of effective methods for quality improvement at the national and local levels; and (iv) resources—identification responsibility for funding and providing the basic knowledge, skills, and information required for quality improvement [4].

### Data collection

In 2004, the Ministry of Social Affairs in collaboration with the WHO Regional Office for Europe initiated the project with the purpose of mapping the quality situation in the Estonian health care system and to present suggestions for planning the national strategy for health care quality. The group of experts included 10 people who represented the major stakeholders—providers of health services, the Ministry of Social Affairs, Health Care Board, Estonian Health Insurance Fund, and researchers from the medical faculty of the University of Tartu—and conducted the situation analysis, including the responsibilities of various organizations in the field of health care quality assurance.

To get the information about the existing quality activities in health care, the members of the work group reviewed the existing sources of information: published reports, research papers, policy documents, and key legislative acts. The data on quality were considered in several areas: national level documents and activities (quality requirements in legal acts, good practice descriptions, treatment guidelines, and other quality-related documents), distribution of responsibilities between agencies, and quality criteria applied at the provider level. Also, an open discussion with a good representation of many stakeholders was held in December 2004. During this one-day workshop, the future developments for strengthening the quality improvement strategy were discussed after presenting the draft results of the study. The issues pointed out during the presentations and ensuing discussions were included as additional information for this study. The findings were summarized and presented in the final report of the project [10].

When performing the analysis, we defined the quality terms as follows. Quality assurance is defined as 'all activities undertaken to predict and prevent poor quality' [11]. Quality management means 'coordinated activities to direct and control an organisation with regard to quality'; quality improvement is defined as 'part of quality management focused on the ability to fulfil quality requirements' [12].

## Results

The results are presented according to the four domains of the questionnaire: policy, organization, methodology, and resources. A detailed description of each domain is summarized in Tables 3–6. The presented results reflect the opinion of the group of experts who performed the assessment.

### Policy

The Quality Policy of Estonian Health Care was developed in 1998. It was formally published and disseminated to stakeholders and is accessible free of charge. The policy was consistent with the national public health priorities as well as with the WHO Health for All policy and considered the existing legal system. The quality policy defines the scope of quality and reflects the different viewpoints of stakeholders. However, it was not comprehensive enough, activities planned for the involvement of consumers in defining and assessing quality are lacking, and key roles in quality improvement and incentives for quality are not clearly defined. Additional policies available in different forms only partially cover health care quality, are overlapping, and are not comprehensive. A detailed description of the policy domain is summarized in Table 3.

### Organization

At present, there is no single coordinating structure or mechanism for facilitating or assessing the implementation of the quality activities by the many stakeholders to be involved (Table 2). Therefore, accountability and mechanisms for implementing quality improvement are not clearly defined. Currently, the Ministry of Social Affairs is not directly coordinating any activities related to the quality assurance of health services, and it does not collect or analyse any quality-related data. Therefore, there is a shortage of designated leadership, accountability, and quality monitoring.

There is a shortage of support structures and resource and information centres for quality improvement. An exception to this situation is the dissemination of clinical standards and guidelines, which is usually initiated by professional societies but supported, coordinated, and endorsed by the Estonian Health Insurance Fund. Also, in 2004, the Ministry of Social Affairs developed recommendations to support the implementation of quality management systems for providers of health services. The organizational elements of the Estonian health care quality system are summarized in Table 4.

**Table 3** Assessment of the health care quality system in Estonia: policy

	Yes	No
1. The policy is explicit and accessible		
Is formally published	x	
Is systematically disseminated to providers, purchasers, and public		x
Is accessible free of charge	x	
2. The policy is consistent		
With existing and proposed legislation and regulations that it identifies	x	
With public health policy and priorities	x	
With the World Health Organization (WHO) Health for All policy	x	
3. The policy is comprehensive		
Defines the scope of quality and factors that affect it	x	
Identifies and reflects the differing viewpoints of stakeholders	x	
Actively involves consumers in defining and assessing quality		x
Relates to independent, voluntary, and social care, as well as the public sector		x
4. The policy identifies key roles in quality improvement		
Commits government to lead quality improvement by example and to ensure that quality remains visible on every management agenda		x
Identifies the responsibilities and accountabilities of public, private, and professional bodies	x	
5. The policy identifies incentives for quality		
Requires evidence of quality improvement systems as a condition for funding contracts with practitioners, hospitals, and health care organizations		x
Identifies incentives to motivate staff to participate in quality improvement		x

The government's values, vision, and strategies for quality improvement are comprehensive, consistent, and based on evidence and consultation. They are explicitly stated and disseminated to purchasers, providers, and the public.

## Methodology

The methodology aspects of the health care quality system in Estonia are summarized in Table 5. Many statutory mechanisms to ensure the safety of the public, patients, and staff as well as state surveillance are regulated by laws and regulations that are easily accessible to the public. The registration of health professionals takes place once, and obligatory, regular re-registration is not required. In 2002–03, the criteria for voluntary certification and re-certification of health professionals—physicians, nurses, and midwives—were agreed. The voluntary certification process of medical specialists started recently and now covers ~50% of specializations out of 35.

Voluntary quality assessment and improvement programmes are still in the development stage. There is an accreditation system for clinical laboratories, but accreditation programmes for care providers do not exist.

There are also formal mechanisms to define and protect patients' rights set out by several legislative acts (Table 1). Since 1999, surveys on the national level of the population's satisfaction with the accessibility and quality of health services have been carried out each year upon the request of the Estonian Health Insurance Fund [13]. Implementation of the system for complaint management is required by the ministerial regulation; however, a national programme for receiving and analysing complaints about health services is lacking. Still, complaints related to medical aid are handled by the national expert committee on the quality of health care at the Health Care Board (Table 2).

Many health care providers organize periodic surveys to find out their patients' satisfaction and analyse complaints. Also, complications are documented and analysed, and many practice guidelines have been compiled with the purpose of improving professional quality, e.g. for checking a hospital infection and assessing a patient's state before surgery. However, many organizations providing health services have no systematic activities of quality assurance, and there are no data on what extent the data obtained in quality assessments are used for improving the activities. The lack of generally accepted quality indicators poses the main problem, thus making it difficult to compare the quality of the activities of health care providers at the national level.

## Resources

The resources of the health care quality system are summarized in Table 6. The basic education of physicians, nurses, and midwives and the residency of physicians comply with the requirements of the European Union, and the quality of the education is ensured by the accreditation of the curricula. The curricula of prospective physicians and nurses include quality management and quality assurance, which are taught within the course of health care management in the University of Tartu and in two relevant nursing schools. In addition, these have been integrated into education for clinical specialties. Continuous professional education

**Table 4** Assessment of the health care quality system in Estonia: organization

	Yes	No
1. Coordination of quality improvement is clearly defined within the Ministry of Social Affairs		
There is an identified quality unit and a named accountable officer		x
An organizational chart identifies sections within the ministry which contribute to quality improvement and shows relationships between them		x
A published annual report identifies quality activities and quantified improvements in performance of the health care system		x
2. Accountability and mechanisms for implementing quality improvement are defined throughout the health care system		
Quality improvement is explicitly incorporated into national health programmes		x
Implementation of national guidance (e.g. reports, enquires, and ministry/health department advice) is systematically followed up through performance management or independent review in primary, secondary, and tertiary services		x
There is designated leadership, accountability, supervision, monitoring, and communication of quality on subdistrict, district, regional, and national levels <sup>1</sup>	x	x
Quality management structures and mechanisms are integrated within each provider and commissioning organization (e.g. clinical governance, clinical, patient and public satisfaction, audit, performance measurement, and risk management)		x
Accountability for the quality of clinical practice is clearly defined within each provider organization <sup>2</sup>	x	x
3. Support structures, such as agencies, boards, committees, and networks (including non-governmental organizations, teaching and research institutions, and professional groups), are established, published, and accessible nationally		
There is a national quality policy group representing consumers, providers, insurers, and professions		x
There is a national resource centre for technology assessment		x
There is a resource centre for collecting and developing clinical practice guidelines	x	
The dissemination of clinical standards is coordinated nationally to avoid duplication and to ensure that they are coherent, affordable, and cost-effective	x	
There is a resource centre for the collection and dissemination of comprehensive comparative information on health system performance		x
There is a national information and resource centre for quality improvement		x
There are active quality improvement structures identified within each self-regulating clinical profession and specialty <sup>2</sup>	x	x
There is a national society for quality in health care		x

There are effective mechanisms to integrate and implement the national policy within national and local government and between all stakeholders and sectors of health care provision.

<sup>1</sup>This activity is in the development stage and not yet accomplished.

<sup>2</sup>There is not enough information to judge about the comprehensiveness of these aspects.

and training of health care professionals is somewhat more obscure, as there are quite a lot of institutions that train them in Estonia. Professional education and training lacks unified quality standards (also requirements for providers of education), thus making it difficult to assess the quality of education objectively. In addition to medical training, the Tallinn Technical University provides a universal national curriculum for continuous training of quality managers, including those who work in the health system.

Until now, a fair amount of research has been done in the field of quality assurance of health services. However, at present, there is a shortage of coordination in this area, and there is no overview of how the results of those studies were used to improve the quality of health services. Such research would allow for making evidence-based decisions on health

care quality and development of a health strategy, as well as analysing the quality of health information gathered.

The contract between insurance fund and providers identifies the price and volume of clinical activities (with defined quality standards), but until now no separate quality targets. In general, costs for quality activities are not explicitly defined in the budgets of the providers, except the costs for the continuous training of professionals. There are general agreements that oblige employers to enable employees to participate in continuous professional training. Health care providers prepare job descriptions for their employees, such as doctors and nurses, and implement various requirements for various positions involving quality activities. But there is not enough information to evaluate whether medical personnel have time reserved to participate in formal, systematic

**Table 5** Assessment of the health care quality system in Estonia: methodology

	Yes	No
1. Statutory mechanisms to ensure the safety of the public, patients, and staff are established and evaluated. Their regulations, standards, assessment procedures, and results are accessible to the public		
Licensing of health care facilities	x	
Licensing of private health care facilities	x	
Licensing of doctors, dentists, nurses, and allied practitioners	x	
Periodic re-licensing of facilities	x	
With public health policy and priorities	x	
Periodic re-licensing of practitioners <sup>1</sup>		x
Certification of radiation safety	x	
Certification of fire safety	x	
Certification of environmental and occupational safety	x	
Licensing of medical equipment and drugs	x	
2. Voluntary external quality assessment and improvement programmes are recognized by and consistent with statutory investigation and inspection. Their standards, assessment processes, and operations comply with international criteria		
There is a formal mechanism by which voluntary and statutory programmes collaborate towards convergence of standards, assessments, quality improvement, and public accountability		x
The uptake of International Organization for Standardization (ISO) certification and European Foundation for Quality Management (EFQM) assessment in health care, regulated by their formal national bodies, is actively monitored and supported		x
Accreditation programmes are supported in primary, secondary, and tertiary care		x
Accreditation programmes meet international Agenda for Leadership in Programs for Healthcare Accreditation (ALPHA) standards		x
There is a national external quality assurance system for clinical laboratories	x	
There are systematic, confidential national enquires into the occurrence of adverse events and outcomes in health care		x
3. There are formal mechanisms to define and protect the rights of patients and their families to health services		
Patients' rights to high-quality health care are explicitly stated, widely disseminated, and in the language of ethnic minorities	x	
The results of national sample surveys of patient experience and satisfaction with health care have been made public	x	
There is a well-published national programme for receiving and analysing complaints about health services <sup>2</sup>	x	x
4. Local quality programmes are systematically planned and coordinated to meet national priorities and the needs of local stakeholders. They use standards, measures, and improvement techniques that are explicit and known to be effective in that setting <sup>3</sup>	x	x
Population access and system responsiveness to community needs		
Consumers', users', and clients' views and experiences		
Staff welfare, morale, and development		
Staff qualification, knowledge, attitudes, skills, and accountability		
Clinical practice, guidelines, and care pathways		
Service delivery, coordination, continuity, and management		
Risk, health, and safety		
Resource management, efficiency, cost–benefit, and rationing		
Communications, records, and information		

Effective methods for quality improvement are systematically promoted at national and local levels, consistent with experience and scientific evidence. Adoption of demonstrated quality methods is recognized and rewarded in organizations and individuals.

<sup>1</sup>The statutory periodic re-licensing of practitioners in Estonia was replaced with a voluntary certification and re-certification system in 2002.

<sup>2</sup>This activity is in the development stage and not yet accomplished.

<sup>3</sup>There is not enough information to judge about the comprehensiveness of these aspects.

quality improvement programmes, where only some information is available from the voluntary certification (accreditation) programmes (see above).

A number of data about the health service performance are collected, and some studies about the quality of collected data were performed. For the medical staff, the access through

**Table 6** Assessment of the health care quality system in Estonia: resources

	Yes	No
1. Personnel are trained to evaluate and improve the performance of their own work and of their health care organization		
Relevant techniques of quality improvement are incorporated in the curriculum, teaching, and examination of all clinical undergraduates	x	
Performance analysis and improvement are included in the continuing professional development programme provided by all health facilities <sup>1,2</sup>	x	x
Professional colleges, academic centres, and research institutions have an agreed and specified role in supporting the skills and knowledge of personnel in hospitals, clinics, and health centres <sup>1</sup>	x	x
A national curriculum is defined for staff who specialize in the coordination of quality programmes	x	
Responsibility is identified for national integration and provision of training in quality management in all health disciplines		x
2. Personnel have protected time to participate in formal, systematic quality improvement programmes		
Time for quality improvement activity is specified in contracts with employees and with health care purchasers		x
Participation in clinical and organizational peer review is a condition of employment or staff privileges in all health facilities		x
3. Health facilities provide staff with accurate, complete, and timely data by which clinical and organizational performance can be measured		
There is a nationally agreed minimum patient data set	x	
This includes in-patient, outpatient, primary, and preventive care	x	
National standards for data quality are defined and monitored <sup>1</sup>	x	x
Patient administration systems in all facilities are designed to generate indicators, indices, and data for clinical administrative review	x	
Data systems are accessible to clinicians and managers for routine and ad hoc analysis	x	
4. Information on the theory and practice of standards, measurements, and improvement is accessible to all health personnel		
Staff have access to a database of quality experience in their own organizations	x	
Staff have access through publications, library services, or the Internet to national or international resource centres	x	
National quality resources, reference centres, and publications are actively catalogued, signposted, and accessible to intended users across all borders of the nation		x
5. The direct financial costs of the quality programme are realistically identified in advance and allocated to agreed budgets, especially for training, research, and information		
Direct costs of agreed quality programmes are identified in purchaser–provider contracts		x
Service-level agreements identify agreed quality targets as well as price and volume of clinical activities	x	
Local resource allocation mechanisms respond to deficits demonstrated by quality management programmes		x
Central funding of quality initiatives is based on an agreed programme which is publicly accountable		x
Priority is given to research and development to identify and implement incentives and mechanisms which are shown to effect behavioural change <sup>1,2</sup>	x	x

The national programme identifies responsibility for funding and providing the basic knowledge, skills, and information required for quality improvement.

<sup>1</sup>This activity is in the development stage and not yet accomplished.

<sup>2</sup>There is not enough information to judge about the comprehensiveness of these aspects.

library services and the Internet to national and international resource centres is good.

## Discussion

### Progress of quality improvement in Estonian health care system

At present, the Estonian quality improvement system is being developed in a natural way with some guidance. This has lead

to a situation where many quality management tools are applied but instead concentrate on input and less on processes and outcomes. The general approach is concentrated mainly on regulations due to the reform process that took place in the early 1990s and because of the need for restructuring. The implementation of quality improvement programmes and projects has been done without high-level coordination, and there is a lack of commonly agreed quality indicators to monitor the process. However, some important steps have been made, e.g. licensing of providers and health workforce, implementation of quality assurance mechanisms

by the Estonian Health Insurance Fund, development of clinical guidelines, and introduction of the voluntary certification system for medical personnel. Owing to the absence of commonly agreed and accepted quality indicators, it is difficult to judge what the impact of the activities implemented till now has been on the system's improvement or patient outcomes. Still, some studies have demonstrated that patients' satisfaction with health professionals has increased [14,15], and for example, some performance indicators in primary health care were improved [16]. Thus, we conclude that the overall development of the health system and applied methods has had a positive impact on service quality.

Estonia has reached the stage where regulations alone may not be enough to guarantee the quality of health services expected by consumers and providers. Establishing laws or regulations may promote quality activities [17,18]. At the same time, mandatory quality improvement activities, such as the hospital accreditation system in France, may lead to a tendency for establishments to reduce quality processes to no more than the completion of accreditation and to focus efforts on standardizing practices and resolving safety issues to the detriment of organizational development [19]. The law may provide some effective checks and balances for quality, but because of the multifaceted nature of clinical judgement, the limits of the law have to be recognized too [20]. At present, in Estonia, a set of legal requirements for quality improvement have been established, but more attention should be paid to future developments in the health care quality system for the implementation of voluntary quality improvement programmes and projects with a focus on process and outcome quality to move to a more balanced quality improvement system.

During the workshop that took place in December 2004 to review and analyse the quality situation in Estonian health care, all stakeholders recognized a need for improved coordination of quality activities within existing institutions. Most of the stakeholders expected that the Ministry of Social Affairs should make a clear decision about the coordination and financing of the quality activities. It was agreed that the quality strategy should focus on the following activities: at the national level, the quality strategy should define the coordination of quality-related activities and focus on the development of a common system of quality indicators (both at the system and at the individual provider levels), and development of an incentive system for health care providers to deliver a higher level of quality. At the service provider level, motivation and education of health care professionals and involving patients in the process of the provision of health services should be emphasized. Also, the promotion of cooperation between patients' organizations, health care providers, the Estonian Health Insurance Fund, and the Ministry of Social Affairs should be underlined. It would be practical to revise the national quality policy by formulating the overall quality of goals and defining the role and responsibilities of all parties, including patients as consumers of health services. Detailed objectives and action plans could be formulated as a national quality strategy within the overall health care policy framework.

In the current system, some further activities related to quality development are under way. In 2005, the Ministry of Social Affairs prepared the draft of the national health policy, where the quality of health services was defined as one of the priorities. Initiated by the Estonian Society of Family Doctors and supported by the Estonian Health Insurance Fund, a new quality bonus payment mechanism targeting quality, continuity of care, and disease prevention at the primary health care level is under implementation, with the aim of being fully functional in 2007. At each provider level (both primary and hospital care), different schemes such as quality management cycles, standards, satisfaction surveys, and other methods are applied. To improve their management systems, some hospitals have introduced the excellence model of the European Foundation for Quality Management.

The first steps were made in the coordination of quality activities as well. Based on the experience of other countries, these activities are mostly coordinated by several governmental or non-governmental agencies or organizations [21–25]. In Estonia, the first initiative to improve the coordination and promote the cooperation between providers of health services was made by the Estonian Health Insurance Fund, which in 2005 initiated the introduction and implementation of the Performance Assessment Tool for Hospitals (PATH) project. Using a set of commonly defined indicators, this project aims to provide hospitals with tools for performance assessment and quality improvement [26].

### **Strengths and weaknesses of the study instrument**

The tool developed and proposed by WHO is wide ranging, comprehensive, and allows for focusing on different aspects of quality initiatives. By including the criteria to describe the policy, organization, methodology, and resources, this tool clearly displays the strengths and shortages of these areas and indicates the fields that should be developed. Also, these criteria make it feasible to understand the balance between the statutory and voluntary mechanisms for quality assurance and quality improvement.

This tool is appropriate for analysis of the current situation. However, quality improvement is a continuous process, and thus, a more detailed discussion under each criterion is valuable. Using the existing two-point (yes/no) scale, the evaluation of the processes that are initiated but not yet accomplished or not very effective is rather complicated, e.g. the accountability and mechanisms for implementing quality improvement. Also, if the information about the current quality activities is insufficient, one cannot properly judge the presence or absence of this activity. Examples of these situations are summarized in Tables 2–4, where some questions were answered yes and no at the same time. The information collected with this questionnaire could be more valuable if to expand the scale and describe each item as following: (i) yes (action is taking place, there is a process or procedure); (ii) action, process, or procedure is insufficiently developed/not very effective; (iii) no (action, process, and procedure lacking); and (iv) there is not enough information about these items/mechanisms. Using the scale value, which refers to the

shortage of the appropriate information, also helps identify the need for information as well as to promote the dialogue between the stakeholders on how to measure and evaluate the improvement of quality in the long-term perspective.

The study was carried out in 2004, with the aim of mapping the current quality assurance system in Estonia to find the key areas for quality development and propose further actions to improve the performance of the health system in Estonia. Using the tool repeatedly would be a valuable exercise to inform on further policy development and implementation.

This study has three important outcomes. Firstly, the results of this study indicated the strengths and shortages of the present organization of quality activities in Estonia as well as the ways for improvement, where strengthening the coordination with explicit quality monitoring was found as a key factor for improvement. Secondly, it describes the efforts to strengthen the health system with a focus on quality in a country which has gone through rapid reforms during a short period of time. Finally, in using the self-assessment questionnaire proposed by WHO for the evaluation of national quality activities for the first time, this study also provides an opportunity to assess this tool for further refinement.

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