

# Strategic Purchasing and Health System Efficiency: Prospects for Health Sector Reform in Latvia

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*Abstract:* - Strategic purchasing is a significant part of any health policy and health financing reform, which theoretically may have an impact on optimization of cost-effective provision of health care services while simultaneously maximizing population health. The payment model has a direct impact on the delivery of health services. In Latvia, adoption of new purchasing procedures and criteria is one of the challenges that should be faced. The goal of this article is to identify the key determinants of the Latvian university 'tertiary' hospital behavior and, based on the international experience, propose a strategic purchasing model. In the paper, the authors use comparative analysis, empirical analysis, statistical data processing including the deductive and synthesis methods. The main proposals for future reforms and policy include decisions on selective contracting and the role of public and private service providers in the Latvian health care, with redefined access criteria based on population needs rather than historical supply, which aim at ensuring more equal access of providers. To ensure that university, quality service hospitals, are transparently rewarded with the capacity to provide appropriate research and education, re-invest in infrastructure and to reduce negative impact of fund allocation policy on treatment compliance, access and equity. Lessons for health policy reforms include a patient-purchaser interaction model with defined rights for patients and responsibilities for purchasers, a specific financing model to facilitate access to knowledge and provider decision autonomy. Analysis of strategic purchasing in several European counties demonstrates that the countries adopt various approaches thereto. However, there are certain clearly identifiable common tendencies. Various approaches to strategic purchasing used across Europe indicate that reforms should be mainly focused on strengthening purchase ability to respond to consumer needs and establish more Cost-efficient contract with provider.

*Key-Words:* - Strategic purchasing, Health policy, Health financing reforms, Clinical university hospitals, Health service accessibility, Payment model

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## 1 Introduction

According to the Organization for Economic Cooperation and Development (OECD), World Health Organization (WHO) and the World Bank (WB) data [28], the Latvian health care system is underfinanced, which restricts opportunities to make long-term investment in service accessibility and human resource supply. Public financing of the health care sector as a share of GDP in Latvia is one of the lowest among the Baltic countries. In 2018, in Latvia it constituted 3.04 %, in Estonia – 4.9% and in Lithuania – 4.5 %, whereas user fees (*out-of-pocket health expenditure*) in Latvia were the highest in relation to Gross Domestic Product

(GDP) – 2.5 % in Latvia, 1.6 % in Estonia, and 2.3 % in Lithuania [25].

The focus areas of reforms in the Latvian health care system aimed at ensuring public health are defined in "Public Health Guidelines (PHG) 2014-2020" and these include "development of high quality, secure and sustainable health service provision system, providing for the equal access to health services for all Latvian residents" [27]. Kutzin (2013) has defined the notion of Universal Health Coverage (UHC), which pursues the aims in line with PHG. UNH can be defined as providing financial protection from the costs of using health services for all people of a country as well as

enabling them to obtain the health services that they need, where these services should be of sufficient quality to be effective [19].

Supervision and assessment provide foundation for the development of evidence-based policy. They provide for the range of main tools that the stakeholders may use in order to test and improve the quality of policies and programs, their effectiveness and efficiency at various implantation stages, in other words, in order to focus on their results [11]. Given the impact of payment and organization on the cost, quality and equity of health care, evidence-based decision making is as important in the policy and management arena as it is in medicine [18]. Choosing among alternative methods for financing and organizing health care, it is critical for policymakers to have recent evidence on the impact of various payment methods and organizational structures, and, in particular, on how these variables affect cost, quality and equity of health care. It will be important to consider a wide range of strategies used in other countries to contain costs and improve the accessibility and quality of health care through financing mechanisms [20]; [5]; [23].

## 2 Problem Formulation

Holla et al. have discovered that the actual health service accessibility in Latvia is far below than *de jure* envisioned. People do not receive the basic services that might prevent debilitating condition and expensive hospitalization. Although this discrepancy between the range of services to be covered from public funds and the services actually received by the patients may be explained by the patient willingness to use health services, financial accessibility is a likely barrier to the actual service accessibility. People who seek medical treatment and care in Latvia are forced to bear comparatively large expenses, which emerge from service co-financing, small fraction of the compensated medicines and service quotas. That essentially turns service providers who signed agreements with the National Health Service (NHS) into private service providers as soon as the quotas are filled. Such co-financing together with the medical care provided beyond the signed agreements not only makes financial coverage within the existing health care system insufficient, but most likely also promotes deficiency of services and inefficient use of expensive services [15]. It is expected that the health reform will increase efficiency of the health care system in such areas as accessibility of health care: provision of health services on an equal and

transparent basis, and of equal quality to all residents, definition of the role of municipalities in the provision of primary health services, consideration of the issue of insufficient financing and effect of accumulation, which has threatened accessibility of health services, as well as improvement of transparency and efficiency of the industry – adequate application and allocation of the resources that are clear for both benefactor and service receiver.

Policy makers who introduced health policy reforms in the high- and medium-income countries have promoted interest in the issue that strategic purchasing may theoretically contribute to cost-efficient health service provision, simultaneously maximizing population health. In addition, strategic purchasing of health services is widely recommended as a policy instrument [17].

## 3 Strategic purchasing in Latvia

Although in many countries strategic purchasing envisions certain interaction among all stakeholders, the exact organizational structure, payment system and stakeholder relationships remain at the discretion of each particular country [6]. In essence, this is the interaction among service purchasers, the government, service providers, and patients.

Strategic purchasing is much more than just financing of health care. Strategic purchasing envisions assessment and planning of health services provided to the population, selection of suitable service providers with appropriate qualification, stimulation and management of service providers, which would guarantee better performance [31]. In order to improve service performance, the autonomy of service providers, liability mechanism of service providers and purchaser – service provider mandate structure should be ensured [10].

Payment model is one of the factors that has a direct impact on health service provision. In Latvia, health service providers do not have opportunities, means and incentives to provide for an efficient health care system. This results in numerous negative outcomes, such as shortage of health care specialists with specific skills in the regions, difficulties in retaining personnel beyond large city centers, etc. Hospitals lose capacity to provide secure and high-quality services, and that impedes service accessibility. Quotas also frequently limit access to services until quota financing is renewed, thus creating unequal access not related to clinical needs.

Health service selection procedures are organized in accordance with Regulation No 555 of 28 August

2018 “Procedures for organizing and financing health services” [29]. Hospitals are still paid through a combination of “earmarked service programs”, Diagnostic Related Groupings (DRGs) and compensation in accordance with the actual number of bed days [33]. As a result, hospitals performing only simple procedures are paid the same as the hospitals that perform the most complicated procedures, such as those in the tertiary care. Moreover, the paid sum does not depend on the number of acute and non-acute residential care episodes, which causes unequal financing, accessibility problems and limited data for service planning [16].

Strategic purchasing is an approach that allows continuous search for better ways to improve health care system performance, deciding on the services to be bought, providers of these services and the ways these services are bought. Switching to strategic purchasing procedures, the approach that service purchasing is delineated from service quality assessment should also be changed.

The current purchasing of the publicly funded health services in Latvia is characterized as passive; it implies allocation of the previously set budget among the existing service providers, mainly with regard to their compliance with qualification and technical provision requirements [28]. Europe today is characterized by the tendency to move away from passive purchasing (characterized by regulation-based resource allocation, limited options to choose among service providers, restricted quality monitoring) to strategic purchasing (characterized by selective contracting, performance-based payments and emphasis on quality improvement, with an aim to maximize population health indicators with the available resources).

In the World Bank research, Latvia received recommendations to employ strategic purchasing or selection of service providers according to definite criteria to increase application efficiency of the increased financing allocated to health care, to improve service quality, as well as to facilitate competition among health service providers [16].

In 2017, the Latvian National Health Service started working on the strategic selective service contracting according to specific criteria with an aim to promote more cost-effective and performance-focused health service provision. The process applies a set of defined criteria in line with the Regulation on the publicly procured health services. Selected providers receive contracts for a period of one year.

Starting with 2017, providers of the following health services are selected as public contractors:

institutional inpatient planned cancer treatment, outpatient mammography, medical fertilization, positron emission tomography with computed tomography; inpatient, day and outpatient medical rehabilitation services [36].

The following procedure for selection of the planned cancer treatment at the inpatient treatment facility is presented as an example of strategic selection [37].

In the first selection round, compliance of the bidders with the general requirements is assessed according to definite criteria – making sure that a potential service provider does not undergo liquidation, is not party in insolvency or bankruptcy proceedings, does not demonstrate any signs of insolvency or has any outstanding tax liabilities. In the second round, compliance with the special requirements is assessed – place of service provision, localization of definite oncological disease, description of the bidder’s experience, i.e. the number of cancer surgeries performed in the previous calendar year on the patients with definite diagnoses in a definite amount, health care practitioners, who are registered in the Register of Medical Practitioners and Medical Support Staff as professionals in the respective medical field, description of health care practitioner experience in conducting surgeries in the last year by localization according to NOMESCO Classification of Surgical Procedures (NCSP) and precise procedures of providing cancer treatment services.

As a result of service provider selection, agreements on service provision and payment are signed for one year in a three-year period. The quality of services of the qualified providers is evaluated once a year according to the set criteria. Each criterion is presented along with its calculation methodology; as a result, a target indicator indicating acceptable, special mention or unacceptable number of manipulations is obtained.

The 2019 health care system reform [35] envisions introduction of strategic purchasing in the area of rehabilitation services. Medical rehabilitation plays a vital role in retention and recovery of human performance characteristics, as well as mortality reduction. Absence or inaccessibility of rehabilitation increases patient mortality. There is a risk of mortality if the patients timely do not undergo rehabilitation in the first year after acute medical cases [12], for example, cardiac patients (especially after large cardiac surgeries), patients with coronary artery diseases and other cardiovascular diseases, patients after cerebral stroke, head injury, spinal cord injury, neuro-oncological patients, patients with scoliosis and

multiple sclerosis. Persons with polytrauma and extremity amputations, who received rehabilitation immediately after the acute episode, demonstrated significantly improved medical stability compared to the patients who did not receive it [7].

Provision of strategic purchasing of rehabilitation services will widen patient opportunities to receive these services; as a result, patients will face smaller risk of complications and functional limitations. In case patients do not receive medical rehabilitation after serious illness or injury, there is a risk of inability or even mortality. In turn, timely rehabilitation reduces the risk of complications, improves general physical condition and allows patients to return to the labor market.

Considering the accumulated experience, it may be concluded that implementation of strategic purchasing in Latvia is complicated by the following factors:

- Strategic purchasing does not significantly promote efficiency and quality in those categories of services, whose existing capacity is not sufficient;
- Strategic purchasing restricts hospital opportunities to plan investment in the long term (because it is not fully clear which services will remain in strategic purchasing scheme and which assessment criteria will be used);
- Strategic purchasing creates significant administrative load for both NHS and service providers, because the requirements should be raised and service providers should be evaluated.

#### 4 Forms of contract in strategic purchasing and performance management

The Ministry of Health of the Republic of Latvia has envisioned selecting service providers of the planned inpatient cancer services for the adult patients in three largest Latvian cities – Riga, Daugavpils and Liepaja – one in each region of the country. In its research on the Latvian health care system, the OECD pointed out that in order to ensure informal collaboration and make sure small-scale information sharing is sufficient, it is recommended to adopt a more systemic cooperation approach, creating both regional and national cooperation networks [26]. In case of strategic purchasing of other health services, specific regions where services should be provided have been designated.

In Estonia, assessment procedure [22] determines the relative weight of each specific quality indicator; it also specifies how each bidder should evaluate these criteria. Moreover, service providers that use public e-health system receive additional points. If two service providers receive an equal total number of points, the new procedure envisions that the contract is going to be signed with the service provider, who received more points in the quality criteria. Using the previous procedure, service providers had to make a new bid offering lower prices, and the contract was signed with the bidder who offered lower prices. Taking into consideration the Estonian experience and the specifics of the Latvian system, the following assessment criteria system may be recommended for the preliminary strategic purchasing and establishment of contractual relations in the mid-term (Table 1).

Table 1. Criteria for Section of a Health Care Facility and Signing of a Mid-Term Contract on Health Service Provision

Criteria	Weight (max points)	Maximum number of awarded points
Lowest price	10	Price reduction > 10%
Hospital bed occupancy, work load	10	Work load is 90–100% of the optimal work load
Outstanding tax and other mandatory public liabilities	10	No outstanding tax liabilities
Sanctions imposed by the Health Inspection in the previous period, other sanctions for low quality service provision (penalties), <i>NHS activities within control of contractual obligations</i> , received complaints about the quality of a health service, complaints submitted to the Medical Treatment Risk Fund	15	No penalties
Integration in the e- health system, participation in the e-referral	5	Data submitted in the e-

system		health system
Relative number of certified doctors	10	All doctors are certified
Relative number of doctors who work at the inpatient medical facilities	10	> 90% of the doctors work at the inpatient medical facilities
Provision of comprehensive care	10	The agreement covers outpatient and inpatient care
Relative number of practicing doctors who are involved in provision of the service included in the purchasing	10	> 90% have conducted interventions/manipulations (relevant experience has been accumulated)
Share of diagnostic tests and medical procedures	10	Above average

Currently, the service procurement process does not take into account one important criterion – the link between the service provider and the achieved results. It was stated that the doctors working at the health care institutions, who more frequently performed surgeries of a definite kind, reached better results. According to the research on financing of hospital care in Finland, there are considerable differences regarding the efficiency, costs and outcomes at the regional and hospital level, which indicates that there is good potential to improve performance [14].

Therefore, evaluating the process of strategic purchasing in Latvia, such quality criterion as workload of the medical personnel is taken into consideration. In Estonia, (territorial) accessibility of health care is also mentioned as the first criterion performing strategic purchasing, that is, it is possible to ensure provision of high-quality services, if doctors provide a definite minimal amount of services in their service provision area. In Estonia, the minimal workload per territorial unit is defined as the amount of services and the respective number of specialists in full-time equivalent that are necessary for provision of this service. In Estonia, four levels of access were defined for outpatient care specialists in order to guarantee the optimal care provision. These levels are closely related to the complexity of care and morbidity rates [13]. If a larger number of patients with health issues in a definite therapeutic area historically appear in a certain territorial unit, the tender for additional amount of services and the respective number of specialists in full-time equivalent is announced. Both price and quality are assessed at this stage.

The authors believe that service purchasers may face a problem if target indicators are not met in some territorial unit, as it is not clear what the purchasers should do in this case. Therefore, taking into consideration the Estonian experience, it will be necessary to consider the historically established demand by region. Service providers have to decide

on their own on the number of full-time doctor positions and consider whether they will be able to meet contractual obligations, that is, whether they may manage with the existing human resources or they will have to hire new staff. Patients are eligible to freely choose a service provider from the available list of providers, and thus they often prefer not to use health services offered in the vicinity seeking the services of the larger providers located in Riga. They do that mainly for subjective reasons, less frequently for objective reasons; however, they always pursue the same aim – to receive a health service of higher quality. It means that the quality of service provider work should be continuously assessed; it is also necessary to analyze why patients prefer one service provider to another. The agreement should include a commitment to provide a minimum number of health services per year that a hospital or a specialist shall undertake. It should also envision bonuses for high-quality work and penalties for the failure to deliver the defined amount of services. Regarding promotion of cooperation among hospitals, strategic purchasing is a tool that using direct and implicit criteria may motivate hospitals to cooperate.

Clinical algorithms (descriptions of standard activities – algorithms that determine the requirements towards health care institutions with an aim to sustain and improve the quality of health services and patient safety) [21] and clinical pathways (clearly set patient pathways to provide for successful integration and coordination of care at and across various levels) may be used as a basis for signing an agreement between the purchaser and provider of a health service, as they precisely determine possible costs and quality of the provided service. Evaluating the bidders in the purchasing procedure, the providers who have envisioned using care pathways may be given priority. Correctly using care pathways, a service provider may receive financial incentive that may be *ab initio* envisioned by the strategic purchasing agreement.

Service quality may be annually assessed using also other methods – considering the number and essence of “adverse events” that a service provider is committed to report on, patient opinion polling and external audit. Setting of clear standards is aimed at error prevention rather than retrospective penalizing [38].

In order to achieve the intended benefits, the strategic procurement methodology needs to be refined (the state only pays for high quality, high performance and cost effective health services). Evidence shows that the correct use of care pathways is one of the best ways to improve cost-effectiveness and equity of service provision [3]; [40]. Accessibility criterion envisions not only quality but also certain efficiency element.

Efficient achievement of positive results in any therapeutic area depends on the quality system that exists in the industry, which sets general requirements towards health care institutions, the services they provide and quality assurance in general. Comprehensive quality management system implies not only concrete measures to be implemented at a health care institution, but also industry-level measures – availability of clinical guidelines and algorithms, application of the certified medical technologies, its economic assessment for selection of cost-efficient therapeutic methods, integration of economic incentives in health service payments, etc. Behmane and Dūdele [2] emphasize that in Latvia the general health care quality strategy that would comprise the above-mentioned elements has still not been developed. Hence, opportunities to assess efficiency of health services in cancer treatment are limited, as there are no tools to measure therapeutic performance and stimulate efficiency.

## **5 Settlement procedures in strategic purchasing and institutional agreements**

The main objective of health care financing reform is to improve cost-effectiveness of health care funding, introducing new payment mechanisms and promoting competition among health service providers, such as strategic purchasing [16]. Efficient and fair allocation of scarce resources for health care needs in order to meet the demand of wider population for medical services, simultaneously limiting excessive growth of medical costs, is one of the main challenges to be addressed by health care industry management at all levels [42].

Klasa *et al.* have compared common and distinctive characteristics of Cost-Effective Contracting in 10 European countries (Denmark, Estonia, France, Germany, Italy (Veneto), the Netherlands, Slovakia, Spain (Catalonia), Switzerland, the UK (England)). Common features of Cost-Effective Contracting in all countries include performance-based metric and payment systems, contractual transparency and DRG system with small variations. Activity-based financing is used in Denmark, Estonia, Italy (Veneto), Spain (Catalonia), the UK (England), and the Netherlands (large variation in provider payment mechanisms). Other characteristics differ across the countries. In Denmark, negotiations occur at the national level; the centralized price setting is used in case of failure to agree on the negotiated contractual letter. In Estonia, the Quality Bonus Scheme is used to promote prevention and management of chronic diseases; universal contractual terms apply to all providers. In France, minimum contractual regulations are in place in case of failure to agree on the negotiated contractual terms, hospitals receive financing on the case payment basis, payments to physicians are governed by contractual relationships and performance-based payment is linked to public health objectives. In the Netherlands, modernization and innovation activities are subject to separate contracts; this system aims to increase efficiency of care. In Switzerland, federal/cantonal authorities determine fixed tariffs to ensure agreement on the negotiated contractual terms [17].

Health services in Latvia – secondary and tertiary – are financed through “dedicated” service programs, DRG [9]; [32], payment for bed days in the primary and emergency medical care. In essence, DRG classification does not explain all tasks related to treatment of patients in hospitals, but rather general tasks used in the country in the respective disease category. Major part of high DRG costs in the tertiary health care may be easily verifiable due to severity of illness and complications. Therefore, covering health service expenses three main components should be taken into consideration – research, training and “tertiary complexity” [8], where each component should be carefully defined and measured.

The existing health service payment model, namely, dedicated payments and DRG, is suitable for settlement of secondary health service expenses through strategic purchasing, whereas the fixed budget [1] would be more appropriate for financing tertiary health services. It may be a tertiary health service payment model with the fixed budget, where financing is based on payment by results (PbR) [4], and which includes three essential components –

health care, training and research, and signing of short-term payment agreements with the National Health Service, for example, for five years. In essence, it is a mixed health service payment model [41] – dedicated payments, DRG and fixed budget.

Tertiary care hospitals, which in Latvia are mainly clinical university hospitals (CUH), play an immense role in the training of medical personnel and advancement of their qualification. Training and qualification advancement costs comprise three components: instructor costs, student costs and costs related to “inefficiency”, as students are involved in the medical treatment and care activities. In almost all countries including Latvia, tertiary care hospitals receive additional funding for various educational activities. Additional financing, possibly, does not cover all expenses associated with educational activities [39]. This might imply that costs may be covered from health care payments. In order to compensate for such losses, special funding should be envisioned to provide for knowledge, capital costs and provider decision autonomy.

Tertiary health care is a body of highly specialized health services that are provided to a person at a health care institution by one or several members of medical personnel with additional qualification specializing in a certain therapeutic area [34]. In Latvia, inpatient service providers are grouped into five levels, where only Level V hospitals provide tertiary level health services [35]. Level V hospitals are located only in Riga.

The authors assume that selecting the health services to be procured via strategic purchasing the number of “potential” service providers should be considered, especially with regard to the tertiary health care, because only a few providers may render such services in Latvia. In reality, a monopoly may emerge, when health service providers collude among themselves in the short term. The largest health service providers may establish a cartel – a stable long-term agreement among enterprises in one industry; thus, the participants in this agreement agree on health services selling conditions, set prices, etc. [24] Undoubtedly, such collusion is possible, if health service providers have sufficient autonomy from the authority of the Ministry of Health [30] and have an opportunity to set their own price for the rendered service. In Latvia, in contrast to other countries [22], both secondary and tertiary health services are covered through strategic purchasing in the same way as other health services – through “designated” programs and DRG, and payment per bed days. If there are many health service providers in the market (both private and public), they will be interested in offering the lowest

and the highest price in order to get the contract. In this regard, the authors strongly believe that strategic purchasing should be used to purposefully purchase secondary health services, health service providers should be allowed to offer the price at which they would be ready to procure health services.

## 6 Conclusions and suggestions for further research

The current purchasing of publicly covered health services in Latvia is characterized as passive, which means allocation of the previously set budget among the existing service providers, mainly considering the correspondence of a service provider to certain qualification and technical provision requirements. Latvia has started selection of health service providers (strategic purchasing) according to definite criteria, with an aim to increase application efficiency of the financing allocated to health care, improve the quality of services, as well as promote competitiveness among health service providers. The model envisioning selection of health service providers according to definite criteria does not significantly differ from strategic purchasing models employed in other countries; however, in Latvia the characteristics of the strategic purchasing model are significantly influenced by health service organization and financing procedures.

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