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Değer Temelli Sağlık Hizmeti: Türkiye Örneği

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Özet

Sağlık sistemleri, yaşlanan nüfus, artan kronik ve bulaşıcı hastalıklar, ihtiyaçlar, teknolojik yenilikler ve sağlık harcamaları gibi birçok zorlukla karşı karşıyadır. Türkiye de dahil olmak üzere ülkeler, bu zorlukların üstesinden gelmek için çeşitli politikalar üretmektedir ve bu noktada değer temelli sağlık hizmeti kavramı ön plana çıkmaktadır. Bu makalenin temel amacı değer temelli sağlık hizmetini Türkiye örneği çerçevesinde ele almaktır. Bu makale kapsamında, Türkiye sağlık sisteminde değere dayalı sağlık hizmetleri ile ilgili toplamda altı alt başlıktan oluşan açık uçlu bir anket hazırlanmış ve anket sağlık alanındaki kamu kurumları, sağlık politikası uzmanları, sağlık ekonomistleri, akademisyenler ve sağlık alanında çalışan dernekler dahil olmak üzere 12 temsilciye gönderilmiştir. Temsilcilerden gelen yanıtlar bu araştırmanın temel niteliksel materyalini oluşturmaktadır ve bu araştırma Haziran 2020 ile Ağustos 2020 arasında gerçekleştirilmiştir. Değer temelli sağlık hizmetleri kavramının kişi bazlı sağlık sistemleri geliştirmek ve verimli, etkili, sürdürülebilir ve kaliteli hizmet üretebilecek sağlık sistemlerini hayata geçirmek için büyük bir potansiyele sahip olduğu; bu sayede de sağlık sonuçlarını iyileştirebileceğine dair bir kanıya varılmıştır.

Value-Based Healthcare: The Turkish Case

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Abstract

Health systems almost all around the world face many challenges such as the aging population, increasing chronic and infectious diseases, needs, technological innovations and health expenditures. Countries; including Turkey, are looking for a variety of remedies to overcome these challenges and the value-based healthcare concept has come to the forefront in tackling the challenges. The main objective of this article is to reveal the value-based healthcare in general and the Turkish case. In the scope of this article, an open-ended questionnaire consisting of the six subtitles related to value-based health care in the Turkish health system was prepared and the questionnaire was sent to 12 representatives including public institutions, healthcare providers, health economists, academics, experts and other associations from the field of health. Their responses were the main qualitative material of this research and this research was conducted between June 2020 and August 2020. It is believed that the concept of value-based healthcare has a huge potential to develop person-centered health systems that can produce efficient, quality, effective, and sustainable healthcare and thereby improve health outcomes.



Introduction

Nowadays, the production and consumption of health services take place through health systems comprising modern processes and technologies. The health system of a country is a comprehensive system consisting of supply, demand, management, resource, organization, financing, legislation and policies for these components. These functions of a health system serve three main purposes, inter alia: increasing the health status of the population, meeting the expectations of citizens and providing financial protection. However, while performing their functions, health systems face many challenges such as population aging and demographic changes, increasing prevalence of chronic diseases, outbreaks, expectations, rapid technological innovations and as a result of all these, growing health expenditures which put pressure on government budgets. Moreover, it is also a fact that poor performance is a high presence in health systems. To ensure high performance, accountability and transparency in health care, it is significant to identify shared goals that prevent conflict of interests among all stakeholders. Frameworks on the value of drugs, clinical decisions and medical technologies have been developed to help physicians and patients about treatment options and to support payers, providers, managed care organizations and policymakers in making value-based pricing and resource allocation decisions.

Against increasing cost pressures and poor performance caused by all these challenges, politicians and decision-makers face three options: The first option is to increase the number of resources, which is not very sustainable because of scarce resources and alternative uses of these resources. The second option is to narrow the scope of services provided may not be much preferred as this will narrow down the universal coverage and cause unfairness in healthcare. The third option remains, and this is to achieve the best value for all parties, especially for the patients, with scarce resources available. This forms the basis of

the value-based healthcare concept (VBHC) (The Economist Intelligence Unit, 2020).

As can be seen, healthcare systems almost all over the world, including the Turkish healthcare system, face many challenges and are looking for a variety of remedies to overcome these challenges. In this sense, in recent years value-based healthcare concept, inter alia, has come to the forefront in tackling the challenges, producing better health outcomes for patients, and controlling runaway health care costs. It is believed by many policymakers that the transformation towards value-based healthcare will continue and healthcare providers need new models to organize and coordinate care to adapt themselves against this transformation. The reason for this drive towards value-based healthcare is to manage scarce resources and pressures and to ensure clinical and economic efficacy. On the other side, the growing influence of democratic commitments causes to open more room for patient's preferences in health policy decisions. So this movement towards value-based health services carries the potential to design healthcare-service delivery with patientcentered (Elf et al. 2017; Ward et al. 2017).

It is emphasized that most countries are still in the earliest stages of aligning their health systems with the components of VBHC. Many have other priorities such as improving quality and increasing access to basic health services. This is often the case for lower-income and developing countries. However, as is seen in the US, even mature economies may not have all the core components in place for value-based care. However, strong national-level policy support for VBHC can certainly be an advantage. It is highlighted that the richer countries that have this policy support this valuebased systems. For instance, the seven countries with a high-level policy or plan for value-based care, only two—Turkey and Colombia—are developing countries. While the government plays a key role in setting the policy agenda, support for VBHC from other stakeholders—such as private insurers and professional associations—is also

critical. Often, this stakeholder support tends to go hand in hand with the presence of government policy (The Economist Intelligence Unit, 2020; Elf et al. 2017). To gain a better understanding of how countries are progressing towards VBHC, the EIU evaluated alignment with VBHC components in 25 countries. The research is organized around four key components, or domains of VBHC, comprised of a total of 17 qualitative indicators. The study evaluates the presence of the enabling infrastructure, outcomes measurement and payment systems that support value-based care. This report summarises and analyses the findings from the global assessment across the 17 indicators, as well as from research and analysis of the enabling environment—policies, institutions, infrastructure and other support—for VBHC. This article highlights the main findings from the EIU assessment of VBHC alignment in Turkey. The case for Turkey to align its healthcare system with a value-based approach has perhaps never been stronger (The Economist Intelligence Unit, 2020).

In this context, the main objective of this study is to reveal to what extent is Turkey implements a value-based healthcare approach in its healthcare system. The literature on value-based healthcare and value-based healthcare systems have become increasingly important for not only developed countries but also developing countries. Therefore, this article focuses on the question whether the value-based healthcare is appropriate for Turkey and it would like to provide an insight from developing countries like Turkey. It is believed that it is likely to contribute to the existing literature. To realize this objective, we firstly employed Michael E. Porter's value-based healthcare framework and secondly get stakeholders' opinions for the analysis of the Turkish healthcare system. The information and analysis presented in this study are based on a review of the literature and data obtained from secondary sources, including government reports, epidemiological data, academic publications and policy reports. Published and grey literature was identified using international databases, hand and literature searches.

This paper focuses on the relation between the organization, performance, and payment of health services and its achieved outcome i.e. the value-based healthcare approach and its implications in the case of Turkey. In this regard, the remainder of this paper is organized as follows. Section 2 introduces Porter's value-based healthcare framework. Section 3 analyzes the position of the Turkish health system in terms of Porter's model. Finally, Section 4 presents our conclusions.

The Porter's Value-Based Healthcare Framework

In this section, it is presented present Porter's value-based healthcare framework. The concept of value-based healthcare, which has been increasingly being discussed around the world for the last 15 years and applied in some countries, came to the agenda in 2006 with the seminal book titled "Redefining Health Care: Creating Value-Based Competition on Results", written by two eminent scholars from Harvard University, Michael Porter and Elizabeth Teisberg (Porter and Teisberg, 2006). The landmark book is a valuable product of "following 10 years of research into why the health care industry did not conform to the principles of competition seen in all other sectors of the economy. They described how health care had fallen into a pattern of dysfunctional competition where providers were competing on the wrong things at the wrong level. The result was that the US health care system was spending more per citizen on health care than any other nation and getting worse health outcomes in important areas like new-born mortality (Harvard Business School, 2020). The approach of value-based health care delivery is a regulating framework for health system design and an organization that can be applied to any country's system. It is based on the point that the elemental goal of health care is to maximize value for patients and to enhance health outcomes achieved per unit of cost expended. This approach represents a set of general principles about how providers, patients, payers,



employers and government policies can maximize the value that the value is beneficial for not only patients but also the whole health care system.

According to Porter, the main purpose of a health system is to improve the value delivered to patients. In this regard, the concept of value-based healthcare is an approach that aims to maximize the value for patients with an understanding that focuses on "value" rather than "volume" in the production of health services. Value (= outcomes/costs) means getting the best results at the lowest cost. In other words, "value" means the health outcomes achieved that matter to patients relative to the cost of achieving those outcomes Value should always be focused on the patient and the constitution of value for the patient should be rewarded for all other actors within the health care system. It should depend on results rather than inputs; so the measurement of value in health care is depended on the health outcomes that are achieved (Porter, 2010; Kaplan and Porter, 2019).

Porter and Lee note that healthcare systems perform functions mainly supply-driven, that is, within the framework of medical procedures (volume-based) carried out in healthcare providers. They believe that the value-based approach has the potential to deliver significantly improved health outcomes at lower costs compared to what volume-based health systems provide. Therefore, they claimed that healthcare systems should be transformed based on a paradigm shift with a new strategy that requires a transformation from "volume to value". This strategy proposes to

switch from a health delivery system organized around the physicians' actions to a patient-centered system organized around the needs of patients. Value-based healthcare is a strategic framework for restructuring health care systems with the overarching goal of value for patients. In this regard, patients and their informal caregivers must be included to measure health outcomes. The constitution and development of health outcome measures must be standardized to determine more accurate results; however, they should also be sensitive to apprehend each patient's specific conditions and their individual needs and goals. In the general framework, national healthcare systems that plan to establish value-based services must build conducive collaborations in their systems to avoid fragmentation (Porter and Teisberg, 2006; Porter, 2008; 2010; Porter and Lee, 2015; Kaplan and Porter, 2019). As depicted in Figure 1, this strategic framework has six components which they are interdependent, mutually reinforcing, functioning as a system and the influence of one factor often depends on the state of the others. An unfavourable element limits advantageous conditions in other elements. Therefore, value-based healthcare depends on the whole system not only on one element. As can be seen, value-based healthcare positions patients, outcomes and costs to the center rather than volume; in particular, it requires an understanding of restructuring how health care delivery is organized, measured, and reimbursed (Porter and Teisberg, 2006; Porter, 2008; 2010; 2020; Kaplan and Porter, 2019; Porter and Lee, 2015; Porter and Clemens, 2012).

DORGANIZE INTO INTEGRATED PRACTICE UNITS (IPUs)

EXPAND EXCELLENT SERVICES ACROSS GEOGRAPHY

A MEASURE OUTCOMES AND COSTS FOR EVERY PATIENT

6 BUILD AN ENABLING INFORMATION TECHNOLOGY PLATFORM

MOVE TO

BUNDLED PATMENTS FOR

CARE CYCLES

Figure 1: Porter's Value-Based Healthcare Framework

INTEGRATE

CARE DELIVERY

FACILITIES

Source: Porter and Lee (2013)

Different frameworks reflect different conceptions of value and various strategic objectives to measure influencing clinical decision making, informing health care policies, affecting reimbursement and pricing mechanisms or driving industry developments. All these objectives represent different for value-based treatment choices but their different routes derive from the assignment of key responsibilities to different actors within health care: medical professionals, patients, policymakers, payers and medical technology and pharmaceutical companies. As Putera (2017) asserted that "To implement value-based healthcare, transformations need to be done by both health providers and patients: establishing true health outcomes, strengthening primary care, building integrated health systems, implementing appropriate health payment schemes that promote the value and reduce moral hazards, enabling health information technology and creating a policy that fits well with a community" (Putera, 2017).

1. Organize the services needed by patients into integrated practice units (IPUs): Health care delivery involves numerous organizational units that range from hospitals to physicians' practices units. It is organized around patients' medical conditions or segments of the population. The needs of patients are determined by the patient's medical condition, individual demands and goals. With the transformation to move health services towards the value-based organization, the overall objective is to cut higher costs and to achieve higher-quality health services by improving patient safety and cost-efficiency. The value-based approach offers patient-centered care by focusing on the patient's experience of her or his entire cycle of care and it includes individual service activities and interventions and the well-defined outcome measurements. The reorganization of care around patient conditions (or groups of related conditions) into integrated practice units (IPUs), covers the full cycle of care including primary and preventive care; it means that IPUs should serve distinct patient segments. IPUs are based on organized services around the patient and they provide inpatient, outpatient and rehabilitative medical care, patient education and other supporting services. According to Porter, IPUs represent the "whole cycle of care" and they consisted of multidisciplinary teams with responsibility for managing the full care cycle. The system is more than the sum of its parts and the team's finances, involving and feedback on outcomes and costs are also included. The providers involved in care for a medical condition become a true team. IPUs involve physicians and staff dedicated to and possessing expertise in the medical condition. The call for health services based on the patient's and family's needs and expectations has been part of the international agenda in recent decades. The term patient-centered care implies that the care should be based on the patient's perspective and goals and shared decision-making [1, 2]; this approach is regarded as a key quality factor in contemporary healthcare.

2. Measure the outcomes and costs for every patient: The "triple aim" means improved patient experience, improved population health and reduced per capita costs. Recent health reform efforts have also aimed to shift from volume to value to reach these three aims. In this point, Porter also notes that the outcomes and cost should be measured for every patient Health outcome should include both near-term and longer-term health and the whole health circumstances that are most relevant to patients (Porter, 2020). Patient outcomes can be measured by using standardized metrics created by the International Consortium for Health Outcomes Measurement (ICHOM). The value of patients with multiple medical conditions must be measured for each condition to determine specific health conditions, improvements and outcomes. Thus, this approach allows for relevant comparisons among patients' results and providers' ability to care for patients with complex conditions. At this point, it is seen that measuring, reporting and comparing results are the most important steps to make the right decisions to quickly improve results and to

reduce costs. Systematic, meticulous outcome measurement remains rare but an increasing number of comprehensive outcome measurement examples provide evidence of its applicability and effectiveness. Data and measurement ensure the ability to conduct cost-benefit analyses and to establish the adaptation of the value-based health system successfully. Disease registries are also important because they constitute a basement for the creation of patient outcomes data (The Economist Intelligence Unit, 2020).

3. Move to bundled payments for care cycles: The way of paying to healthcare providers affects the volume, efficiency, quality and cost of healthcare. It can be noted that the financing of healthcare providers has been traditionally associated with the volume of services provided or global budgets rather than the long-term consequences for the health of patients or the population. Mechanisms such as the fee for service and capitation are mainly used in healthcare financing. Fee for service pays for the volume of service produced, not considering quality or patient outcomes. In this model, reimbursement is aligned to value and the model suggests that reimbursement models that reward both better outcomes and efficiency of care, such as bundled payments for conditions should be employed (Porter, 2020). However, value-based reimbursement pays service providers, including hospitals and physicians for providing high-quality, cost-effective care that entails positive results (Porter and Teisberg, 2006; Porter, 2008; 2010; 2020; Kaplan and Porter, 2019; Porter and Lee, 2015; Porter and Clemens, 2012). Valuebased payment envisages payment for the costeffective improvement of the health and well-being of the population. This systematic method of paying for care shifts away from pure volume-based payment to payments that incentivize better health, better experience of care, the lower total cost of care per capita. As value-based payment models aim to strengthen the link between health outcomes and payment, they encourage providers to consider social, behavioural and economic factors that influence health. Value-based payment models have the potential to lead to greater collaboration and coordination between service providers, payers and patients. The "bundled payments" come to the forefront as a method of reimbursement for value-based healthcare, which aims to achieve the best outcomes at the lowest cost, to cover all the care services provided to the patient in a certain period. The value-based/bundled payments pay the value created by considering the outcomes, quality and cost, not the volume (Porter and Teisberg, 2006; Porter, 2008; 2010; 2020; Kaplan and Porter, 2019; Porter and Lee, 2015). The payment mechanisms take part at the heart of the value-based healthcare model and they can pave the way for effective treatments that deliver value. On the other hand, they also cause disincentives that are not cost-effective and do not deliver value. Bundled payments can cover end-to-end procedures that mean one payment for all treatments from consultations and the procedure through to rehabilitation but they can be based on the idea of paying for each intervention. There are extraneous mechanisms to regulate resources from treatments, drugs or other interventions that are not cost-effective (The Economist Intelligence Unit, 2020).

4. Systems integration (Integrate the services offered in different facilities): Regional delivery of care organized around matching the correct provider, treatment and setting. Integrate and coordinate care across multi-site care delivery systems (Porter and Teisberg, 2006; Porter, 2008; 2010; 2020; Kaplan and Porter, 2019; Porter and Lee, 2015).

5. Geography of care (Expand geographic reach): National centers of excellence providing care for exceedingly complex patients. Expand or affiliate across geography to reinforce excellence (Porter and Teisberg, 2006; Porter, 2008; 2010; 2020; Kaplan and Porter, 2019; Porter and Lee, 2015).

6. Information technology (Build an enabling IT platform): An information technology system designed to support the major elements of the

agenda. Build an enabling information technology platform (Porter and Teisberg, 2006; Porter, 2008; 2010; 2020; Kaplan and Porter, 2019; Porter and Lee, 2015).

A Value-Based Healthcare System: The Turkish Case Findings

In this section, the Turkish healthcare system's position is explored in terms of Porter's value-based healthcare framework. In doing so, this study is employed e employed two basic tools: the first is Porter's framework for a value-based healthcare system, the second is consult to stakeholder opinions. The main purpose is to determine the situation of the Turkish healthcare system against the principles of VBHC. However, before embarking on the Turkish case, it would be better to brief the Turkish healthcare system in terms of its main elements.

Turkey is a presidential republic, situated at the crossroads of Europe, Asia and the Middle East, and is divided into 81 provinces with 83 million people. Turkey has a well-developed healthcare system, with state-of-the-art medical facilities and highly qualified personnel, as well as quality health coverage schemes. With Turkey's adaptation of a presidential system of governance after a referendum that took place on April 16, 2017; the Presidential policy councils connected to the Presidential Presidency formed by this new system became "decision-makers", while the ministries took responsibility for the implementing units. The nine Presidential policy councils were established to work directly with the President; and the board memberships that are planned to be consisted of at least three members and the President determines one of the board members as vice president. In this framework, the Council of Health and Food Policies under the leadership of the President is appointed to determine and direct health policies and the Ministry of Health is now responsible for the implementation of the country's health policy and the provision of health services across the country. Delivery of healthcare is predominantly the responsibility of public institutions; however the private sector, especially private hospitals and university hospitals are also involved in the service delivery. The MoH is the major provider of hospital care and primary care and the only provider of preventive health services.

Turkey provides universal coverage under its General Health Insurance Scheme (GHI) for all its citizens and residents registered with Social Security Institution. The GHI is financed primarily through social premiums at the county level with some contributions from the general budget. Besides this, out-of-pocket payment and private insurance are also used in the system albeit limited. Through the Health Transformation Program (HTP) implemented from 2003 onwards, Turkey has made relative improvements in the components of its health services. Furthermore, the country is progressing towards achieving the institutional capacity that will allow it to provide high-quality and cost-effective services for not only national but also international health consumers. It can be claimed that Turkey has a legitimate reputation regarding health as in other fields on a global scale (Yıldırım, 2020; Yıldırım and Yıldırım, 2011).

Every country has a unique history and different strengths and weaknesses in terms of health care. However, a set of common challenges have been shared by many national health care systems such as cost-efficiency problem and limited resources. The core principles of the value-based healthcare model provide a framework for how health care providers should organize, deliver and measure care; and establish new roles for patients, employers and the government. Although Turkey has not presented explicit and systematic effort for employing and implementing the concept of value-based healthcare so far, it can be noted that the Turkish healthcare system could create serious values by having policies put forward within the coverage of the HTP. These developments are briefly discussed below.

In this article, based on the literature review, an open-ended questionnaire consisting of these 6 sub-headings about value-based health service in the Turkish health system was prepared and the questionnaire was sent to a total of 12 representatives, including policy-makers, policy-making institutions, health service providers, health economists, academicians and experts specialized in the field of health policy, and related associations. While 9 of the 12 representatives in our sample are from the policy-making institutions and 2 representatives are experts in the field of health economics and management. The one representative is from the non-governmental organization in the health sector. In this context, the views of participating stakeholders on value-based health care in the Turkish health system were revealed by using qualitative research techniques. The purpose of this study, health policymakers on the value-based health services and to evaluate the opinions of relevant experts to Turkey.

1. Organize the services needed by patients into integrated practice units (IPUs)

It was asserted that an IPU consisted of the specialties and services necessary during the full cycle of care for the medical condition is a distinct organizational unit, including side effects, common co-occurrences and complications. It provides some opportunities such as (1) working with primary care and other clinicians; (2) provide access and communication; (3) identify and coordinate patient populations; (4) plan and manage care; (5) track and coordinate care and (6) measure and improve performance. In the case of Turkey, she, which has made significant progress in the health field day by day, is progressing within the framework of its goal of becoming a health hub in its region by having its public and private healthcare providers, well-trained healthcare personnel, high-tech diagnosis and treatment facilities, and city hospitals integrated health campuses built and operated with public-private partnership model which has recently started to be actualized.

In this context, all the participants emphasized that integrated healthcare is essential for a quality healthcare service. Most of the participants think that integrated healthcare enables more efficient healthcare services at lower costs. According to most of the participants, there is no legal and structural obstacle to realizing the service delivery in the most efficient way, considering the structuring of the Turkish health system. Health institutions by the Ministry of Health; it has been defined as first, second and third levels. For the health system to work more effectively; it is predicted that the efficiency of the health system will increase as a result of increasing the efficiency of primary health care service delivery and reducing the burden of secondary and tertiary health service providers. Meanwhile, participants of reimbursement and health information infrastructure in an integrated health care system for the current situation in Turkey has been suggested by most non-compliance with this transformation. It was emphasized that despite all the positive aspects of the family medicine practice, it could not reach the desired level in terms of door-keeping and preventive health services at the expected level.

At this point, the study shows examples of some participants criticized as a referral to the health transformation program in Turkey. For example, one participant showed that the chain referral does not work in the Turkish healthcare system by giving an example from health service usage statistics. 2018 per person in Turkey, according to the Health Statistics Yearbook of the number of applications to secondary and tertiary health institutions is 6,1 time. The total number of outpatient clinics including primary care is 782.515.204 The total number of outpatient clinics was recorded as 497.963.259 only in the second and third levels. It is essential to prevent duplications to ensure efficiency in the use of healthcare services. As observed in the quote below, the respondent emphasized that the presidential government system provides an important opportunity to put into practice a value-based health system.

"Although it accepts the existence of a relationship from the purpose, financing and service delivery stages of health services in our country, it is not possible to say that it is structured in mutual interaction and integration like a human organism. Although the presidential government system provides a good opportunity and environment for a structured relationship, this integration has not been achieved, especially due to the effective initiation of the defined duties of the policy boards" (Expert, E2, Ankara).

2.Measure the outcomes and costs for every patient

For primary and preventive care, the value should be measured for defined patient groups with similar needs. Patient populations from primary and preventive care services might include such as healthy children, healthy adults, patients with a single chronic disease, frail elderly people, patients with mental health illnesses and patients with multiple chronic conditions. As Porter care for a medical condition usually involves multiple specialties and numerous interventions. Value for the patient is created by providers' combined efforts over the full cycle of care (Porter, 2006; 2008; 2010). The benefits of anyone intervention for ultimate outcomes will depend on the effectiveness of other interventions throughout the care cycle. Care outcomes should be measured over the full cycle of care, be multidimensional, and consider complex conditions (Elf et al. 2017). In Turkey, as elsewhere, several components contribute to patient outcomes and values that are important to understand and go beyond costs. Access to highquality data is one element that is crucial to evaluating value in healthcare, for instance, Sweden's pioneering quality health registries and digital health records provide significant opportunities to compile and share real-world evidence (RWE) about health outcomes. Integration and use of those data could offer future benefits in the form of improved diagnosis, therapy, and health. While outcomes measurement, patient-focused care practices, and outcomes-based payment systems are all important in the establishment of a valuebased health system; countries also need an ecosystem of institutional and policy structures that support value-based approaches (The Economist Intelligence Unit, 2020).

Turkey, aiming to offer an efficient, accessible, and quality health care to its citizens, has also determined to improve the quality of health care as an important goal. "Turkey Health Quality System" has been implemented in the framework of the "Quality and Accreditation for Qualified and Effective Health Services" component under the "Health Transformation Program". The system covers all primary, secondary, and tertiary care public and private health institutions and organizations in the country. The purpose of the Quality System in Health is to serve the effective, efficient, timely and equitable health care and to maximize patient and employee safety and patient and employee satisfaction (The Ministry of Health, 2018). Quality standards sets are prepared to increase the service quality in health. Therefore, it is ensured that health service provision is measured, evaluated and improved based on the determined principles and standards. Another factor used for measuring and evaluating the service process and its outputs is health quality indicators. Hospitals in Turkey are monitored continuously in terms of quality standards and indicators to assess the quality of the services they offer.

Turkey's efforts carried out in this area, improvements in access to health services, and changes occurring in the quality of the services offered have attracted attention in the international arena. According to a study published in the Lancet in 2017, Turkey is the second country in the world regarding increasing the "Healthcare Access and Quality Index" between 1990-2015 years (GBD 2015 Healthcare Access and Quality Collaborators, 2017) In another study published in The Lancet in 2018; Turkey also continued its growth in the "Healthcare Access and Quality Index", between 1990 and 2016 and has become the second country with the greatest increase among

the countries in the upper-middle socio-demographic development level (GBD 2015 Healthcare Access and Quality Collaborators, 2018).

In particular, it is thought that it would be more accurate to evaluate the patient results and calculate the benefits of the patients from the health service provided instead of calculating the costs per patient of the medication, medical supplies, and operating expenses in calculating the cost of the service provided to the patient by the majority of the participants. For example, since a patient whose treatment has not been fully applied applies to different health facilities due to the same illness, all his repeated applications increase the costs of the hospital. For this reason, it is thought that it would be correct to start cost measurements by first measuring the benefit provided.

According to a response from public institutions in health financing; Social Security Institution has provided all costs of health care and it has also followed and measured the results of health care services. However, the respondent emphasizes that the measuring of health care cost-results is not an established practice for every patient. Mixed systems that measure not only health outcomes or costs but also measure both parameters should begin to be integrated into reimbursement systems. For example, through alternative reimbursement methods that have been used since 2016, reimbursement can be made according to parameters such as the number of patients, the amount of drug use, and drug expenditure, and the parameters counted on the patient basis can be followed.

On the other hand, according to one of the respondents, it is thought that results and cost measurements should not be used together, it should be "consider the reality". It was emphasized that the measurement of the results is an indispensable element for the development of the quality of the system and it is inevitable for service providers to enter a quality race by measuring the results and making them visible. At this point, reimbursement systems should provide a mechanism

to evaluate and reward these metrics. However, it is thought that the reason why we distinguish cost measurements from the process is entirely due to the reimbursement system specific to our country, and the reimbursement approach, which deals with service unit costs with a classical method, has a negative effect. Undoubtedly, the widespread implementation of a service model that offers the best results at the lowest cost in the ideal system will be the most important factor that will guarantee the sustainability of the system. Another criticism of this issue is the inability of stakeholders to access data. One participant explained this issue as follows:

"Stakeholders cannot access data. Each healthcare provider has its own cost and repayment. Therefore, there is no chance to comment on costs. Likewise, the payments included in the reimbursement system are not based on current cost-based pricing. For this reason, the delivery of some services has been jeopardized. Healthcare providers, especially in the private sector, cannot afford these costs" (Expert, E1, Ankara).

As can be seen, it has been criticized that the only cost-based database is MEDIA and the sharing of this database with the public is quite limited. Also, it is emphasized that the database should have correct and enough information and that a healthy analysis can be done in this way.

It was also stated by a participant that it is not easy or even possible to measure costs and results for each patient within the current structure. It was stated that the concepts of value and quality are ambiguous and open to discussion, so they can't be measurable for each patient.

3. Move to bundled payments for care cycles

Bundled- payment models take advantage of the provider's need to manage a budget and ensure quality. The package-paying organization earns a higher margin if a patient receives less care, but it should also cover the cost of unexpected use and complications. Payers from the public and private sectors in many countries are implementing APMs on the theory that giving financial support to care providers may be more effective than asking patients to take financial risks through the deductible, co-payments and out-of-pocket payments. This payment model rewards quality of care and reduces unnecessary healthcare utilization.

It is also possible to deliver value-based healthcare services to patients on relatively low budgets. For instance, China, Colombia, Mexico and Turkey have a low cost per outcome point and 90-100% of the population of these countries have covered by public or private health insurance. Having health coverage does not necessarily equate to delivering high-quality outcomes at low cost or without asking the patient to pay for it; however, it is an indication that a country is investing in the health of its citizens (The Economist Intelligence Unit, 2020). As of 2018, Turkey allocated 4.4% of its GDP to health expenditures and 77.5% of this expenditure is covered by public resources (TURKSTAT, 2018). In terms of current expenditure, Turkey allocates 4.2% of its GDP, OECD countries %8.8, while the United States is 16.9%. On the one hand, while the health services needed with the current health budget are offered to citizens, on the other hand, the level of out-of-pocket health expenditures is monitored so that patients do not experience financial difficulties due to their health expenditures. In Turkey, needed health services being offered to citizens by using the existing health budget, on the other hand for patients not to experience financial difficulties due to their health expenditures, the level of out-ofpocket healthcare spending is monitored continuously. The proportion of pocket expenditures incurred in the current health spending in OECD countries average 20.5%, this rate is 17.5% in Turkey (OECD, 2019).

In this regard, Turkey has indicated a very good performance in terms of satisfaction level from health services offered to the community as regards the money spent on health care services.

Because while the satisfaction rate of 70% which is the average of the OECD countries can be realized with Purchasing Power Parity (PPP) US \$ 3.857 current expenditure per person; Turkey still carries the same satisfaction rate level (%70) only with PPP US \$ 1,181 Turkey performs same satisfaction rate (70%) for only US \$ 1,181 PPP (TURKSTAT, 2018; OECD, 2019).

In the scope of this article, bundled payment methods stand out as a title supported by all respondents. In the current situation, it is stated that package payment transactions are covering certain periods for some health services and package payments are used in areas such as intensive care services, surgical procedures, physical therapy applications, inpatient psychiatric services with the Health Implementation Communiqué (Sağlık Uygulama Tebliği in Turkish). In the current situation described by the representatives, all care services provided to patients are made over package payments; the contents and costs of the said packages and differences based on health facility types are taken into consideration. Again, it is emphasized by all the respondents that the scope of package payments is very important and should cover all possible complications specific to the severity and course of the disease. Otherwise, it is warned that service delivery will be deficient. Value-based management of package payments requires value-based management of all components such as healthcare, pharmaceuticals, medical devices/supplies and whether it is worth paying for a health output unit.

According to a respondent, it may be beneficial to switch to package payment, but before that, data should be collected and analyzed healthily and system continuity should be in the first place. As the service user-service provider, balance payment points should be determined on both sides and a system should be established accordingly. Another participant stated that the package reimbursement methods applied in our country cover the treatment of each diagnosis, and the application method, which includes applications based

on the same diagnosis for a certain period, does not provide the expected benefit because it does not consider the final improvement. He emphasized that the package payment methodology in the question is a late-stage and the necessary work must be completed to be implemented quickly.

Consequently, it is known that the package payment method for all care services provided to the patient is a method with proven efficiency in many countries around the world. It is thought that this method will be beneficial for patients and public resources in our country. Especially in terms of reimbursement applications, it is thought that the transition to such a system will positively affect the solution of many problems encountered in practice and therefore the effective operation of the entire system.

4. Systems integration (Integrate the services offered in different facilities)

The establishment of value-based healthcare services that provide better health outcomes and patient-centered care will result in increased demands for the healthcare system. Therefore, patients and their informal carers should be involved in developing outcome measures and their outcomes should be integrated within the health system. Health systems that strive to build value-based services should collaborate beyond organizational boundaries to establish open patient trajectories to avoid fragmentation in terms of the provision of health services.

It is thought by all the respondents in this study that as a result of the integration of health services provided in different facilities, costs will decrease, resource loss will be prevented and a more efficient health service will be provided. Some of the respondents also argued that the integration of health service providers in the system prevents resource loss. However, at this point, most of the participants warn that a good health information system infrastructure must be established to do this. Again, according to most of the participants, healthcare providers should be able to see all pa-

tient-based services in the system. One participant from public institutions clearly stated that all data are collected in a database by the General Directorate of Health Information Systems, and the associated service providers can see each other's data.

According to one participant, family medicine and secondary and tertiary care services should be combined under the same institutional roof to establish value-based health services and managed within the understanding of the Health Maintenance Organization. If this structure is implemented, the suggestion will be able to be implemented in all aspects.

All respondents share the view that the relevant stakeholders do not provide full support at the point of implementation, although the legal regulations for another participatory integration system have been completed. As all the participants stated, there is a stratification policy in our country's health system. Effective implementation of the referral system will ensure efficient use of health system resources. It is thought that by integrating health services provided in different facilities, problems such as unnecessary service use will be prevented as well as increasing the quality of healthcare services. Unnecessary procedures will be prevented by clearly determining the roles of health facilities according to their steps, implementing the referral chain practice and ensuring that healthcare workers have access to the treatment history of patients.

5. Geography of care (Expand geographic reach)

Countries that choose to move towards a more patient-centric, value-based model confront forces such as inertia, fragmented systems and the limits of existing healthcare infrastructure and operations. Yet, in many places, political will is strong and policymakers are moving in the direction of a patient-centric approach. These findings will show how the enabling environment and policies differ across countries as well as the varying priorities among those countries. However, it is encouraging to see that Turkey is starting to put

in place some of the elements needed for the adoption of VBHC. The Turkish healthcare system has undergone a tremendous change since 2003 with the purpose of organizing, providing financing for and delivering health services in an effective, productive, and equi¬table way under the HTP (The Ministry of Health, 2003; Yıldırım and Yıldırım, 2011). Therefore, significant improvements have been achieved in many basic health indicators such as increasing life expectancy, reducing maternal and infant mortality, increasing vaccination rates and increasing the satisfaction of citizens with health services. At this point, it can be said that this reform constitutes a patient-centered reform process (Putera, 2017).

It is stated by all the participants that the right to health is one of the social and economic rights guaranteed by the Constitution. According to the participants, making health services accessible to all citizens in need with an equitable approach should be one of the main objectives of an effective health system. However, considering the infrastructural differences between regions in our country by most of the participants, it is thought that this situation will emerge as one of the most important problems in front of a working model. Value-based health services need to be reflected in the entire geography and each health service. For this, it is necessary to establish a value-based pricing and value-based reimbursement system by making economic evaluations of not only pharmaceuticals but also medical devices and health services. As one of the participants, referring to the city hospital model implemented as a new service provision policy in the Turkish health system, emphasized that the city hospital coincides with the policy of health service regions and works in a way to meet the health needs of each region.

"As the population density and sectoral distribution dynamics of the regions and distribution criteria in health service and health workforce planning will be based on an objective basis, the main idea of "value-based health services", effectiveness, efficiency and productivity have also

been achieved. It is thought that the scope of the planned and provided health service (from value-based health) will serve as a facilitator in the "dissemination of excellent services to the whole geography" and its continuity" (Public Institution, P8, Ankara).

6. Information technology (Build an enabling IT platform)

It is stated that it is necessary to use sophisticated data platforms effectively in health to provide high-value maintenance. Platforms associated with electronic health records, insurance and health information exchanges support coordination in primary care and specialist practices. These data platforms can inform population health strategies, such as efforts to access nutritional practices and monitoring patient outcomes. An increasing number of practices will be expected to demonstrate management of population outcome measures, which will be publicly disclosed. Turkey, while many successes in terms of digitization and information technology; developments are not sufficiently developed. Further progress is needed in digitization to assist data connectivity between different healthcare and other public institutions.

All the participants argue that the effective use of information technologies is an indispensable requirement and the prerequisite for the realization of a value-based health system is the establishment of an information technology infrastructure. It is emphasized by most of the respondents that Turkey has advantageous position in terms of information technology. At this point, it was suggested by one of the participants that the MEDULA database system, which is actively used in the current system, could be developed to realize value-based health services.

On the other hand, according to some of the participants, the main problem is thought to be our human resources whose reflexes and responsibilities regarding data entry have not been developed. According to a participant, the capacity should be built to include all stakeholders and to

evaluate the system. While evaluating the system, it is recommended to be evaluated under the roof of an independent and independent organization.

Turkey should determine its priorities and designs the country's health care system in this regard. The Turkish health care system carries out many efforts together such as; highly motivated health workforce equipped with knowledge and skills, quality and accreditation programs applied to provide qualified and effective health services for institutions involved in healthcare delivery, high-tech diagnosis and treatment opportunities, effective information access and information systems that support decision-making processes practices, health promotion and multi-directional health responsibility for building a better and healthier future.

Strong policy support, which helps countries align their health systems more closely with the tenets of VBHC, tends to be found in wealthier countries. Of the seven countries with a high-level policy or plan for VBHC, only two—Turkey and Colombia—are developing countries (The Economist Intelligence Unit, 2020). Proceeding from this point, Turkey is being constantly improving and developing the health care system, will continue their work to add value both to their citizens and humanity. Turkey will be pleased to contribute to improving the global health status by sharing its experience and knowledge with other countries.

Finally, we would like to share with you an important development at the global scale regarding the value-based healthcare systems. As it is well known, The Saudi Arabia G20 Presidency has 3 main priorities regarding health systems namely, improving value in health systems, digital health and patient safety. For the agenda of value-based healthcare, the Health Ministers Declaration supports the establishment of a G20 Global Innovation Hub for Improving Value in Health (the Hub), with a five-year mandate. The Hub, the secretariat to be provided by the Center for Improving Value in Health Ministry of Health (Saudi Arabia), "will enable sharing of best practice and design of new

VBHC approaches that can be used by G20 countries to develop learning health systems and achieve sustainable universal health care". Turkey has been one of the first countries joined the Hub represented by TUSEB Turkish Institute for Health Policies, affiliated with the Ministry of Health (G20 Joint Finance and Health Ministers Meeting, 2020).

Conclusions

In this study, it ise examined the Turkish healthcare system to determine its alignment with the VBHC model. To conduct this research, we first defined value-based healthcare and built a framework of core components of VBHC. For this study, we define value-based healthcare as the creation and operation of a health system that explicitly prioritizes health outcomes that matter to patients relative to the cost of achieving those outcomes. There are 12 in-depth semi-structured interviews in this article that were conducted with representatives of public institutions, healthcare providers, health economists, academics, experts, and other associations from the field of health in between June 2020 and August 2020. Their responses were the main qualitative material of this research.

We believe that the concept of value-based healthcare has a huge potential to develop personcentered health systems which can produce efficiency, quality, patient safety, effective, consumer satisfaction, universal coverage and sustainable healthcare in almost all countries around the world. The value-based healthcare approach is a promising development, although it involves challenges in the area of health services for people living with long-term complex conditions.

We are also aware that value-based healthcare and related issues are still very new issues, there is still a long way to go. It is a long, thin, and demanding process that will take time, patience, and perseverance. On this challenging journey, it is believed that the Hub "will make the best use of members' capabilities and link with relevant existing platforms collaboratively to facilitate sharing

of best practices and lessons learned, expand successful initiatives, design new approaches to improve value in health and enhance cross-learning among participating countries and stakeholders" (G20 Joint Finance and Health Ministers Meeting, 2020).

Both having introduced policies in recent years and been one of the first member countries of the Hub, Turkey is progressing with firm steps towards being an important factor regarding the development of innovative value-based health-care acquis and its implementation. However, to accelerate the process, it is required that the issue should be discussed by all stakeholders, and the information specific to Turkey should be produced regularly. In this sense, this study will make an important contribution to the accumulation of knowledge in the field.

References

Elf M, Flink M, Nilsson M, Tistad M, von Koch L, Ytterberg C. (2017). The case of value-based healthcare for people living with complex long-term conditions. BMC Health Services Research; 17(1):24.

GBD 2015 Healthcare Access and Quality Collaborators. (2017). Healthcare Access and Quality Index based on mortality from causes amenable to personal health care in 195 countries and territories, 1990–2015: a novel analysis from the Global Burden of Disease Study 2015. The Lancet 390 (10091): 231-66.

GBD 2016 Healthcare Access and Quality Collaborators. (2018). Measuring Performance on the Healthcare Access and Quality Index for 195 Countries and Territories and Selected Subnational Locations: A Systematic Analysis from the Global Burden of Disease Study 2016. The Lancet. (391): 2236-2271.

Harvard Business School. (2020). Key Concepts. https://www.isc.hbs.edu/health-care/value-based-health-care/key-concepts/Pages/default.aspx Accessed May 5, 2020 Health Ministerial Declaration of the Summit Joint Statement: G20 Joint Finance and Health Ministers Meeting



http://www.g20.utoronto.ca/2020/2020-g20-finance-health-0917.html Accessed October 18, 2020

Kaplan RS, Porter ME. (2019). The Big Idea: How to Solve the Cost Crisis in Health Care. https://hbr.org/2011/09/how-to-solve-the-cost-crisis-in-health-care, Accessed September 12, 2019

OECD. (2019). Health at a Glance 2019: OECD Indicators, OECD Publishing, Paris.

Porter ME, Teisberg EO. (2006). Redefining competition in health care. Harvard Business Review. 82(6):64-76, 136.

Porter ME. (2010). What is Value in Health Care?. New England Journal of Medicine, 363: 2477-2481.

Porter ME, Lee TH. (2015). Why strategy matters now?. New England Journal of Medicine 30;372(18):1681-4.

Porter, ME. (2008). Value-Based Health Care Delivery. Annals of Surgery 126, 144–150.

Porter, ME., Clemens G. (2012). Redefining German Health Care: Moving to a Value-Based System. Heidelberg: Springer.

Porter ME, Lee TH. (2020). The Strategy That Will Fix Health Care. Harvard Business Review. https://hbr.org/2013/10/the-strategy-that-will-fix-health-care Accessed April 15, 2020

Porter ME. (2020). Value-Based Health Care Delivery: Systems Integration & Growth. VBHC Intensive Seminar Boston, MA January 16, 2020 https://www.isc.hbs.edu/Documents/pdf/2020-system-integration-porter.pdf Accessed May 18, 2020

Putera I. (2017). Redefining Health: Implication for Value-Based Healthcare Reform. Cureus. 2;9(3):e1067.

The Economist Intelligence Unit. (2020). Value Based Healthcare: A Global Assessment. Findings and Methodology. https://perspectives.eiu.com/sites/default/files/EIU_Medtronic_Findings-and-Methodology_1.pdf Accessed February 5, 2020

The Ministry of Health. (2018). Sağlık İstatistikleri Yıllığı 2018. Sağlık Bakanlığı: Ankara.

TURKSTAT. (2018). Sağlık Harcamaları İstatistikleri. TUİK: Ankara. http://www.tuik.gov.tr/PreHaberBultenleri.do?id=30624 Accessed April 20,2020

The Ministry of Health. (2003). Sağlıkta Dönüşüm Programı. Sağlık Bakanlığı: Ankara.

Ward L, Powell RE, Scharf ML, Chapman A, Kavuru M. (2017). Patient-Centered Specialty Practice: Defining the Role of Specialists in Value-Based Health Care. Chest. 151(4):930-935.

Yıldırım HH. (2020). Health Tourism and Anatolian Blessings Medicine: A Strategic Business Model Proposal for Turkey's Branding. Journal of Health Systems and Policies, 2(1): 1-32.

Yıldırım HH., Yıldırım T. (2011). Healthcare Financing Reform in Turkey: Context and Salient Features. Journal of European Social Policy, 21(2): 178-193.