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Potential Effects of the Financial Dimension of Legal Regulations on the Turkish Health System: A Trend and Scenario Analysis Approach

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Abstract This research aims to address the potential financial impacts of legal regulations related to health and social security on the Turkish healthcare system within the framework of health policy and focuses on the end of 2024 and the first quarter of 2025. Calculations regarding the current status of the system were performed using the MS Excel programme, key indicators were evaluated using trend analysis, and premium amnesties and possible situations regarding participation fees were evaluated using scenario analysis. According to the findings, general health insurance covers 99.3% of the population. Bağ-kur member's quantity is exhibiting a fluctuating trend, necessitating the monitoring of premium debts. Over the past decade, the number of physician visits per capita has surged from 8.3 to 11.4, with a nearly 50% increase at the primary level. Current health expenditure is increasing in line with the trend but is below in the years that include the pandemic period. This situation may be linked to the decline in the high-healthcare expenditure elderly population and a decrease in the use of deferrable healthcare services. According to the scenarios, the Social Security Institution may generate revenues of 5% of its budget, while a 2% reduction in current health expenditures may be achieved. Although premium amnesties offer social security to citizens, their continuity may result in a loss of money value and individuals' willingness to pay premiums.

Keywords Health Financing · Health System · Health Policy · Scenario Analysis · Trend Analysis

JEL Classification I18 · H51 · C54

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Healthcare systems are undergoing change worldwide. Traditional structures and attitudes are constantly changing. Thus, the balance of power between political bodies, payers, healthcare providers, and patients is unstable (Weber, 1996:68). In addition, factors such as changing disease structures, the speed of technological change, and increasing expectations of society keep health systems in a constantly evolving and changing dynamic. From this perspective, effective health policies can be developed by analysing the factors affecting health systems and making timely interventions in the necessary areas.

Due to the multidimensional nature of health and the multi-component structure of the system approach, the "internal" and "external" factors affecting health systems, which are the meeting point of these two concepts, should be considered the focus of every change and intervention in this field. A health system has a framework encompassing all activities undertaken by organisations, actors, and resources related to financing, regulation, and health delivery activities whose primary purpose is to directly improve or enhance health (WHO, 2000:5). Roberts et al. (2008), in a detailed review, listed the elements within the health system as follows Özer et al., 2015:4:

- Anyone who provides health services (public-private, traditional-modern, licenced-unlicensed, physicians, nurses, hospitals, clinics, pharmacies, etc.)
- The money that finances healthcare (formal and informal)
- Activities of those who provide specialised inputs to the healthcare process (medical schools, nursing schools, pharmaceutical and medical equipment manufacturers, etc.)
- Institutions responsible for financing institutions, planners, and regulations that control financing sources and influence service providers (ministry of health and finance, social or private insurance institutions)
- Activities of organisations providing preventive services (immunisation, family planning, control of infectious diseases, public, private, etc.).

However, many factors outside the health system can also affect the performance of the system by determining health standards and inequalities (Yıldırım&Yıldırım; 2015:221). These factors are considered external elements of the health system. Each of these elements may have separate and varying effects on health systems. For example, the general education system makes great changes in health, but its defined purpose is education (Uğurluoğlu&Çelik, 2005:13). In this context, it is an external element of the health system, or the existence of effective legal regulation may enable buyers to make better contracts with service providers (Yıldırım&Yıldırım; 2015:221).

This research aims to provide an innovative evaluation within the framework of health policy by examining the financial dimension of legal regulations related to health and social security and their potential effects on the Turkish healthcare system using a trend and scenario analysis approach.

This study was structured into the following four sections: The initial section encapsulates a review of the literature and formulates the scope of the legal regulations of the study; the second section presents the methodology; the third section presents results and discussion; and the fourth section concludes the paper.

Literature Review

Role and Impact of Legal Regulations as a Tool for the Management of Health Systems and Intervention

Developing an analytical framework for health systems under the leadership of the World Health Organization (WHO) is a step in the right direction in the formation of global health policies (Feachem, 2000:715). According to the analytical framework outlined by the WHO, all health systems have goals they are striving to achieve and functions they must perform while reaching these goals (WHO, 2000:23). The three goals and four functions mentioned here can also be considered the cornerstones of managing a healthcare system.

The first goal is to ***improve the health status of the society***. Its second goal is to adequately and fairly meet the expectations and needs of the community it serves. When we consider this concept, known as ***responsiveness***, as a system, it includes the relevant regulations of the authority regulating the health system, legal regulations, institutional relations, public relations, social security and private insurance, and interventions in many areas. The issue of responsiveness in health systems is not only one of the main objectives in the WHO's performance evaluation but also important for meeting public expectations (Durur & Akbulut, 2022:93). The third objective is to ensure ***equity in financing*** and protect households from financial risk. Equitable financing means distributing the risk faced by each household from health care costs according to their ability to pay rather than their disease burden, providing financial protection for everyone in society (Uğurluoğlu&Özgen, 2008:148).

Every health system achieves these goals by providing health services, creating resources, providing financing, and fulfilling management and regulation functions (Mercer et al., 2003:464).

Financing the health system: This is the process of generating revenues, accumulating them in fund pools, allocating resources, and purchasing services.

Providing health services: This function refers to the combination of inputs into a production process that occurs within a specific organisational environment and leads to the delivery of services.

Creating resources: Health systems comprise various sets of assets that produce inputs to service delivery, particularly human resources, physical resources such as facilities and equipment, and information.

Management and regulation: This includes three main components: 1) setting, implementing, and monitoring the rules for the health system; 2) ensuring equal competitive conditions for all participants in the system (especially buyers, providers, and patients); and 3) defining the strategic directions of health systems.

It is understood from the framework drawn here that legal regulations, as the element of determining the rules for health systems, are one of the main elements of both responsiveness and management and regulation and create the appropriate basis for the proper functioning of other functions. It is also a prerequisite for the health system to fulfill its duty in the desired quality and manner (Sargutan, 2005:404).

Current Legal Regulations Regarding the Turkish Healthcare System

A series of recent legal regulations regarding the Turkish healthcare system include changes that could have significant impacts on the financing of healthcare services. When these changes are evaluated in general, they include some regulations regarding payments made to family physicians, the Social Insurance and General Health Insurance (GHI) Law, and the Social Security Institution (SSI) Health Implementation

Communiqué. In addition to these regulations, the amnesties related to GHI debts issued since 2017 have had significant financial implications. The implications of these laws can be evaluated as follows:

- **Regulation Amending the Family Medicine Contract and Payment of the MoH:** In this regulation, an attempt was made to regulate referrals to hospitals and to use primary care more effectively with some financial incentives for physicians and family health workers (Memişoğlu, 2024). These incentive articles are as follows: "If the number of physician applications per person made to public, private, and university hospitals by people registered to the family medicine unit during the year is equal to or less than the number of applications per person made in the same period of the previous year, or if the number of applications per person made to all health institutions and organisations by people registered in the previous 12-month period is less than 7, an incentive payment of 31.5% of the ceiling wage will be made for physicians and 2.5% of the ceiling wage will be made for family health workers."(Sağlık Bakanlığı Aile Hekimliği Sözleşme ve Ödeme Yönetmeliğinde Değişiklik Yapılmasına Dair Yönetmelik, 30.10.2024).

Such practices exist in some developed country health systems. For example, in the Japanese Health System, there is a practice based on the principle of free access; patients can apply directly to the second or third level, but in this case, they pay an additional fee of $45. Additionally, primary care clinics may receive incentives from insurance providers through referrals. When a primary care physician refers patients to a hospital doctor, they receive a referral fee (Kato et al., 2019:175). In this approach, patients and service providers are directed to the next level using incentive mechanisms instead of a mandatory rule. The role of primary care, defined as the "gatekeeper" in the literature, has an important place in this voluntary guidance process.

- **Law on Amendments to the Social Insurance and GHI Law and Certain Laws:** This law amendment included articles such as an increase in co-payment fees for health services and the authority to increase/decrease co-payments depending on referral status at different levels (Sosyal Sigortalar ve Genel Sağlık Sigortası Kanunu ile Bazı Kanunlarda Değişiklik Yapılmasına Dair Kanun, 09.01.2025). Article 9 of the law is critical in terms of financial regulations. The law authorises the SSI to increase the co-payment up to tenfold for secondary and tertiary care services or to reduce it by half for patients referred from a family physician. The co-payment for outpatient physician and dentist examinations has been increased from 2 to 20 TL. Although 20 TL can be considered a limited financial burden on an individual basis in today's financial conditions, its presentation in some media outlets as a "10-fold increase" can create a perception that can create sensitivity in the public (Haber merkezi, 2025).
- **Regulation Amending the SSI Health Implementation Communiqué:** In this circular, the regulations regarding Article 9 of the relevant law enacted on January 15, 2025, are detailed, and it is emphasised that no co-payment will be collected from primary healthcare providers (Sosyal Güvenlik Kurumu Sağlık Uygulama Tebliğinde Değişiklik Yapılmasına Dair Tebliğ, 25.01.2025). The examination co-payment for second- and third-level private healthcare providers is set at 50 TL, whereas the co-payment for the remaining second-level healthcare providers, including various ownership types of training and research hospitals, university hospitals, and state or foundation-owned facilities, is set at 45 TL. Indeed, a new communiqué (Sosyal Güvenlik Kurumu Sağlık Uygulama Tebliğinde Değişiklik Yapılmasına Dair Tebliğ, 23.02.2025) has changed the participation (user contribution) fee rates. The fee for health service providers, which was determined as 45 TL in the previous circular, has been reduced to 20 TL. Additionally, this regulation states that the co-payment to be collected from patients referred to higher-level healthcare facilities by the MoH and contracted family physicians will be reduced by 50%.

Methodology

Within the scope of the research, legal documents related to the financial dimension of the health system were examined. For this purpose, the last quarter of 2024 and the first quarter of 2025 were examined, and the effects of the amnesty on GHI debts issued from 2017 to the present were also evaluated. To analyse the parameters indicated by the documents, the current status of the system was evaluated under the headings of scope, service delivery, and financing, and the necessary calculations were made using the MS Excel package programme. Data for these analyses were obtained from the SSI statistical yearbooks, TÜİK data, and MoH statistics. Data related to key indicators were analysed using trend analysis, while potential impacts related to premium amnesties and co-payments were analysed using scenario analysis. Minitab 21.0 was used for the trend analysis, and MS Excel was used for the scenario analysis.

Trend analysis is considered a form of comparative analysis that looks at current trends to predict what might happen in the future (Atan et al., 2019:33). The point of comparison here is the base year. It is stated in the literature that 7-10 years of historical data is required for trend analysis (Akgül, 1994). In our research, we tried to include the oldest available data and keep the trend long.

Scenario analysis is a strategic planning tool used to explore possible future outcomes by creating and analysing multiple scenarios based on different assumptions and variables. Widely used in crisis management and policy planning (Zanoli et al., 2001).

Results and Discussion

Evaluation of the scope, service utilisation, and healthcare expenditures of the Turkish healthcare system within the framework of legal regulations

Law No. 5510 on GHI, which came into force in Türkiye in 2012, is mandatory (Sosyal Sigortalar ve Genel Sağlık Sigortası Kanunu, 31.05.2006). Therefore, all Turkish citizens residing in Türkiye must be covered by GHI within the framework of the relevant law. In this context, long-term insured groups have reached a total of 75.878.000 people as of 2023. This group includes employees belonging to groups 4-a (insured employees affiliated with an employer), 4-b (Bağ-kur/independent employees), and 4-c (civil servants). In addition, when the group that pays its own premium within the scope of GHI and the group whose premium is paid by the state are included, there are 84,809.62 people entitled to GHI in Türkiye according to the indicators for 2023. Approximately 99.3% of the population is under the umbrella of GHI, which indicates that the coverage width of social health insurance is quite high. Table 1 presents data on GHI entitlement in Türkiye by year.

Table 1

Scope of GHI in Türkiye by Year

Year	Türkiye's population	Total GHI beneficiaries	SSI Coverage*	Those registered under GHI **	Number of out-of-scopes	Coverage rate (%)
2023	85.372.377	84.809.626	75.878.808	8.930.818	562.751	99,3
2022	85.279.553	84.617.643	75.529.600	9.088.043	661.910	99,2
2021	84680273	83.697.174	74.126.902	9.570.272	983.099	98,8
2020	83614362	82.361.172	72.593.383	9.767.789	1.253.190	98,5
2019	83154997	82.178.288	70.704.680	11.473.608	976.709	98,8
2018	82003882	80.781.590	70.196.504	10.585.086	1.222.292	98,5
2017	80810525	80.188.748	70.363.479	9.825.269	621.777	99,2
2016	79814871	78.402.115	68.212.646	10.189.469	1.412.756	98,2

Notes: *Includes the number of active, passive, dependent, and special fund members in the table. **It includes those who pay their own premiums and those paid by the state. **Source:** Compiled from TÜİK data and SSI statistical yearbooks.

In addition to those who are insured due to their work, access to health services is also guaranteed for those whose GHI premiums are paid by themselves or the state (Table 2). The state pays the premiums of 70% of this group. These individuals are either those who passed the income test (a group that can be considered poor) or belong to one of the groups protected by the state. The remaining 30% are those who are not covered by long-term insurance or whose financial situation is deemed sufficient to pay their own premiums but did not pass the income test. Notably, the approximately 70% government and 30% private payment ratio for this group has remained the same over the years.

Table 2

Distribution of the Groups Paying Their Own GHI Premium by Year

Year	Those who pay their own GHI premiums	Share %	Those whose GHI premiums are paid by the state	Share %
2023	2.082.614	30	6.848.204	70
2022	2.143.602	31	6.944.441	69
2021	2.120.790	28	7.449.482	72
2020	1.941.961	25	7.825.828	75
2019	2.393.087	26	9.080.521	74
2018	2.322.684	28	8.262.402	72
2017	1.889.260	24	7.936.009	76
2016	2.679.737	36	7.509.732	64

Source: Compiled from the SSI statistical yearbooks.

While regular monitoring of premiums is ensured in groups 4-a and 4-c, where control mechanisms are effective, the risk of premium debt is observed to be higher in group 4-b. Yücel & Hayta (2020) draw attention to this situation and point out that the biggest problem in the system is that participation is voluntary; therefore, independent workers prefer to remain outside the health system rather than pay premiums. Although there has not been a legislative change, various amnesties have been granted for GHI premium debts through presidential decrees and laws since 2017 (Cumhurbaşkanlığı Kararı, 17.01.2025; Bazı Alacakların Yeniden Yapılandırılması ile Bazı Kanunlarda Değişiklik Yapılmasına İlişkin Kanun, 09.06.2021). While these amnesties allow citizens covered by the GHI to regain access to healthcare by writing off accumulated premium debts/late interest, the impact of these practices on healthcare financing is a subject of debate.

Table 3 shows the number of insured persons in Group 4-b and their active-passive distribution by years. Individuals in the active group pay premiums, whereas those in the dependent group do not pay premiums but are individuals like spouses and children who benefit from GHI through the active person. The ratio of active to dependent groups, such as 75%–25%, remains almost constant over the years, indicating that an employee can benefit three other people besides themselves from the GHI by paying premiums. This ratio needs to be discussed in terms of financial sustainability.

Table 3

Those with Possible Premium Debts by Year (4-b)

Year	4-b (active)	Share in total (%)	4-b (dependent)	Share in total (%)	Total
2023	3.100.834	24	9.764.966	76	12.865.800
2022	3.252.606	25	9.920.116	75	13.172.722
2021	3.156.734	25	9.706.009	75	12.862.754
2020	2.845.310	23	9.656.246	77	12.501.556
2019	2.888.154	23	9.742.341	77	12.630.495
2018	2.984.780	23	9.872.300	77	12.857.080
2017	2.923.994	24	9.375.821	76	12.299.815
2016	2.794.132	24	9.008.655	76	11.802.787

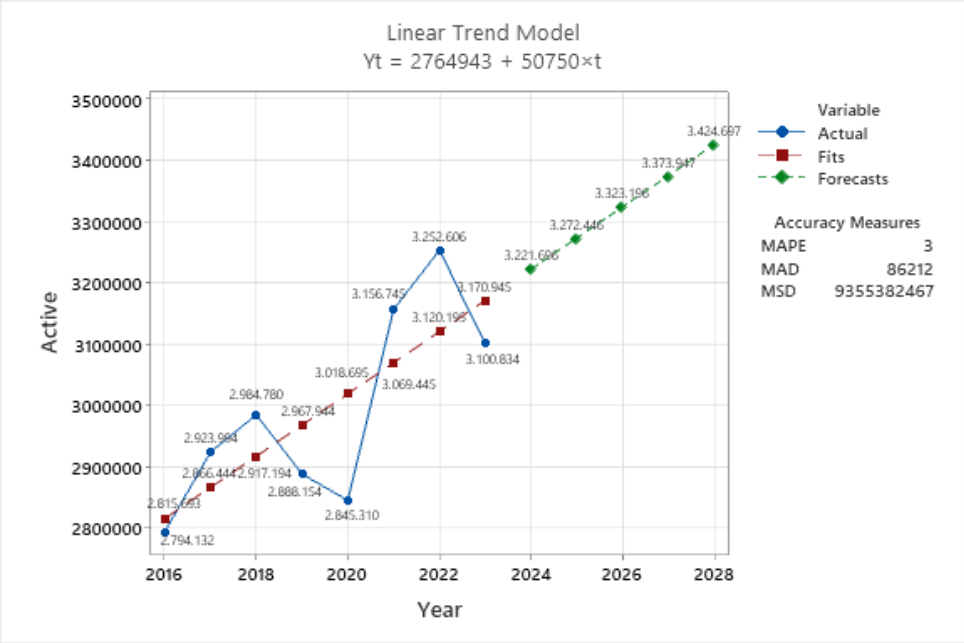
Note: Mukhtars were removed. **Source:** Compiled from the SSI statistical yearbooks.

A trend analysis was conducted to establish a basis for the discussion on the notable active/passive balance (approximately 25%/75%) and financial sustainability in Group 4-b. Figure 1 presents a trend analysis of the number of active insured persons in category 4-b. The base year (2016) was taken as 100, and the years after the specified date were analysed as a percentage value compared to the base year. The prediction is 97% accurate and is based on this finding. According to the analysis, the number of active 4-b insured individuals will increase in the coming years. It is thought that the fluctuations in the number of active insured people in previous years may be due to the tax amnesties granted to this segment. In the years 2017, 2018, 2021, and 2022, when the amnesties covering the GHI debt were issued, the number of active insured individuals peaked above the trend. Even though amnesty was only granted in 2023, it fell below the trend. The possibility of this number falling further in 2024 should be monitored, as the expectation of another amnesty in 2025 may make individuals less willing to pay premiums. Studies also reveal that tax amnesties affect citizens' behaviour through psychological and social factors, and perceptions of justice and fairness also affect their willingness to comply with tax obligations after the amnesty period (Rechberger et al. 2010; Yücedoğru&Sarısoy, 2020).

In addition, presidential amnesty decrees that enable debtors to benefit from healthcare services may also be effective. These decrees allow 4-b insured individuals and their dependents to benefit from healthcare services even if they have more than 60 days of premium debt.

Figure 1

4-b Trend Analysis of Active Insureds



***** MAPE expresses accuracy as a percentage of the error. A MAPE average of 3 means that the prediction is wrong by 3% (Minitab, 2025). In the modelled trend, the actual (blue colour) represents the current data and the fit value (red colour) represents the prediction. **Source:** It is plotted according to the indices calculated by the authors.

The most basic data regarding the use of health services can be taken aas the average number of physician visits per person (ANPV). In Türkiye, ANPV has increased over the years and will reach 11.4 in 2023. Although rates in private and university hospitals remain generally stable, a significant increase is observed in hospitals affiliated with the MoH and in primary care services. The PVPC per capita increased from 2.8 in 2014 to 4.9 in 2023 in the primary care setting (Table 4). Therefore, it can be concluded that access to primary health care improved.

Table 4

Health Services Use by Year (Average and Number of Physician Visits)

Year	ANPV, Türkiye	ANPV, Primary care	ANPV, MoH	ANPV, University	ANPV, Private	Number of family physician applications	TEN MoH	TEN University	TEN Private
2023	11,4	4,9	5	0,5	0,8	416.806.846	424.550.715	45.534.172	67.440.929
2022	10	4	4,5	0,5	1	332.907.540	375.842.437	45.746.880	74.777.721
2021	8,4	2,9	3,6	0,5	1,2	239.053.780	304.005.482	40.119.022	69.311.124
2020	7,2	3	3,2	0,4	0,6	247.273.830	239.981.861	31.752.506	60.906.243
2019	9,8	3,5	4,7	0,5	1,1	288.104.693	387.862.387	44.306.071	72.378.180
2018	9,5	3,3	4,4	0,5	1,3	284.632.567	370.204.764	40.656.139	74.208.065
2017	9,3	3,3	4,3	0,5	1,2	282.098.221	353.703.814	38.636.933	71.208.056
2016	8,6	2,7	3,8	0,4	1,7	205.549.931	316.334.530	34.364.359	71.147.044
2015	8,4	2,7	3,2	0,5	2	208.538.951	306.825.524	34.539.633	77.217.044
2014	8,3	2,8	3,8	0,4	0,9	214.120.750	292.100.331	32.143.903	72.323.383

Note: ANPV: The average number of physician visits per person. **TEN:** Total examination number. **Source:** Compiled from the statistical yearbooks of the MoH.

In 2023, health expenditures, excluding investment expenditures, are projected to total 1 trillion 134 billion TL. When inflation adjustment was made to these expenditures, the difference between the years decreased, but there was a significant increase in 2023 (Table 5). This situation was evaluated using trend analysis.

Table 5

Current Health Expenditures in Türkiye by Year

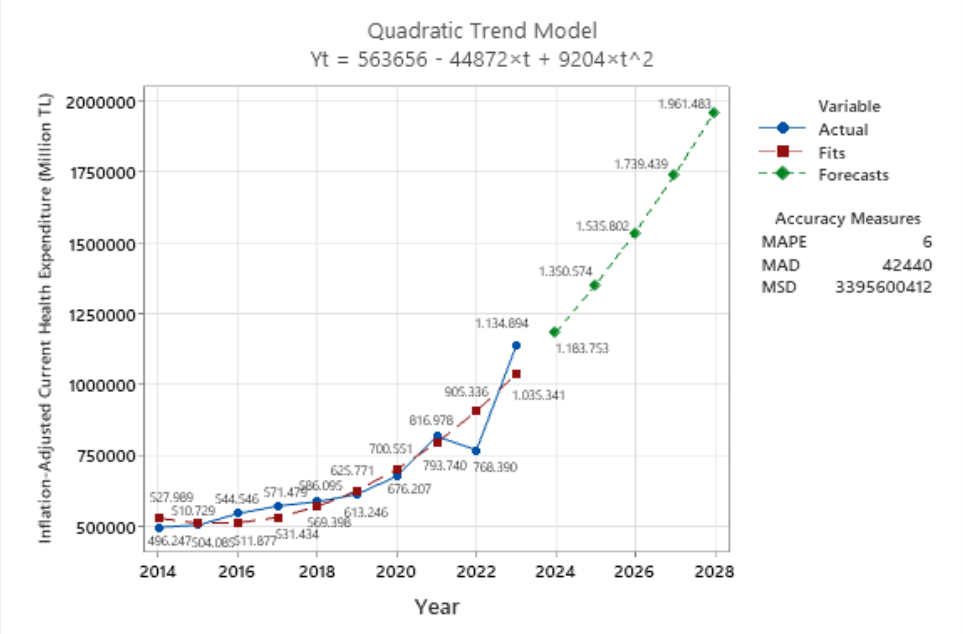
Year	Current Health Expenditure (Million TL)	Inflation-Adjusted Current Health Expenditure (Million TL)
2023	1.134.894	1.134.894
2022	555.944	768.390
2021	330.928	816.978
2020	233.062	676.207
2019	187.673	613.246
2018	154.998	586.095
2017	130.981	571.479
2016	112.540	544.546
2015	96.786	504.085
2014	88.878	496.247

Source: Compiled from TÜİK Health Expenditure Statistics.

Figure 2 presents an analysis of the current health expenditures adjusted for inflation since 2014, which is consistent with the trend. In this analysis, health expenditures were below the trend between 2021 and 2022, which included the pandemic period, but rose above the trend for the first time in 2023. The fact that expenditures made during the pandemic began to be paid through borrowing, the opening of city hospitals, and changes in budget items may have caused a break above the trend in healthcare service expenditures in 2023 (SGK, 2020). The decline in 2022 may be associated with the deaths of the elderly population in the high-spending group during the pandemic and the decrease in the use of deferrable health services.

Figure 2

Trend Analysis of Inflation-adjusted Current Health Expenditures in Türkiye



Source: It is plotted according to the indices calculated by the authors.

The changes introduced by the regulations outlined in this section will impact the health system's financial balance. Below, the potential financial and policy implications of these regulations are assessed within the framework of four scenarios:

Scenario where Premium Amnesty Is Not Applied

If there had not been a presidential amnesty regarding the limitation of healthcare services for 4-b insured individuals with SSI premium debts exceeding 60 days;

There are no up-to-date and definitive data available to the public regarding the number of people with primary debt. However, some information from past years can provide a general idea of the number of premium debtors. For example, **2,248,894 people** applied for the restructuring of their SSI premium debts in 2021 under Law No. 7256 (SGK Gündem, 2021). While the proportion of active premium payers remained constant at 25% in previous years, the proportion of dependents benefiting from services related to these individuals is 75%.

- With an average and optimistic approach, it is estimated that **1,000,000** active people have premium debts in the annual model, and **3,000,000** more people benefit from health services. Thus, while a total of 4,000,000 people were spending on health care, it was predicted that these premiums were either not collected on time or were forgiven.
- In this scenario, the additional revenues that the SSI could generate were calculated based on 2023 data, and when the expenditures of these 4 million people were multiplied by approximately 6,178 TL (SSI's per capita health expenditure), the potential return to the SSI could be approximately 24.7 billion TL. SSI's per capita health expenditure was found using the 2023 total SSI health expenditure/GHI beneficiary formula (=523,982,000,000/84,809,626).

This amount indicates a significant source of funding that was forgone due to the premium amnesty. However, this theoretical revenue forecast is not expected to be fully realised. A significant portion of the group covered by the premium forgiveness and their dependents are individuals with high vulnerability who could be harmed if they cannot access healthcare services. However, children under 18 and individuals over 65 (the potential retired group or the state pays the premiums within the scope of Article (60/c-3) of the GHI Law) in this group are protected by the state by being covered by GHI, even if the active insured person has a premium debt. Therefore, the removal of premium amnesty may create additional financial resources for the Social Security Institution and may not significantly affect vulnerable groups at this stage. However, before such a decision is implemented, it is important to carefully evaluate whether this group's access to healthcare should not be restricted to ensure continuity of access to healthcare.

Scenario Regarding the Co-payment Income Received from Direct Applications to the Hospital

In the second scenario, the co-payment revenues that the Social Security Institution would receive if patients applied directly to secondary or tertiary healthcare institutions without visiting their family physician were evaluated. Currently, patients can only be referred to secondary and tertiary hospitals affiliated with the MoH through their family physicians; there is no referral system to university and private hospitals. However, due to the right to direct application, patients can turn to these health institutions.

In this context, an analysis was conducted based on 2023 data, and a revenue forecast was created based on applications for the MoH, university, and private hospitals. According to the scenario, it is assumed that 80% of the applications to secondary and tertiary health services are made directly. In accordance with the latest changes in legislation, the examination participation fee has been set at 20 TL for MoH and university

hospitals and 50 TL for private hospitals. Accordingly, a 2025 estimate has been made based on the 2023 number of physician visits (NoPV) and is presented in Table 6.

Table 6

Potential Impact of Direct User Contributions on SSI Revenue

Year	MoH 2nd and 3rd-level direct application (TL) (if 80% of the applications are made this way)	University direct application (TL)	Private direct application (TL)	Total (TL)
2025	6.792.811.440	910.683.440	3.372.046.450	11.075.541.330

***** The 2025 participation fee effect assumes that the 2023 examination numbers would have remained the same. Formulation = NoPV*%80 X Participation fee, 2023 NoPV = MoH: 424.550.715, University: 45.534.172, Private: 67.440.929

When these three revenue items are combined, a total potential revenue of approximately **11 billion** 75 million TL emerges for the SSI. The 2025 budget of the SSI is 760 billion 999 million 628 thousand TL (Işıkhan, 2024). The point to note here is that in the current system, the distinction between second- and third-level applications to MoH hospitals is not reflected in the official data. If a policy change is planned in the future, the data need to be parsed and updated. Notably, the rate of direct applications is high due to the lack of a referral system to university and private hospitals, but this may change in the future.

Scenario Regarding the Effect of the Decrease in Co-payment in Referred Applications

In the third scenario, patients referred from primary care and admitted to the hospital were considered. According to the current regulation, the co-payment for patients who come to hospitals affiliated with the MoH upon referral from their family physicians is reduced by 50% and is applied to 10 TL instead of 20 TL. Because there is no referral system for university and private hospitals, this application is only valid for MoH hospitals at this stage. However, as in the UK example (including private hospitals), there may be a transition to such practices in the future (NHS, 2025). However, there must be statistics for tracking and payment design of these referrals that may be made to different groups of hospitals in the future. Currently, the MoH combines the data for the 2nd and 3rd level hospitals belonging to them.

In the applied scenario, it is assumed that 20% of the patients are referred to hospitals by their family physicians. In this case, the income that SSI will obtain from referred patients is calculated as approximately **849 million TL** (Table 7).

Table 7

Possible Impact of Reduced User Contributions on SSI Revenue

Year	Application to the MoH with referral	Application to the university with referral	Application to private with referral	Total (TL)
2025	849.101.430	-	-	849.101.430

***** Formulation = Number of examinations (2023) X 20/100 * participation fee= 424.550.715X20/100*10 TL.

Scenario for Ensuring the More Effective Use of Primary Care

The final scenario addresses the impact of the primary care referral system on the use of upper healthcare services (Decreasing use of upper-level services). Systematic reviews in the literature show that when user fees are introduced, there is a 10%–30% decrease in both preventive and curative health services (Lagarde and Palmer, 2011). Although it varies depending on the country's healthcare system, an analysis was conducted based on these rates.

Table 8 presents the calculations for the fourth scenario analysis. Currently, Türkiye has a population of 84 million, and primary health care is provided free of charge to all individuals, regardless of whether they have no insurance. When health expenditures are examined, the health expenditure per capita in 2024,

excluding primary care, is calculated as 12,297 TL, and the total health expenditure is 1 trillion 134 billion TL. Considering these data, two scenarios regarding a possible decrease in upper-level health services are discussed:

1. **According to the pessimistic scenario**, if there is a **10% decrease** in health service use, the total health expenditure will decrease to 1 trillion 10 billion TL and approximately 124 billion TL can be saved.
2. **According to the optimistic scenario**, if there is a **30% decrease** in health service use, the total health expenditure will decrease to 801 billion TL, and approximately 333 billion TL will be saved.

The potential impact of reducing the use of upper-level health services due to family physician referral on current health expenditures can be estimated between 124,272,479,035 and 332,851,283,694 TL (average = 228,561,881,365 TL).

Table 8

Possible Impact of Reduced User Contributions through Referral on Current Health Expenditures

Scenarios	CURRENT SITUATION				Difference
	Benefiting from higher-level health services (based on the number of GHI beneficiaries)	Health expenditure per capita excluding primary care (based on 2023) **	Total primary health care expenditure (outpatient services + public health programmes)	Total current health expenditure (TL)	
	84.809.626	12.297	72.016.900.000	1.134.894.000.000	0
Pessimistic (10% decrease)	76.328.663	12.297	72.016.900.000	1.010.621.520.965	124.272.479.035
Optimistic (30% decrease)	59.366.738	12.297	72.016.900.000	802.042.716.306	332.851.283.694

****** An approximate estimate was made using the formula for total primary health care expenditure (outpatient services + public health programs)/population = 2,245.12 TL.

However, it should be considered that this saving will not be reflected as a direct gain in the state budget. For 2023, approximately 75% of these expenditures were covered by the general government budget, and the SSI's share in this budget is 46%. Therefore, even if the expenditure on hospitals decreases, the state will reintegrate this budget into the system in different ways. For example, increasing unit prices, increasing indirect investments, or introducing new expenditure items for healthcare services can balance the budget. Consequently, it is necessary to evaluate this scenario not only in terms of financial savings but also in terms of using health resources more efficiently and sustainably. In other words, the real gain is not financial savings but more effective management of resources and better planning of health services.

Conclusion

This study evaluates the status of the health system, analyses trends of key indicators, and explores hypothetical scenarios that evaluate what the potential outcomes might have been under alternative conditions, thereby revealing the financial and operational effects of different policy choices. By adopting this approach, the research offers a nuanced perspective on the intersection of health policy and financial management within the Turkish healthcare system. The research methodology and approach are thought to be innovative and will likely inform future studies that will examine the impact of legal regulations on the health care system. The evaluations made in this research show that current legal regulations have significant and multifaceted financial impacts on the Turkish healthcare system. To manage these effects and ensure the sustainability of the health system, some implications and recommendations can be presented from a health policy perspective.

While the frequent repetition of GHI premium debt amnesties again provides citizens with social security opportunities, the continuity of the practice may have negative effects on the timely collection of premium debts and the evaluation of the final return. The striking active/passive balance (approximately one active insured person financing three dependents) of Bağ-Kur members, where participation is voluntary, and the fluctuations in the trend of the number of premium-paying members are causing discussions about financial sustainability. Additionally, premium amnesties can undermine the trust of individuals who pay on time in the system, leading to a decrease in their willingness to pay premiums. The decline in citizens' willingness to pay, coupled with the loss of money value due to premium amnesty, may impact the possible benefits from alternative costs. Therefore, frequent political changes that create obstacles to the development of predictable and sustainable policies and are made for political reasons may threaten the viability and stability of the system in the medium and long term.

Considering that the 2025 budget of the SSI is 760 billion 999 million 628 thousand TL, a potential revenue of approximately 37 billion TL (approximately 5%) that can be obtained from the first three scenarios is an amount that should be considered. The final scenario estimates the potential impact of the reduced use of upper-level healthcare services due to family physician referrals on current healthcare expenditures to be around 229 billion TL. This amount corresponds to 2% of the current health expenditures for 2023. In this regard, it is important to evaluate these scenarios.

In the MoH's first communication regarding participation fees, there was a difference in participation between the second and third levels. However, these differences in service use data for hospitals belonging to the MoH are not present in the annual health statistics. Statistics should be compiled with this difference in mind.

Effective operation of the referral system can strengthen trust and communication between family physicians and patients, ensuring that patients remain loyal to their family physicians. If, in practice, the patient first consults their family physician, makes an appointment at a MoH hospital, is referred to a higher level of care, and then returns to their family physician, the physician can advocate for the patient because they are following the process. Thus, professional training also contributes to the family physician's future assessments in the referral process. This process is not limited to cross-sectional measurement, such as patient satisfaction; it also allows for the measurement of patient experience by revealing the patient's journey from appointment, examination, and treatment to post-discharge.

This assessment of the financial dimension of current legal regulations attempts to highlight both the opportunities and risks related to the Turkish healthcare system. The current changes, with proper planning and implementation, can contribute to the sustainability of the healthcare system and allow for more effective management of expenditures. In the design of health policies, the principles of equity, accessibility, and long-term sustainability should be observed, and health expenditures should be planned in a way that protects the financial balance.

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