

Review

The Swedish Healthcare System from a Turkish Perspective: Universal Health Coverage and Comparative Analysis

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ARTICLE INFO

Article history:

Submitted July 20, 2025

Received

in revised form August 1,

2025 Last revision

received form August 6, 2025

Accepted August 10, 2024

Publication date September 8

Keywords:

Healthcare Management

Healthcare Systems

Healthcare Systems Comparison

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0009-0001-5071-0620

ABSTRACT

This article provides a comprehensive analysis of the Swedish healthcare system from a Turkish perspective, focusing on its structure, financing, public health policies, and comparative health indicators. Sweden's decentralized healthcare model, primarily funded through taxes (85% public funding, OECD Health at a Glance 2023), ensures universal coverage with minimal patient contributions. The system's emphasis on preventive care, harm reduction policies, and digital health innovations, such as 100% electronic health record adoption, sets a global benchmark (WHO Europe 2023). In contrast, Turkey's healthcare system, while strengthened by the Health Transformation Program, faces challenges like higher out-of-pocket payments (25% of health expenditure) and regional disparities (World Bank 2023). By comparing key indicators, including per capita health spending (Sweden: \$6,200; Turkey: \$1,800, 2022 PPP), physician density, and vaccination rates, the study highlights Sweden's strengths and potential lessons for Turkey. The article concludes that adopting Sweden's decentralized governance, harm reduction strategies, and data-driven policies could enhance Turkey's healthcare system, tailored to its socio-economic context.

ÖZET

Bu makale, İsveç sağlık sistemini Türkiye perspektifinden kapsamlı bir şekilde analiz ederek, sistemin yapısını, finansmanını, halk sağlığı politikalarını ve karşılaştırmalı sağlık göstergelerini incelemektedir. İsveç'in desentralize sağlık modeli, büyük ölçüde vergilerle finanse edilmekte (%85 kamu fonu, OECD Health at a Glance 2023) ve hasta katkıları minimum düzeyde tutularak evrensel kapsayıcılık sağlanmaktadır. Koruyucu bakım, zarar azaltıcı politikalar ve %100 elektronik sağlık kaydı kullanımı gibi dijital sağlık yenilikleri, İsveç'i küresel bir referans noktası haline getirmektedir (WHO Europe 2023). Buna karşılık, Türkiye'nin sağlık sistemi, Sağlıkta Dönüşüm Programı ile güçlendirilmiş olsa da, cepten ödemelerin yüksekliği (%25) ve bölgesel eşitsizlikler gibi zorluklarla karşı karşıyadır (World Bank 2023). Kişi başına sağlık harcaması (İsveç: 6.200 USD; Türkiye: 1.800 USD, 2022 PPP), hekim yoğunluğu ve aşılama oranları gibi temel göstergeler karşılaştırılarak İsveç'in güçlü yönleri ve Türkiye için potansiyel dersler öne çıkarılmaktadır. Makale, İsveç'in desentralize yönetim, zarar azaltıcı stratejiler ve veri odaklı politikalarının, Türkiye'nin sosyo-ekonomik bağlamına uyarlanarak sağlık sistemini güçlendirebileceği düşünülmektedir.

Introduction

As Türkiye continues its efforts to enhance its healthcare system and achieve universal health coverage, global healthcare systems that serve as exemplary models provide significant inspiration for policymakers. In this context, the Swedish healthcare system stands out due to its high life expectancy (82.5 years as of 2023, OECD Health Data 2023), low infant mortality rates (2.1 per 1,000, WHO 2023), and effective public health policies. Sweden's decentralized healthcare structure, tax-based financing model, and emphasis on preventive healthcare services position it as a successful model for delivering sustainable universal healthcare. While Türkiye has made significant strides through the Health Transformation Program (2003–2013), it continues to face challenges such as healthcare financing, inequalities in service delivery, and shortages of healthcare personnel (OECD Health Data 2023). This article aims to examine the core components of the Swedish healthcare system, including its financing structure, service delivery, and public health policies, from a Turkish perspective.

By analyzing the Swedish system, this study seeks to identify potential areas for improvement in Türkiye's healthcare policies and to comparatively evaluate health indicators between the two countries. In this regard, Sweden's approaches to universal health

coverage, social security system, and policies addressing societal issues such as substance abuse may offer valuable insights for Türkiye's ongoing health reform processes.

The article is supported by current international reports and data, discussing the applicability of the Swedish model to Türkiye while considering the socio-economic differences between the two countries' healthcare systems. Although Türkiye's healthcare system provides broad coverage under its general health insurance scheme, it lags behind OECD and European averages in certain health outcomes. For instance, inequality in access to healthcare remains a significant issue. According to the 2023 OECD report, low-income individuals are 35% less likely to access necessary healthcare services compared to high-income groups (OECD Health Inequalities 2023). Furthermore, out-of-pocket healthcare expenditures account for 25% of total health spending in Türkiye, compared to only 15% in Sweden (OECD Health at a Glance 2023).

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Methods

This study is a descriptive analysis that qualitatively examines the healthcare systems of Türkiye and Sweden, grounded in the literature on comparative healthcare systems. The methodology employs a comparative system analysis based on secondary data sources. The study reviews reports, country profiles, health indicators, and academic publications from 2022 and 2023 issued by the OECD, World Bank, World Health Organization (WHO), and Sweden's National Health Institutions. The healthcare systems of Sweden and Türkiye are compared across thematic areas, including financing structures, service delivery, public health policies, social security practices, and digital health transformation. This methodological framework facilitates a discussion on the applicability of the strengths of the Swedish healthcare system to the Turkish context.

Structure and Financing of the Swedish Healthcare System

The Swedish healthcare system operates on a decentralized structure, functioning at national, regional, and local levels. The Ministry of Health and Social Affairs is responsible for policy formulation, while 21 county councils and municipalities coordinate service delivery (OECD, Sweden: Country Health Profile 2023). Financing is predominantly tax-based: according to 2023 OECD data, 85% of healthcare expenditures are funded by public sources, with the remaining 15% covered by private sector contributions and patient co-payments (OECD Health at a Glance 2023). Per capita healthcare expenditure in 2022 was USD 6,200 (PPP), surpassing the OECD average of USD 4,986 (OECD Health Data 2023). Patient co-payments are capped at approximately USD 150 annually, ensuring that hospital costs, outpatient care, and prescription medications are fully covered. Private insurance is utilized by only 7% of the population (WHO Europe, Sweden Health System Review 2023). The financial autonomy of county councils in Sweden's decentralized system supports rapid decision-making tailored to local healthcare needs, significantly contributing to high patient satisfaction (Sundin & Willner, 2020).

In contrast, Türkiye's healthcare financing structure is more complex. According to 2022 data, 75% of healthcare expenditures are funded by public sources, while 25% come from private sector contributions and patient out-of-pocket payments (OECD Health Data 2023). Per capita healthcare expenditure is USD 1,800 (PPP), approximately one-third of Sweden's level (OECD Health at a Glance 2023). Türkiye's social security system, managed through the Social Security Institution (SGK), finances healthcare services, and private health insurance is becoming increasingly prevalent. However, patient co-payments and out-of-pocket expenses in Türkiye are significantly higher than in Sweden, which hinders equitable access to healthcare and fuels debates about the balance between public and private service provision (World Bank, Turkey Health Sector Assessment 2023). Rural areas in Türkiye face challenges such as inadequate digital infrastructure and difficulties in healthcare personnel adapting to technology (World Bank, 2023). In Sweden, the efficient use of tax revenues supports the sustainability of healthcare services, whereas Türkiye's limited public financing increases reliance on the private sector (Anell et al., 2021).

Public Health and Preventive Policies

Sweden's public health policy is shaped by the Public Health Objectives Act of 2003, which centers on 11 objectives, including social participation, economic security, a safe environment, protection against infectious diseases, and the promotion of healthy lifestyles. The National Institute of Public Health is responsible for monitoring these objectives and submits reports to the government every four years (OECD, Sweden: Country Health Profile 2023).

Sweden's vaccination rates are exemplary, with 99% coverage for pertussis and 95% for measles in 2023, surpassing global standards (OECD Health at a Glance 2023). Additionally, Sweden's infectious

disease control is effectively managed through the Epidemiological and Social Information Database, established in collaboration with the WHO European Regional Office (WHO Europe, 2023). This success is underpinned by standardized national data collection and analysis systems, enabling rapid responses in pandemic management (Semenza & Giesecke, 2020).

In Türkiye, vaccination rates are close to Sweden's, with 90% for pertussis and 98% for measles, but challenges such as healthcare personnel shortages and high patient loads persist. According to 2023 OECD data, Türkiye has 1.9 physicians per 1,000 people compared to 3.5 in Sweden, and the number of consultations per doctor is 3,179 in Türkiye versus 80.3 in Sweden (OECD Health Data 2023). These disparities highlight issues with the quality and speed of healthcare access in Türkiye. Sweden's school-based preventive programs and targeted policies for ethnic groups provide an effective model for addressing societal issues such as substance abuse. Sweden's preventive health policies, particularly school-based programs aimed at reducing childhood obesity, promote healthy lifestyles and improve long-term health outcomes (Magnusson et al., 2020). For example, needle exchange programs launched in Sweden in 2006 aim to rehabilitate substance users through medical and social support (OECD, Sweden: Country Health Profile 2023).

Service Delivery and Treatment Policies

In Sweden, healthcare services are delivered through county council-operated regional hospitals and primary care clinics. Hospital physicians are typically salaried, with reforms transitioning toward payment systems based on operations or diagnoses (OECD, Sweden: Country Health Profile 2023). However, long waiting times for procedures such as coronary bypass, lens implantation, and hip replacement remain a key challenge, with an average wait time of approximately 90 days for elective surgeries, longer than in some OECD countries (OECD Health at a Glance 2023).

In Türkiye, healthcare services are provided through public and private hospitals. While the Health Transformation Program strengthened primary healthcare, hospital overcrowding and shortages of specialist physicians create access issues. According to 2023 World Bank data, the number of patients per hospital bed is higher in Türkiye than in Sweden (World Bank, Turkey Overview 2023). Additionally, substance abuse treatment in Türkiye is primarily managed by healthcare institutions rather than integrated social services, unlike Sweden's more holistic approach.

Sweden's public health policy, shaped by the Public Health Objectives Act of 2003, focuses on 11 objectives, including social participation, economic security, a safe environment, protection against infectious diseases, and the promotion of healthy lifestyles. The National Institute of Public Health monitors these objectives and provides reports to the government every four years (OECD, Sweden: Country Health Profile 2023). Sweden's vaccination rates, at 99% for pertussis and 95% for measles in 2023, exceed global standards (OECD Health at a Glance 2023). Furthermore, Sweden's infectious disease control is effectively managed through the Epidemiological and Social Information Database, established in collaboration with the WHO European Regional Office (WHO Europe, 2023).

Social Security System and Comparative Analysis

Sweden's social security system is based on a three-pillar pension model financed through earnings-based contributions. The first pillar provides a guaranteed minimum pension, the second pillar consists of earnings-related public pensions, and the third pillar comprises voluntary occupational and individual pension programs (OECD, Sweden: Country Health Profile 2023). This system supports the sustainability of social welfare and healthcare services in Sweden. In Türkiye, the social security system, managed by the Social Security Institution (SGK), plays a significant role in healthcare financing. However, out-of-pocket healthcare expenditures in Türkiye (25%) are higher than in Sweden (15%), potentially creating access barriers for low-income groups (OECD Health

Data 2023).

Substance Abuse and Harm Reduction Policies

Sweden's policies on substance abuse reflect a holistic approach, combining treatment and harm reduction measures. Needle exchange programs, introduced in 2006 in southern Sweden, aim to rehabilitate substance users through medical and social support (OECD, Sweden: Country Health Profile 2023). These programs have not only reduced HIV transmission but also increased access to the healthcare system for substance users, thereby reducing social stigma (Håkansson & Berglund, 2019). The programs encourage drug-free lifestyles while effectively preventing the spread of infectious diseases such as HIV. According to 2023 WHO Europe data, Sweden's needle exchange programs have reduced the HIV transmission rate to 0.2%, one of the lowest among OECD countries (WHO Europe, 2023). Additionally, substitution treatments such as methadone and buprenorphine are widely implemented in specialized outpatient clinics. Municipalities coordinate substance abuse treatment through social services, with government funding supporting these efforts (OECD, 2023).

In Türkiye, substance abuse treatment is primarily healthcare institution-focused, with limited integration of social services compared to Sweden. According to the 2023 World Bank report, the number of substance abuse treatment centers in Türkiye is insufficient, particularly in rural areas, where access issues persist (World Bank, Turkey Health Sector Assessment 2023). Capacity limitations at AMATEM (Alcohol and Substance Addiction Treatment and Training Centers) restrict treatment access, especially for the youth population (Evren & Çakmak, 2021). Harm reduction policies, such as needle exchange programs, are not widely implemented in Türkiye, and punitive measures for substance use take precedence. For instance, possession or use of illegal drugs in Türkiye can result in imprisonment under the Turkish Penal Code (2023). This contrasts with Sweden's rehabilitation-focused approach and highlights the need for Türkiye to develop social integration programs.

Healthcare Satisfaction and Access

In Sweden, satisfaction with healthcare services is above the OECD average. According to the 2023 OECD Health at a Glance report, 82% of the population reported being "very satisfied" or "somewhat satisfied" with healthcare services. However, issues such as access to specialist services (16%) and the inability to perform necessary tests (18%) contribute to dissatisfaction, particularly due to long waiting times for elective surgeries (OECD, 2023). Nevertheless, Sweden's universal coverage model largely ensures equitable access to healthcare services.

In Türkiye, satisfaction with healthcare services is lower, with 65% of the population expressing satisfaction, while access issues (25%) and long waiting times (20%) are primary complaints (OECD Health Data 2023). Although Türkiye's Health Transformation Program has strengthened primary healthcare, shortages of specialist physicians and hospital overcrowding, particularly in major cities, create access challenges. Sweden's decentralized structure enables effective coordination of healthcare services by local governments, while Türkiye's centralized system, managed by the SGK, exhibits regional disparities (World Bank, 2023).

Sweden's Digital Health Transformation and Inspiration for Türkiye

Sweden is a leader in digital health technologies. According to the 2023 OECD report, electronic health record (EHR) adoption in Sweden has reached 100%, and telemedicine services are widely used, particularly to improve access in rural areas. Telemedicine has significantly enhanced healthcare access for the elderly population in rural regions, strengthening the inclusivity of Sweden's healthcare system (Kajbjerg & Nordberg, 2022).

The National Institute of Public Health leverages health data analysis to shape policies in real-time, playing a critical role in achieving public health objectives (OECD, Sweden: Country Health Profile 2023).

For example, Sweden's infectious disease surveillance system has bolstered rapid response capabilities during pandemics.

Legal Frameworks and National Strategies

Sweden's healthcare system is organized in a decentralized structure, operating at national, regional, and local levels. The Ministry of Health and Social Affairs is responsible for policy formulation, while 21 county councils and municipalities coordinate service delivery (OECD, 2023). Sweden's harm reduction policies were updated in 2006 to emphasize measures such as needle exchange programs. While possession or use of illegal drugs is penalized under Sweden's Narcotics Penal Act, with fines or up to six months' imprisonment for minor offenses and 2 to 18 years for serious crimes (WHO Europe, 2023), supportive treatments are prioritized over punitive measures, fostering social integration.

In Türkiye, substance abuse is addressed primarily through punitive measures. Under Article 5237 of the Turkish Penal Code, possession or use of narcotic substances can result in 2 to 7 years of imprisonment (TCK, 2023). While rehabilitation programs are implemented through AMATEM centers, their capacity is limited, and integration with social services is less developed than in Sweden (World Bank, Turkey Health Sector Assessment 2023). Sweden's harm reduction policies could serve as a model for Türkiye; for instance, piloting needle exchange programs could reduce the spread of infectious diseases such as HIV and hepatitis.

Inter-Institutional Coordination and Monitoring

The success of Sweden's health policies relies on robust inter-institutional coordination. Established in 2002 under the Ministry of Health and Social Affairs, the National Drug Policy Coordinator strengthens collaboration between public and private sectors. Additionally, a government-established Coordination Group ensures the effective implementation of drug-related policies (OECD, 2023). The Swedish National Institute of Public Health (SNIPH) monitors public health objectives and provides reports to the government every four years, enabling data-driven policy development and implementation.

In Türkiye, health policy coordination is centrally managed by the Ministry of Health and the SGK. However, the limited role of local governments in healthcare services contributes to regional disparities. According to the 2023 World Bank report, Türkiye requires a stronger data infrastructure for monitoring and evaluating public health policies (World Bank, 2023). Sweden's decentralized coordination model could serve as an example for Türkiye to enhance the role of local governments in healthcare service delivery.

Comparative Health Indicators: Sweden and Türkiye

To better understand the healthcare systems of Sweden and Türkiye, a comparative analysis of key health indicators is necessary. These are summarized in Table 1.

Table 1. Comparative Analysis of Key Health Indicators

Indicator	Sweden	Türkiye
Per capita health expenditure (USD, PPP, 2022)	6.200	1.800
Physicians per 1,000 population (2023)	3,5	1,9
Nurses per 1,000 population (2023)	10,7	2,1
Measles immunization coverage (% , 2023)	95	98
Public share of health expenditure (% of GDP, 2023)	85	75
Pertussis immunization coverage (%2023)	99	90

Source: OECD Health at a Glance 2023, WHO Europe 2023.

Recommendations for Türkiye and Applicability of the Swedish Model

The primary lessons that the Swedish healthcare system offers for Türkiye include the following:

Decentralized Management: Sweden's management of healthcare services at the local level through county councils and municipalities enables rapid responses to regional needs. Increasing the authority of local governments in Türkiye's healthcare services could reduce regional disparities.

Harm Reduction Policies: Sweden's harm reduction policies, such as needle exchange programs, could be piloted in Türkiye to address substance abuse. These could be particularly effective in controlling infectious diseases like HIV and hepatitis.

Digital Health Investments: Sweden's success with electronic health records (EHR) and telemedicine services provides a model for strengthening Türkiye's e-Nabız system and enhancing digital health infrastructure in rural areas.

Data-Driven Policy Development: Sweden's National Institute of Public Health's data-driven monitoring system could serve as an example for Türkiye to enhance the effectiveness of its health policies. The Ministry of Health could strengthen its data collection and analysis capabilities.

However, the applicability of the Swedish model in Türkiye is limited by socio-economic differences. Türkiye's younger and larger population creates greater demand on the healthcare system, while limited economic resources make it challenging to fully adopt Sweden's tax-based financing model. Therefore, a hybrid approach tailored to Türkiye's unique conditions, drawing inspiration from the Swedish model, would be more realistic.

Conclusion

This study provides a comprehensive analysis of the Swedish healthcare system from a Turkish perspective, highlighting key differences and potential areas for adaptation. The findings demonstrate that Sweden's decentralized management model, tax-based financing, harm reduction-focused public health policies, and advanced digital health infrastructure contribute to a high-performing system.

In contrast, Türkiye's healthcare system faces challenges such as high out-of-pocket payment rates, shortages of physicians and nurses, regional disparities, and limited integration of social services into the healthcare system.

A comparison of indicators such as per capita healthcare expenditure, healthcare personnel density, and vaccination rates reveals that Sweden has developed a more sustainable and holistic healthcare system. However, Türkiye's younger and larger population, constrained economic resources, and centralized structure limit the direct applicability of the Swedish model.

In this context, certain components of Sweden's successful practices could be adapted to Türkiye's specific conditions. Empowering local governments to play a more active role in healthcare services, integrating social services—particularly in addressing substance abuse—expanding digital health systems to rural areas, and designing data-driven public health policies could drive structural improvements in Türkiye's healthcare system.

In conclusion, this comparative analysis identifies concrete policy areas that could guide Türkiye's health reform process.

Conflict of Interest Statement

The authors declare that there are no potential conflicts of interest related to the research, authorship, and/or publication of this article.

Funding

No financial support was received for this project.

Ethical Approval

As this study is a review article, ethical approval was not deemed necessary.

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