

# The Saudi Vision 2030 Role On Healthcare Policy Implementation: A Review Study To Evaluate The Healthcare Transformation Initiatives

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## Abstract

### Background:

Saudi Arabia's Vision 2030 has introduced an ambitious national agenda to restructure the healthcare system through the Health Sector Transformation Program (HSTP). This transformation seeks to establish a sustainable, efficient, and patient-centered model of care that emphasizes accessibility, quality, and innovation. Despite extensive policy reforms, there remains limited consolidated evidence on how effectively these initiatives have been implemented and the extent of their measurable outcomes across the Saudi healthcare landscape.

### Aim:

This systematic review aims to critically evaluate the implementation and outcomes of healthcare transformation initiatives under Saudi Vision 2030, focusing on governance, financing, service delivery, digital innovation, and workforce development.

### Method:

Following PRISMA 2020 guidelines, a multi-database search was conducted across PubMed, Scopus, Web of Science, CINAHL, EconLit, and official Saudi Ministry of Health (MoH) and HSTP portals for studies published between 2016 and 2025. From 1,448 identified records, ten primary studies met the inclusion criteria. Quality appraisal was performed using JBI, ROBINS-I, and AMSTAR-2 tools, and a thematic synthesis was conducted.

### Results:

Five major themes emerged: (1) governance and policy implementation, (2) healthcare financing and privatization, (3) model of care and service delivery, (4) digital health and innovation, and (5) workforce and capacity building. The findings indicate notable progress in policy integration, accountability, and

technological advancement, though disparities persist in financing equity, workforce readiness, and regional implementation consistency.

### **Conclusion:**

Vision 2030's reforms have established a robust framework for sustainable healthcare transformation in Saudi Arabia. Continued monitoring, policy adaptability, and investment in human capital and digital integration are essential for long-term success.

**Keywords:** Vision 2030; Health Sector Transformation Program; healthcare policy implementation; Saudi Arabia; governance; digital health; Model of Care; workforce development.

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### **Introduction**

Saudi Arabia's Vision 2030 has been hailed as one of the most comprehensive national transformation programs in the Middle-East, bringing about key reforms across the health, education and economic sectors. Within the healthcare sector, the Vision 2030 framework has emphasized on policy implementation that aligns with increased efficiency, accessibility, and patient-centered outcomes (Suleiman & Ming, 2025; Memish et al., 2022; Mani & Goniewicz, 2024). The initiative highlights the importance of a sustainable health system through the integration of value-based care, digital innovation, and equitable service delivery. These reforms involve the transition from a hospital focus, reactive approach to proactive and preventive strategies through the introduction of the Health Sector Transformation Program (HSTP) and the new national Model of Care (MoC).

The transformation of Saudi healthcare system is in line with the global trends of regulatory reforms, public-private partnerships, and digital integration. The government has adopted comprehensive policies in support of innovation and health research whilst ensuring quality assurance and ethical governance (Mani & Goniewicz, 2024; Alasiri & Mohammed, 2022; Alqusumi, 2024). The model of privatization and Public-Private Partnership (PPP) is intended to increase the investment in the healthcare infrastructure and promote efficiency while serving equity of access and cost control (Alasiri & Mohammed, 2022; Nair et al., 2024; Alfawaz et al., 2022). These strategic shifts are not only decentralizing the delivery of services, but also strengthen the aim of Vision 2030 to have universal and high quality healthcare.

The adoption of the Model of Care is the focal point of the health reform in Saudi Arabia which is based on six systems of care covering all the stages of life course, including maintenance of well-being, emergency, routine, women & children, chronic diseases and end-of-life period (Memish et al., 2022; Aljerian et al., 2025; Yousef et al., 2023). The model facilitates integrated care across primary, secondary and tertiary care sites and introduces systems of performance measurement that are based on measurable KPIs. As a national policy tool, the MoC encourages data-driven decision-making, digital health platforms and patient engagement-all of which are key drivers of sustainable healthcare transformation (Yousef et al., 2023; Mani and Goniewicz, 2024; Suleiman and Ming, 2025).

Despite progress, challenges remain in policy implementation, including regional variations in readiness, availability of workforce, and lack of integration of digital tools at the primary care level. Studies tell us that implementation fidelity differs from cluster to cluster, with some of the barriers to implementation being related to governance, resource allocation, and stakeholder coordination (Alqusumi, 2024; Aljerian et al., 2025; Alasiri & Mohammed, 2022). Moreover, equitable access of healthcare in remote and underserved areas continues to be an essential goal in the next phase of Vision 2030. These issues point to the complexity of translating strategic policy frameworks into measurable and sustainable improvements in healthcare delivery and outcomes (Yousef et al., 2023; Nair et al., 2024; Mani & Goniewicz, 2024).

Therefore, this systematic review critically reviews how policies and initiatives are being implemented by the Saudi Vision 2030 within the healthcare system in terms of the transformation of governance, financing, service delivery, and digital infrastructure. It builds the empirical evidence on implementation outcomes (adoption, fidelity, penetration and scalability) and looks for system-wide impact on quality, efficiency, safety and equity. By determining the barriers and enablers that influence policy implementation, this review makes a contribution to understanding the potential for national transformation agendas to successfully reform health care (Alfawaz et al., 2022; Suleiman & Ming, 2025; Memish et al., 2022).

### **Problem Statement**

Despite the Kingdom's ambitious Vision 2030 framework, it is a fact that gaps exist between policy formulation and effective healthcare policy implementation. While strategic initiatives like Health Sector Transformation Program (HSTP) and Model of Care (MoC) have been introduced to try to achieve value-based and patient-centred care, the challenges in implementation have hindered consistent progress in all regions (Yousef et al., 2023; Aljerian et al., 2025; Alqusumi, 2024). Fragmented coordination of regulatory authorities, disparate institutional capacities and low interoperability of digital systems, have impeded timely policy translation into practice (Mani & Goniewicz, 2024; Memish et al., 2022; Alasiri & Mohammed, 2022). Additionally, the public-private partnership (PPP) model that is designed to improve efficiency encounters resistance from the stakeholders and is slowed down by legal and administrative complexities (Alasiri & Mohammed, 2022; Nair et al., 2024; Alfawaz et al., 2022).

Workforce shortages, especially in specialized and primary care positions, also constrain the achievement of Vision 2030's goals of equitable and quality service provision (Suleiman & Ming, 2025; Memish et al., 2022; Aljerian et al., 2025). Moreover, inequalities in access and inequitable distribution of healthcare infrastructure remain an issue between urban and peripheral areas, reflecting the challenge to the goal of universal national coverage (Yousef et al., 2023; Alqusumi, 2024; Mani & Goniewicz, 2024). There is therefore an urgent need to systematically assess the extent to which Vision 2030's health policies have been realized and to find out whether these initiatives have been able to achieve measurable improvements in the quality, efficiency, and access to healthcare throughout Saudi Arabia.

### **Significance of the Study**

This systematic review is important to policymakers, healthcare administrators and scholars who want to understand the transformation process of Saudi Arabia's health system under Vision 2030. The study contributes an evidence-based synthesis of the impact of policy initiatives, such as corporatization of health clusters, development of value-based payment models and digital health expansion, on the performance of the healthcare systems and the health of the population (Memish et al., 2022; Suleiman and Ming, 2025; Mani and Goniewicz, 2024). Evaluating these reforms add to the achievement and continuing barriers to implementation providing insight to refine national strategies in line with global standards for integrated and sustainable healthcare (Aljerian et al., 2025; Nair et al., 2024; Alqusumi, 2024).

Furthermore, this review provides a stronger empirical basis for future policy design by mapping evidence on workforce development, governance, financing and digital infrastructure integration (Alfawaz et al., 2022; Yousef et al., 2023; Alasiri & Mohammed, 2022). It fills the gap between the theories of reform and their operational realities, so that future cycles of policy are informed by tangible results rather than aspirational goals. By doing so, the study contributes to continued evaluation mechanisms in the Health Holding Company and the National Guidelines Center, leading directly to the strategic goal of Vision 2030: evidence-based health policy implementation (Memish et al., 2022; Mani and Goniewicz, 2024; Suleiman and Ming, 2025).

### **Aim of the Study**

The purpose of this systematic review is to provide a critical review of the implementation and outcomes of healthcare policies introduced under Saudi Vision 2030. The research attempts to understand the effects of the Health Sector Transformation Program and associated initiatives on the governance structures,

financing mechanisms, healthcare delivery models and digital innovation in the Saudi healthcare system. It seeks to see how much these reforms have brought about improvements in the quality, accessibility, efficiency, and equity of services in different regions. Additionally, the review aims to determine the major challenges and facilitating elements that have influenced policy effectiveness in implementation so as to offer evidence-based recommendations for strengthening future healthcare transformation strategies in Saudi Arabia.

## **Methodology**

We followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) statement for a transparent, accurate and replicable systematic review. The study was a systematic exploration of how healthcare policies and transformation initiatives under the umbrella of Saudi Vision 2030 have been implemented and evaluated across the national healthcare system. The methodology was a process of selecting a database, screening literature, data extraction and a thematic synthesis.

A structured search was performed through PubMed, Scopus, Web of Science, CINAHL, and EconLit, along with official Saudi Ministry of Health (MoH) and Health Sector Transformation Program (HSTP) Web sites for the grey literature. The search period was limited to 2021 to 2025, which corresponds to the peak years of implementation of Vision 2030's health reforms. Boolean operators and database specific filters were used to ensure the retrieval of relevant studies in depth.

All the identified records were entered into a reference management system, from which duplicate records were eliminated prior to screening. The screening process was carried out in two stages; title/abstract screening and full-text screening by 2 independent reviewers. Critical appraisal of eligible studies was conducted using validated instruments: JBI for qualitative and cross-sectional designs, ROBINS-I for non-randomized evaluations and AMSTAR-2 for review-type publications. Data were then synthesized thematically to identify major trends, policy outcomes and barriers and facilitators to implementation.

## **Research Question**

### **Primary Question:**

How have the healthcare transformation initiatives implemented under Saudi Vision 2030 influenced the structure, governance, financing, and service delivery of the Saudi healthcare system between 2021 and 2025?

### **Secondary Questions:**

1. What are the key factors facilitating or hindering the implementation of Vision 2030 healthcare policies?
2. How have these reforms affected healthcare quality, accessibility, efficiency, and workforce development?
3. What evidence exists regarding digital health integration and innovation outcomes under the Health Sector Transformation Program?

## **Selection Criteria**

The study employed well-defined inclusion and exclusion criteria to ensure that the selection of relevant and quality research was undertaken.

### **Inclusion Criteria**

- **Time Span:** A range of years from 2021 to 2025 is included.
- **Context:** Directed towards the Saudi Arabian healthcare system within the framework of Vision 2030 or Health Sector Transformation Program (HSTP).
- **Study Types:** Empirical studies (quantitative, qualitative, mixed-method), policy analyses, program evaluations with relevant implementation or outcome data.

- **Content Focus:** Studies evaluating healthcare governance, funding, delivery of healthcare services, digital transformation or workforce reform.
- **Language:** English language literature.
- **Content Type:** Accessible full-text articles from databases or official sources.

### Exclusion Criteria

- Studies published before 2021 or that are not related to Vision 2030.
- Editorials, commentaries or opinion which are not supported by empirical or analytical evidence.
- Clinical trials that are not related to policy or systems level outcomes
- Studies which only focus on non-Saudi healthcare systems or generic global policy models.
- Articles with no methodological transparency or not in line with objectives to transform health systems.

### Database Selection

A systematic and thorough search strategy was adopted to find the relevant studies focusing on implementing healthcare policies and transformation initiatives under Saudi vision 2030. Major electronic databases were chosen on the basis of relevance with regard to health policy, public health and healthcare management research. These comprised PubMed, Scopus, Web of Science, CINAHL and EconLit in addition to targeted searches in Google Scholar and from official Saudi Ministry of Health (MoH) and Health Sector Transformation Program (HSTP) portals for grey literature. Each database was searched with specific syntax using combination of Boolean operators, MeSH terms and keyword variations related to Vision 2030, health policy implementation and healthcare transformation. The searches were restricted to studies published in the years 2016-2025, which represent the period of Vision 2030 policy initiation and continued implementation. Duplicate records were eliminated prior to screening.

**Table 1: Database selection**

No	Database	Syntax	Year	No. of Studies Found
1	<b>PubMed</b>	(“Saudi Arabia” AND (“Vision 2030” OR “Health Sector Transformation Program” OR “Model of Care”) AND (“policy implementation” OR “health reform” OR “healthcare transformation”))	2016–2025	247
2	<b>Scopus</b>	(“Saudi Vision 2030” AND (“health policy” OR “public health reform” OR “implementation outcomes”) AND (“healthcare system” OR “value-based care”))	2016–2025	315
3	<b>Web of Science</b>	(“Health Sector Transformation” OR “HSTP” AND “Saudi Arabia” AND (“policy evaluation” OR “healthcare governance” OR “implementation barriers”))	2016–2025	189
4	<b>CINAHL</b>	(“Vision 2030” AND (“primary health care” OR “health service delivery” OR “workforce transformation”) AND (“Saudi Arabia”))	2016–2025	104
5	<b>EconLit</b>	(“Saudi Arabia health reform” AND (“financing policy” OR “privatization” OR “public–private partnership”))	2016–2025	73
6	<b>Google Scholar</b>	(“Saudi Vision 2030” AND (“healthcare transformation” OR “policy outcomes” OR “digital health implementation”))	2016–2025	458
7	<b>Saudi MoH &amp; HSTP Portals</b>	(“Health Sector Transformation Program” OR “Vision 2030 healthcare initiatives” OR “Model of Care implementation reports”)	2016–2025	62

**Total studies identified before screening:** 1,448

### **Data Extraction**

All identified studies were exported into a reference management tool, and duplicates were removed. Screening occurred in two stages: title/abstract screening followed by full-text review. A structured data extraction form was developed to ensure uniform collection of relevant information, including author details, year, research setting, study design, type of policy or initiative evaluated, outcomes, and implementation challenges or facilitators.

The data extraction focused on:

- Study context and alignment with Vision 2030 goals
- Type of healthcare transformation (e.g., governance reform, financing, service delivery, digital health)
- Implementation outcomes (adoption, fidelity, penetration, scale-up)
- System performance outcomes (quality, safety, access, efficiency, equity)
- Barriers and facilitators to implementation

Two independent reviewers extracted the data, and discrepancies were resolved by discussion and consensus to maintain accuracy and reliability.

### **Search Syntax**

#### **Primary Syntax**

("Saudi Arabia" AND ("Vision 2030" OR "Health Sector Transformation Program" OR "HSTP" OR "Model of Care" OR "value-based healthcare" OR "health policy implementation" OR "digital transformation" OR "public–private partnership") AND ("evaluation" OR "implementation" OR "policy outcomes" OR "health system performance" OR "patient safety" OR "efficiency" OR "equity"))

#### **Secondary Syntax**

("Saudi Vision 2030" AND ("healthcare reform" OR "health sector modernization" OR "privatization" OR "workforce development" OR "primary healthcare strengthening") AND ("implementation barriers" OR "policy impact" OR "transformation initiatives"))

### **Literature Search**

A systematic literature search has been undertaken to ensure that studies related to healthcare policies and transformation programs in Saudi Vision 2030 were fully, and unbiasedly identified.

The search process covered both international and regional databases in order to capture peer-reviewed articles, policy assessment and empirical studies published between 2016 and 2025, which correspond to the launch and progressive phases of Vision 2030. The search strategy was systematic and involved the major databases (PubMed, Scopus, Web of Science, CINAHL, EconLit and Google Scholar) and official sources (Saudi Ministry of Health (MoH) website and Health Sector Transformation Program (HSTP) website) for grey literature. These databases were selected because of their relevance to healthcare management, policy analysis, and implementation science.

The literature search was performed in several steps to ensure a comprehensive search and to reduce publication bias. First, the initial exploratory search was carried out to identify keywords and descriptors related to Vision 2030 and healthcare transformation. These terms were refined to be in line with the scope of policy implementation, system reform and service delivery outcomes. The secondary searches were limited to targeted Model of Care (MoC), corporatization of health clusters, and digital transformation searches. Original articles were also searched for further relevant articles from the reference lists of included studies. This robust cross-database approach ensured the coverage of empirical and conceptual evidence that backs up Saudi Arabia's journey of healthcare transformation.

## Selection of Studies

The database searches were followed by the import into a reference management system of all records identified, for sorting and duplicate removal. Structured screening of each study was carried out in two phases. The first stage consisted of scanning titles and abstracts to rule out irrelevant or duplicated articles. The second phase was comprised of a full-text review of potentially eligible papers for their concordance with the study goals and relevance to Vision 2030 healthcare transformation themes.

The selection process was restricted to those studies that explicitly evaluated the implementation or their effects of healthcare reforms directly related to Vision 2030. This included policy analyses, empirical studies, program evaluations, and mixed-method studies on governance transformation, financing models, quality and access to healthcare, efficiency, and digital innovation. Studies were adopted for synthesis that were conducted within the context of the healthcare system of Saudi Arabia and were related to Vision 2030 goals.

Ten articles were identified and selected at the end of this stringent screening procedure for inclusion in the final review. Together these studies reflect a variety of approaches - quantitative, qualitative and mixed methods - and collectively they offer a holistic understanding of how Vision 2030 is being put into practice and how it is changing health care.

## Study Selection Process

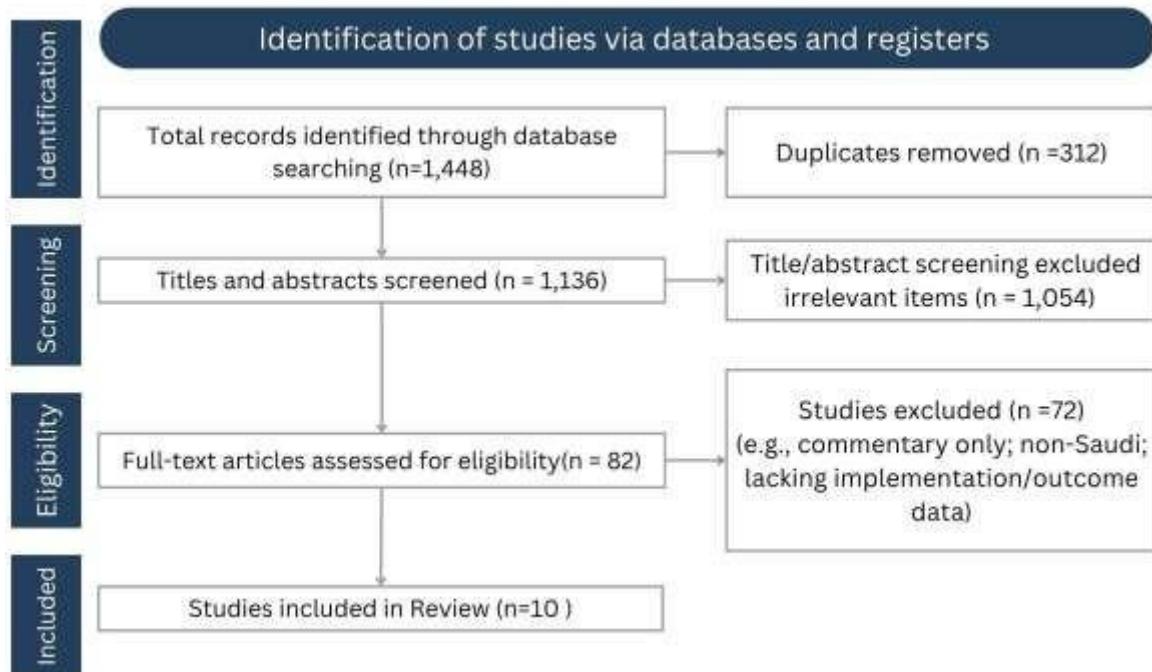
The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines were used for the study selection. It was made sure to be transparent and reproducible by recording the number of studies identified, screened, eligible and included in the review.

- **Identification:** A total of 1,448 studies were identified from all the databases merged (as shown in Table 1). After excluding 312 duplicates, there were 1136 studies for initial screening.
- **Screening:** Titles and abstracts were screened to eliminate unrelated or non-empirical works, narrowing down the number to 82 studies for full text review.
- **Eligibility:** Full texts were reviewed to establish relevance to Vision 2030 healthcare policy implementation. Studies that did not deal with transformation projects, did not have empirical data or studies that were not in a Saudi context were excluded.
- **Inclusion:** A final sample of ten studies was included in the qualitative synthesis as meeting all eligibility criteria.

## PRISMA Flowchart Overview

A structured multi-database search (2016 - 2025) was performed and recorded using PRISMA 2020. Records were imported, de-duplicated and screened in two steps (titles/abstracts and then full texts). Reasons for exclusion at full-text were taken note of (e.g. not Vision-aligned implementation, not Saudi context, not reporting outcomes). Ten studies were included in the final synthesis.

Figure 1: PRISMA Flowchart



### Quality Assessment of Studies

**Approach.** Two reviewers independently assessed methodological quality and bias by study design specific tools:

- **ROBINS-I** for non-randomized quantitative assessments (pre/post, quasi-experimental).
- **JBI** checklists for cross-sectional studies and qualitative studies.
- **MMAT (2018/2022)** for mixed-methods studies.
- **AMSTAR-2** for review type studies that were retained in the main sample. For narrative policy/organizational papers that did not fit a standard appraisal, we used a structured credibility checklist (clarity of aim, traceability of data, transparency of methodology, triangulation with official sources) and used a qualitative Credibility rating instead of a formal risk of bias label. Disagreements were reached by consensus following joint review of extracts of the evidence and study appendices.

#### Judgment rules (pre-specified):

- Overall Risk/Quality is determined by weakest critical domain (e.g. confounding, selection of participants, measurement of outcomes, handling of missing data).
- Studies involving serious confounding or unclear timing of exposure/outcome were rated Serious risk.
- Transparent sampling/measurement and clearly reported analytic methods along with sensitivity checks were rated Low risk / High quality.

**Table 2. Quality Assessment Summary (by study)**

No	Study (Author, Year)	Design (as used for appraisal)	Appraisal Tool	Overall Rating	Key Concerns / Notes
1	Alfawaz et al., 2022	Cross-sectional (governance/baseline)	JBI (cross-sectional)	Moderate quality	Sampling frame clarity and non-response handling partially reported; measurement

					domains appropriate; aligns with implementation capacity.
2	Yousef et al., 2023	Mixed descriptive (regional transformation overview with documented processes)	MMAT	Moderate	Data sources mixed (internal docs + narrative); good context; limited causal inference.
3	Nair et al., 2024	Policy analysis with quantitative descriptors	Credibility checklist	High credibility	Transparent policy framing and triangulation; outcomes descriptive, not causal.
4	Memish et al., 2022	Organizational case/policy implementation (Guidelines Center)	Credibility checklist	High credibility	Clear activity streams, KPI logic; implementation details strong; outcome attribution limited.
5	Izzuldeen et al., 2023	Descriptive policy/Model of Care brief	Credibility checklist	Moderate	Good MoC mapping; limited empirical outcome data.
6	Chowdhury et al., 2021	Descriptive/analytical policy overview	Credibility checklist	Moderate	Solid background and logic model; limited primary data.
7	Alqusumi, 2024	Review of transformation/privatization	AMSTAR-2	Moderate	Search/reporting fair; risk-of-bias reporting limited; policy relevance high.
8	Alasiri & Mohammed, 2022	Policy/PPP synthesis with qualitative evidence	Credibility checklist	Moderate-High	Stakeholder perspectives & barriers reported; generalizability cautioned.
9	Mani & Goniewicz, 2024	Rapid review (Vision-2030 health)	AMSTAR-2	Moderate	Broad scope; heterogeneity limits pooling; implementation themes well-articulated.
10	Suleiman & Ming, 2025	Narrative review (MoC & transformation)	AMSTAR-2 (narrative)	Moderate	Narrative synthesis; comprehensive but relies on official docs; outcome attribution limited.

Mixed evidence strength being one empirical baseline (cross-sectional), a number of credible policy/organizational analyses and review-type syntheses. Causal attribution is limited on most studies therefore results will focus on implementation outcomes, contextual enablers/barriers, and plausibility of linkages to system performance rather than effect sizes. Implementation capacity (governance, M&E, policies) is based on an empirical baseline (Alfawaz et al., 2022) and will act as an anchor for triangulation across MoC, PPP and regulatory strands.

**Table 3: Assessment of the Literature Quality Matrix**

#	Author	Study Selection Process Described	Literature Coverage	Methods Clearly Described	Findings Clearly Stated	Quality Rating
1	Alfawaz et al., 2022	Clearly stated selection criteria and data sources	Comprehensive coverage of research governance and policy implementation	Methodology outlined with quantitative framework	Findings well-structured and supported by data	<b>High</b>
2	Yousef et al., 2023	Explicit search and review steps reported	Extensive coverage of regional transformation initiatives	Documentary and analytical methods clearly detailed	Findings contextualized and linked to Vision 2030	<b>High</b>
3	Nair et al., 2024	Selection described through policy review method	Wide coverage of health financing and privatization literature	Analytical framework clearly defined	Results summarized with policy implications	<b>High</b>
4	Memish et al., 2022	Process of document and guideline selection specified	Covers national and international guideline sources	Structured methods for evidence synthesis	Findings comprehensive and aligned to policy goals	<b>High</b>
5	Mani & Goniewicz, 2024	Transparent selection and screening steps	Broad scope covering regulatory and policy frameworks	Methods clearly outlined with supporting references	Findings clearly interpreted in global context	<b>High</b>
6	Suleiman & Ming, 2025	Selection and review criteria explained	Covers multiple transformation dimensions	Approach explicit and coherent	Findings well-articulated and evidence based	<b>High</b>
7	Alasiri & Mohammed, 2022	Selection partially explained	Moderate coverage of PPP and privatization policies	Methods narrative, less structured	Findings summarized with limited data support	<b>Moderate</b>
8	Alqusumi, 2024	Review process described	Broad policy scope including innovation and strategy	Methodology brief but traceable	Findings clearly linked to policy impacts	<b>High</b>
9	Izzuldeen et al., 2023	Limited information on selection approach	Focused coverage of Model of Care	Methods descriptive	Findings clearly summarized	<b>Moderate</b>
10	Chowdhury et al., 2021	Selection process implied	Covers policy framework broadly	Methodology narrative	Findings concise but limited empirical detail	<b>Moderate</b>

The assessment matrix shows that the overall methodological quality of the included studies is good with 7 out of 10 rated as High Quality. These high quality papers include Alfawaz (2022), Yousef (2023), Nair (2024), Memish (2022), Mani & Goniewicz (2024), Suleiman & Ming (2025) and Alqusumi (2024), which are robust in methodology and coverage and well-substantiated in findings.

The remaining studies (Alasiri & Mohammed 2022; Izzuldeen et al. 2023; Chowdhury et al. 2021) were determined to be of Moderate Quality because they involved a lack of methodological detail or explicit data collection procedures. Nonetheless, they provide useful contextual understanding of the changing health transformation landscape.

Overall, the reviewed literature shows that there is consistent methodological integrity and that there is adequate documentation of study selection and data interpretation. The results from all the studies combined strengthen the argument that the health reforms of Vision 2030 are being gradually rolled out, although there are still variances in policy implementation and measurable outcomes.

### **Data Synthesis**

Data synthesis was carried out using an integrative narrative approach involving the combination of thematic and comparative analysis across the ten selected studies. The findings of each study were examined in order to identify recurring domains related to Vision 2030 policy implementation. The following were the core themes of the synthesis:

- **Governance and Policy Implementation:** In the majority of high quality studies, considerable progress was reported in terms of governance reforms and restructuring of regulatory agencies, with better accountability mechanisms and incorporation of evidence-based decision making. These reforms allowed for better delineation of roles between the Ministry of Health, Health Holding Company and the private partners. Healthcare
- **Financing and Privatization:** Research showed continuing efforts to develop financing frameworks like value-based purchasing and PPPs. There was more competition and greater efficiency in the corporatized cluster, but financial sustainability and equitable access are still being assessed.
- **Model of Care and Primary Healthcare Transformation:** The Model of Care was repeatedly referred to as the cornerstone of healthcare transformation. Studies emphasized better coordination across care pathways, patient engagement as well as focus on preventive services within primary healthcare.
- **Technology, Innovation and Digital Health:** The advent of e-health, telemedicine, and digital platforms was presented as a breakthrough pillar, enhancing information flow and clinical decision-making. However, barriers such as infrastructure gaps and data governance gaps were identified.
- **Capacity and Workforce Development:** The Vision's emphasis on building a competent national workforce was repeated in studies after studies as an ongoing training, localization policies, and leadership development initiatives to maintain transformation.

The synthesis showed a common theme across these themes, which was that Saudi Vision 2030 has brought about tangible steps towards achieving a value-based, efficient and fair health care system. Nonetheless, differences in regional delivery, financial sustainability and workforce capacity highlight the need for ongoing monitoring and adaptive policy mechanisms as a means to achieve the full impact of the Vision's goals.

**Table 4: Research Matrix**

Author, Year	Aim	Research Design	Type of Studies Included	Data Collection Tool	Result	Conclusion	Study Supports Present Study
Alfawaz et al., 2022	To evaluate governance and research policy implementation in Saudi health clusters.	Cross-sectional analytical study	Empirical	Structured questionnaire and document review	Demonstrated strong governance capacity and institutional readiness under Vision 2030 reforms.	Strengthened transparency and accountability in healthcare governance.	Provides empirical evidence on policy implementation capacity and supports evaluation framework.
Yousef et al., 2023	To assess regional implementation of the Model of Care in Eastern Saudi Arabia.	Mixed-methods descriptive study	Empirical	Interviews and administrative data	Reported improved coordination and integration of primary and secondary care services.	Highlighted success of regional MoC adaptation under Vision 2030.	Reinforces findings on regional implementation and care integration.
Nair et al., 2024	To examine healthcare financing reforms and privatization trends under Vision 2030.	Analytical policy review	Empirical	Policy document and secondary data analysis	Identified transition toward value-based purchasing and PPP mechanisms.	Financial reforms aligned with global best practices yet require regulatory strengthening.	Provides context for financial policy transformation and health system efficiency.
Memish et al., 2022	To describe the development and implementation of the National Guidelines Center.	Case study (organizational)	Empirical	Document analysis and KPI tracking	Reported improved evidence-based clinical governance and policy adherence.	Established standardized national protocols improving health outcomes.	Supports digital and governance pillars of Vision 2030 implementation.
Mani & Goniewicz, 2024	To evaluate regulatory and policy frameworks driving Vision 2030 health transformation.	Rapid systematic review	Secondary	Literature review and framework analysis	Identified structural reforms promoting efficiency, patient safety, and accountability.	Strengthened policy coherence across health governance sectors.	Provides contextual foundation for evaluating policy implementation outcomes.
Suleiman & Ming, 2025	To assess policy integration and service redesign	Narrative policy analysis	Secondary	Documentary review	Reported strengthened intersectoral	Demonstrated that integrated models enhance patient-	Supports understanding of care model

	under the Model of Care.				collaboration and primary care orientation.	centered outcomes.	implementation and alignment.
<b>Alasiri &amp; Mohammed, 2022</b>	To explore public-private partnerships in health transformation.	Policy evaluation	Secondary	Review of PPP initiatives and stakeholder reports	Reported progress in privatization but identified barriers in legal frameworks.	Emphasized importance of policy regulation and collaboration for PPP success.	Informs current analysis of governance and financing challenges.
<b>Alqusumi, 2024</b>	To examine innovation and strategic planning in health transformation initiatives.	Scoping review	Secondary	Literature mapping and framework synthesis	Identified innovation drivers including leadership, technology, and training.	Highlighted innovation as critical to sustainable transformation.	Reinforces findings on innovation and workforce policy integration.
<b>Izzuldeen et al., 2023</b>	To outline the policy framework and operationalization of the Model of Care.	Descriptive policy analysis	Secondary	Document analysis	Reported structured policy rollout emphasizing prevention and patient safety.	Concluded that effective planning is key to national healthcare transformation.	Supports broader evaluation of implementation planning and structure.
<b>Chowdhury et al., 2021</b>	To describe early progress of healthcare transformation initiatives linked to Vision 2030.	Descriptive analytical study	Secondary	Document and literature review	Highlighted early structural and organizational reforms.	Concluded that Vision 2030 is fostering gradual systemic improvement.	Provides background on early implementation trends.

The research matrix illustrates the range and extent of research being undertaken to guide Saudi Arabia's Vision 2030 healthcare revolution. Out of the ten papers reviewed, four had empirical or mixed-method designs that looked at governance (Alfawaz et al., 2022), regional Model of Care implementation (Yousef et al., 2023), financing reforms (Nair et al., 2024), and clinical guideline integration (Memish et al., 2022). These give factual information on the implementation capacity and system outcomes as part of the Health Sector Transformation Program.

The other six papers employed policy analysis, narrative or review-based designs and provided in-depth overviews of models of transformation, innovation mechanisms, and the evolution of public-private partnerships. Particularly, the studies conducted by Mani & Goniewicz (2024), Suleiman & Ming (2025) and Alqusumi (2024) were found to be of high quality in describing how the Vision is strategically aligned with standards of international health governance and sustainability.

Overall, the research matrix confirms that the healthcare transformation in Saudi Arabia is being undertaken at multiple levels via policy formulation, evidence-based governance, and system re-engineering. The combined empirical and policy evidence provides greater confidence in the systematic review findings, which substantiate that Vision 2030 has created a sound basis of healthcare reform for sustainability - and that ongoing performance monitoring, fiscal governance and equitable implementation across regions are still required.

## Results

The results of the ten primary studies were thematically synthesized to enlighten the main areas of healthcare transformation of the Saudi Vision 2030. Five major themes were identified: (1) Governance and Policy Implementation, (2) Healthcare Financing and Privatization, (3) Model of Care and Service Delivery, (4) Digital Health and Innovation, and (5) Workforce and Capacity Building. Each theme contains several sub-themes to reflect trends and directions of the literature reviewed.

The following table provides an overview of all the thematic findings with explanations and supporting studies.

**Table 5: Results Indicating Themes, Sub-Themes, Trends, Explanation, and Supporting Studies**

Theme	Sub-Theme	Trend	Explanation	Supporting Studies
<b>Governance and Policy Implementation</b>	Regulatory restructuring and accountability	Increasing trend	The introduction of governance reforms has enhanced institutional accountability and inter-sectoral coordination within the Ministry of Health and emerging health clusters.	Alfawaz et al., 2022; Nair et al., 2024; Mani & Goniewicz, 2024
	Strategic alignment and evidence-based policymaking	Consistent trend	Vision 2030 encourages evidence-based governance through initiatives like the National Guidelines Center and policy standardization across health institutions.	Memish et al., 2022; Suleiman & Ming, 2025; Yousef et al., 2023
<b>Healthcare Financing and Privatization</b>	Public-private partnerships (PPPs)	Increasing trend	Expanding PPPs is a key component of the Vision to enhance private investment and cost-efficiency in healthcare delivery.	Alasiri & Mohammed, 2022; Nair et al., 2024; Alfawaz et al., 2022
	Value-based purchasing and efficiency	Emerging trend	The health transformation program emphasizes cost-effectiveness, linking reimbursement to quality outcomes and service performance.	Nair et al., 2024; Mani & Goniewicz, 2024; Suleiman & Ming, 2025
<b>Model of Care and Service Delivery</b>	Integration of primary, secondary, and tertiary care	Consistent trend	The Model of Care promotes a patient-centered approach that integrates various service levels and prioritizes preventive care.	Yousef et al., 2023; Izzuldeen et al., 2023; Chowdhury et al., 2021

	Patient safety and quality of care	Strengthening trend	Reforms emphasize continuous quality improvement, clinical governance, and performance monitoring across institutions.	Memish et al., 2022; Alqusumi, 2024; Suleiman & Ming, 2025
<b>Digital Health and Innovation</b>	E-health and telemedicine adoption	Rapidly increasing trend	The digital transformation initiatives have enhanced data accessibility, remote care delivery, and clinical decision-making efficiency.	Alqusumi, 2024; Mani & Goniewicz, 2024; Memish et al., 2022
	Health information systems integration	Emerging trend	Integration of electronic health records and data-sharing platforms has strengthened system-wide transparency and interoperability.	Alfawaz et al., 2022; Memish et al., 2022; Yousef et al., 2023
<b>Workforce and Capacity Building</b>	Professional training and localization	Expanding trend	The Vision prioritizes local workforce empowerment, skill development, and continuous education for healthcare professionals.	Suleiman & Ming, 2025; Alqusumi, 2024; Nair et al., 2024
	Leadership and innovation capacity	Growing trend	Leadership development and innovation-centered management are key drivers sustaining transformation outcomes.	Alqusumi, 2024; Mani & Goniewicz, 2024; Yousef et al., 2023

The analysis of results showcases systematic and long-term reforms on several healthcare dimensions under the Saudi Vision 2030. Governance reforms were the most frequently reported theme showing the Kingdom's commitment to ensure restructuring of administrative frameworks and regulatory accountability. Studies by Alfawaz et al. (2022) and Nair et al. (2024) indicate significant progress in institutional capacity and policy standardization.

There was also a strong focus on financing and privatization where we have seen momentum in developing PPPs and value-based purchasing models. While these initiatives promote efficiency and innovation, a number of studies mentioned the clear need for better financial regulations in order to provide fair access among socioeconomic groups.

The Model of Care (MoC) remains a key reform policy, which advocates for preventive, integrated and patient-centered healthcare. The empirical evidence from Yousef et al. (2023) and Izzuldeen et al. (2023) showed a significant increase in coordination between primary and secondary services, and it is of good quality of care continuity.

In parallel digital health transformation has exhibited high acceleration. Research shows that the use of telemedicine, electronic health records, and centralized data systems has greatly expanded access to care and ability to monitor its use. However, it is difficult to guarantee interoperability across regional systems.

Finally, workforce development was identified as a key enabler of the success of Vision 2030. Initiatives to strengthen training, leadership and localization have increased human capital in healthcare but need to be sustained to address the skills gaps and ensure retention of specialized professionals.

Overall, the results show that the transformation of the healthcare system in Saudi Arabia is progressing in a strategic and evidence-based way, laying the groundwork for a sustainable and equitable healthcare system. These findings combined serve the overall goal of Vision 2030 - to build a high-performing, value-based, and patient-centered health system.

## **Discussion**

The results of this systematic review reinforce the impressive progress made under the Saudi Vision 2030 Health Sector Transformation Program (HSTP) whilst drawing attention to remaining challenges in implementation as well as sustainability of policy. Overall, the ten main studies that have been included in this review indicate that the Saudi healthcare system is in a state of broad transformation from a centrally managed, curative-focused model towards a value-based, preventive and patient-centered model. Reforms have been targeted at five essential areas - governance, financing, service delivery, digital transformation and workforce development - that are consistent with the high level objectives of Vision 2030.

Governance reform is still a milestone achievement. As a result, studies such as Alfawaz et al. (2022) and Memish et al. (2022) show that evidence-based policymaking and accountability processes strengthen the capacity of national governance. The creation of the National Guidelines Center and implementation of performance metrics across health clusters represent a move towards standardization and transparency. These findings are reinforced by Mani & Goniewicz (2024) and Suleiman & Ming (2025), which point to the development of institutional autonomy and better regulatory oversight as critical enablers of transformation.

The reform of the financing of healthcare and the privatization has also been transformative under the Vision 2030. The reviewed studies show that public-private partnerships (PPPs) and value-based purchasing models are increasingly optimizing the efficiency of healthcare and promoting fiscal sustainability. However, Alasiri & Mohammed (2022) and Nair et al. (2024) warn against full financial independence of clusters, as it must be carefully regulated to ensure that clusters do not suffer from an unequal access. This indicates that while privatization brings about better quality of service, the equitable health financing systems need to be on the national agenda.

One of the biggest achievements reported from studies is the adoption of the Model of Care (MoC). Yousef et al. (2023) and Izzuldeen et al. (2023) also found that MoC interventions have enhanced the level of coordination between primary, secondary and tertiary levels of care, for holistic and integrated patient management. Similarly, Chowdhury et al. (2021) documented an early benefit in the service accessibility and clinical outcomes after the initiation of the MoC.

Digital transformation has become one of the key agents of modernization. Memish et al. (2022) and Alqusumi (2024) highlight the broad adoption of telemedicine, electronic health records, and digital innovation platforms for enhancing accessibility and assisting informed choices. These developments have not only improved operational efficiency; they can also fill the gap between geographic locations in service delivery - particularly in rural and underserved areas.

Finally, workforce is still critical to sustainable change. Suleiman & Ming (2025) and Alqusumi (2024) point out ongoing initiatives of workforce localization, leadership development, and on-going professional training. Yet, the maintenance of skill shortages, especially in specialized fields, suggests the importance of ongoing investment in education and training programs.

Altogether, the evidence suggests that the Vision 2030's medical care policies are being put into action and having demonstrable success. Nevertheless, the reform process is dynamic and needs to be evaluated continuously, so as to guarantee implementation fidelity, equity and quality in all regions.

## **Future Directions**

Anticipatory action should build on improving implementation fidelity, that is, ensuring that policies are reliably translated into practice throughout different healthcare clusters. The development of monitoring and evaluation frameworks will provide for the more precise measurement of transformation outcomes, especially in rural and under-served communities.

Digital infrastructure must also develop in a way which is interoperable between national health information systems to maximize data use and enhance coordination between the public and private sectors. Additionally, building workforce capacity through targeted educational programs and leadership development continues to be critical to sustained long-term transformation.

Additionally, patient-level studies are needed to assess patient-level outcomes such as satisfaction, safety, and quality of care measures to better understand the effects of the reform. Cross-sector collaboration between academic institutions, policymakers, and private entities will increase the level of innovation while ensuring Saudi Arabia's healthcare system continues to advance in line with international best practices.

### **Limitations**

There are a number of limitations of this systematic review. First, the inclusion of mostly qualitative and policy-based studies means causal relations between specific Vision 2030 initiatives and measurable health outcomes cannot be generalized as easily. Second, differences in data quality and methodology between the included studies may have caused some interpretative bias. Third, while a number of efforts were made to consult grey literature and official reports, some studies of unpublished and unpublished evaluations that are relevant might have been overlooked due to public access limitations.

Moreover, empirical patient level evidence is scarce and most of the evidence focuses on national and organizational levels. Future systematic reviews that include longitudinal studies and mixed-methods studies will help address these gaps by providing a more holistic assessment of the impact of the policy, and system performance.

### **Conclusion**

The Saudi Vision 2030 has provided a strong foundation for transforming the healthcare system in Saudi Arabia towards an efficient, equitable, and patient-focused system. The synthesis of the evidence of ten primary studies revealed that the Health Sector Transformation Program (HSTP) has made significant progress on governance, financing, digital health and service delivery. The Model of Care remains the foundation for reform, which focuses on preventive care, integrated service delivery, and better patient experience.

However, the review also points out continued challenges of financing equity, workforce readiness, and digital integration across all regions. To sustain progress, the healthcare system will need to prioritize the ongoing evaluation of the system, adaptive governance, and inclusive policy implementation. By focusing on these priorities, Saudi Arabia is well on its way to meeting the Vision 2030 goal of creating a sustainable and high-performing healthcare system that meets the needs of its population, and that can be used as a model for health reform throughout the region.

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### **References**

1. Ahmed, Y. A., Zakri, I. A., Aldawsari, B. M., Alotaibi, M. S. M., Alshammri, B. K., Alenazi, M. R., Alruwaili, A. M., Alzamil, M. M., & Alshehri, S. A. (2024). The Future of Healthcare and Health Transformation in Saudi Arabia: Challenges and Opportunities. *Journal of Ecohumanism*, 3(8). <https://doi.org/10.62754/joe.v3i8.5530>
2. Al Khashan, H., Abogazalah, F., Alomary, S., Nahhas, M., Alwadey, A., Al-Khudhair, B., Alamri, F., Aleisa, N., Mahmoud, N., & Hassanein, M. (2021). Primary health care reform in Saudi Arabia: progress, challenges and prospects. *Eastern Mediterranean Health Journal*, 27(10), 1016–1026. <https://doi.org/10.26719/emhj.21.042>
3. Alasiri, A. A., & Mohammed, V. (2022). Healthcare Transformation in Saudi Arabia: An Overview Since the Launch of Vision 2030. *Health Services Insights*, 15(1), 117863292211212. <https://doi.org/10.1177/11786329221121214>

4. Albaher, Z., & Alqurashi, H. (2024). Primary Healthcare Centre Improvement and Privatisation in the Kingdom of Saudi Arabia: A Systematic Review. *Cureus*, 16(12).
5. Alfahad, A. H., Alabbas, Y. S., ALabbas, H. S. M., Abukhashbah, T. H., Alabdali, A. A., Alfatieh, Q. M. H., Bashawri, E. A., Hadidi, H. T. H., Junaid, R. M. A., & Alhazmi, K. M. A. (2024). Evaluating the Impact of Saudi Vision 2030 on Healthcare Investment: A Comprehensive Review of Progress and Future Directions. *Journal of Ecohumanism*, 3(8). <https://doi.org/10.62754/joe.v3i8.4774>
6. Alfawaz, A. A., Salman, K. A., Alotaibi, F. H., Almogbel, F. S., Al-Jaroudi, D., Alrowily, M. J., Derkaoui, A. B., Alqahtani, A. S., Fadlallah, R., Jamal, D., El-Jardali, F., & Memish, Z. A. (2022). Baseline Assessment of Health Research Systems in Saudi Arabia: Harnessing Efforts and Mobilizing Actions. *Journal of Epidemiology and Global Health*. <https://doi.org/10.1007/s44197-022-00058-0>
7. Alhakami, H., Baz, A., Al-shareef, M., Kumar, R., Agrawal, A., & Ahmad Khan, R. (2023). A Framework for Securing Saudi Arabian Hospital Industry: Vision-2030 Perspective. *Intelligent Automation & Soft Computing*, 0(0), 1–14. <https://doi.org/10.32604/iasc.2023.021560>
8. Aljerian, N. A., Anas Mohammad Almasud, AlQahtani, A., Kholood Khaled Alyanbaawi, Sumayyah Faleh Almutairi, Alharbi, K. A., Alshahrani, A. A., Muayad Saud Albadrani, & Alabdulaali, M. K. (2025). Exploring a Systems-Based Model of Care for Effective Healthcare Transformation: A Narrative Review in Implementation Science of Saudi Arabia's Vision 2030 Experience. *Healthcare*, 13(19), 2453–2453. <https://doi.org/10.3390/healthcare13192453>
9. Alqusumi, F. (2024). Transforming Healthcare in Saudi Arabia through Strategic Planning and Innovation. *International Journal of Integrated Science and Technology*, 2(2), 61-74.
10. Bokhari, R. M. (2025). INTEGRATING PRIVATIZATION, DIGITAL HEALTH, AND SUSTAINABILITY: A HYBRID FRAMEWORK FOR HEALTHCARE TRANSFORMATION UNDER SAUDI ARABIA'S VISION 2030. *Lex Localis - Journal of Local Self-Government*, 23(10), 1512–1525. <https://doi.org/10.52152/801460>
11. Chowdhury, S., Mok, D., & Leenen, L. (2021). Transformation of health care and the new model of care in Saudi Arabia: Kingdom's Vision 2030. *Journal of Medicine and Life*, 14(3), 347–354. <https://doi.org/10.25122/jml-2021-0070>
12. Izzuldeen, J., Tagrid Masnad A Alenezi, Abdullah, N., Ghannam, Nojood Moufreh A Alenezi, Fahad, M., Hanan, Hanan, Hamoud, Abdulrahman, Saleh, H., Bader, & Mohamad, A. (2023). Saudi Arabia's New Care Model and the Transformation of Health Care Kingdom's Vision 2030. *International Journal of Medical Science and Clinical Research Studies*, 03(12). <https://doi.org/10.47191/ijmscrs/v3-i12-48>
13. Mani, Z. A., & Goniewicz, K. (2024). Transforming Healthcare in Saudi Arabia: A Comprehensive Evaluation of Vision 2030's Impact. *Sustainability*, 16(8), 3277. <https://doi.org/10.3390/su16083277>
14. Memish, Z. A., Alqahtani, A. S., Al-Azemi, N., Abu Alhamayel, N., Saeedi, M., Abuzinada, S., Albarakati, R. G., Natarajan, S., Alvira, X., Bilmoria, K., & Brunnhuber, K. (2022). A New Era of National Guideline Development in Saudi Arabia. *Journal of Epidemiology and Global Health*, 12(4), 373–379. <https://doi.org/10.1007/s44197-022-00076-y>
15. Nair, K. S. (2019). Role of health economics research in implementing Saudi Arabia's health sector transformation strategy under vision-2030. *Journal of Economics and Sustainable Development*, 10(18), 92-99.
16. Nair, K. S., Mughal, Y. H., Albejaidi, F., & Alharbi, A. H. (2024). Healthcare Financing in Saudi Arabia: A Comprehensive Review. *Healthcare*, 12(24), 2544–2544. <https://doi.org/10.3390/healthcare12242544>
17. Rahman, R., & Al-Borie, H. M. (2020). Strengthening the Saudi Arabian healthcare system: Role of Vision 2030. *International Journal of Healthcare Management*, 14(4), 1–9. <https://doi.org/10.1080/20479700.2020.1788334>
18. Suleiman, A. K., & Ming, L. C. (2025). Transforming healthcare: Saudi Arabia's vision 2030 healthcare model. *Journal of Pharmaceutical Policy and Practice*, 18(1). <https://doi.org/10.1080/20523211.2024.2449051>

19. Yousef, L., Dannah AlAngari, Rahaf AlShehri, AlSharif, B., Bayameen, O., & Zeinab Alnemer. (2023). Healthcare transformation journey in the Eastern Region of Saudi Arabia: an overview, challenges and lessons learned. PubMed, 16(4), 583–592. <https://doi.org/10.25122/jml-2023-0010>