



Physician and Nurse Compensation Systems: A Systematic Review with Policy Implications for the Iranian Healthcare Sector

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Abstract

Context: Financial incentives represent a key policy lever shaping workforce motivation and behavior in health systems.

Objectives: This systematic review examines physician and nurse compensation systems across countries to identify prevailing payment models and their policy implications, thereby providing evidence to inform provider payment system reforms in Iran.

Data Sources: A systematic literature search was conducted across major English-language databases (Web of Knowledge, ProQuest, PubMed, Emerald, and Scopus) and Persian databases (SID, MagIran, Google Scholar) for the period 2000–January 2026. Search terms focused on physician and nurse payment models.

Study Selection: Study quality was appraised using the Critical Appraisal Skills Program (CASP) checklist for qualitative studies and the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist for quantitative research.

Data Extraction: Extracted data were synthesized and organized in comparative tables by provider type (physician or nurse) and level of service delivery within the health system.

Results: The search identified 2,205 studies, of which 29 articles and 4 policy reports from 17 countries met the inclusion criteria. Payment systems were classified into three levels: (1) Core stand-single payment models, (2) incentive-linked payment systems, (3) bundled payment models, which will be elaborated on in the following sections. In addition, systems were classified as retrospective (rewarding past activity) or prospective (linked to predefined targets). Although fixed salary, capitation, and fee-for-service (FFS) remain the most common models, there is a growing shift toward blended approaches that emphasize outcomes, accountability, and flexibility.

Conclusions: No single provider payment model is universally optimal. In Iran, evidence supports gradual, context-sensitive reform through hybrid payment arrangements aligned with service type, institutional capacity, and digital readiness, rather than premature large-scale adoption of fully value-based or performance-based models.

Keywords: Physician, Nurse, Payment System, Health System, Compensation Systems

1. Context

Financial incentives play a pivotal role in shaping individual motivation and professional behavior within organizations. From a psychological perspective, money satisfies both direct and indirect human needs, making it one of the most powerful motivational tools (1). In the healthcare sector, financial incentives strongly influence individual and institutional behavior, shaping not only the structure of healthcare systems but also the volume and quality of services delivered (1). The analysis of provider compensation is fundamentally grounded

in Incentive Theory, which posits that the design of payment systems determines the motivational orientation of healthcare professionals. Provider responses to these financial structures directly shape professional behavior, influencing levels of effort, service selection, and adherence to quality standards (2).

Since the 1980s, the design of provider payment systems has become a central issue in health policymaking across both developed and developing countries (3). High-income nations have implemented a variety of compensation models to control costs and enhance efficiency, including fixed salaries, fee-for-

service (FFS) arrangements, capitation, and performance-based payments (1,3).

In Iran, a substantial share of healthcare expenditure is devoted to the remuneration of healthcare workers, particularly physicians and nurses (3). This pattern mirrors broader trends observed in lower-resource settings; for example, a 2023 report covering 33 low- and middle-income African countries found that, on average, health workforce remuneration accounts for approximately 29% of total health expenditure (4). Consequently, the development of a scientifically grounded, equitable, and efficient payment system for healthcare professionals is essential. Such a system has direct implications for national health budgets and plays a critical role in supporting fair and effective service delivery (5).

An optimized payment model can yield multiple benefits, including attracting and retaining skilled personnel, enhancing motivation, ensuring legal compliance, reducing unnecessary expenditures, and facilitating the achievement of organizational goals (3, 6). Achieving these outcomes requires a clear understanding of existing payment systems and lessons drawn from successful international experiences (7). Moreover, payment systems must ensure adequate income for healthcare providers, incentivize high-quality care, and reduce migration toward higher-paying professions or sectors.

Despite the growing importance of this topic, relatively few descriptive studies have comprehensively examined provider payment systems, particularly in high-income settings. Furthermore, there is a lack of comprehensive research assessing the strengths and weaknesses of compensation models specifically for physicians and nurses. Given the profound influence of payment systems on productivity, access to care, and service quality, this gap presents a significant challenge for healthcare policymakers. Recent cross-country evidence indicates that fragmented or poorly aligned payment systems undermine accountability and efficiency, whereas well-designed hybrid models are better positioned to balance cost containment, quality improvement, and provider motivation (2, 6). These findings highlight the need for context-sensitive payment reforms, particularly in middle-income health systems such as Iran's. Accordingly, rigorous comparative research is warranted to evaluate

alternative compensation models and extract evidence-based insights.

2. Objectives

The present study aims to conduct a systematic analysis of physician and nurse compensation systems across countries and to offer informed recommendations for reforming Iran's healthcare payment structure.

3. Data Sources

This study employed a comparative approach to examine how different countries structure compensation systems for physicians and nurses. The analysis was guided by the population, intervention, comparison, outcomes (PICO) framework: Population—specialists, general practitioners, and nurses; Intervention—healthcare compensation methods; Comparison—different types of payment systems; and Outcomes—the effects of compensation methods on healthcare delivery. Relevant studies were identified using both English and Persian keywords, applied individually or in combination with Boolean operators (English occupation keywords AND payment system keywords AND healthcare service delivery level keywords). The search covered publications from January 2000 to January 2026 (Table 1).

The following English-language databases were searched: Web of Knowledge, ProQuest, PubMed, Emerald, and Scopus. In addition, Persian databases and search platforms—including SID, MagIran, and Google Scholar—were queried. To enhance the comprehensiveness of the search, reference lists of included studies and relevant gray literature were also reviewed. This process increased search sensitivity and facilitated the identification of potentially relevant studies not indexed in the selected databases.

4. Study Selection

Study selection was independently performed by three members of the research team across three stages: title screening, abstract review, and full-text assessment. Disagreements were initially resolved through discussion to achieve consensus; when consensus could not be reached, the corresponding author served as the final adjudicator. The methodological quality of qualitative studies was assessed using the Critical Appraisal Skills Program (CASP) checklist, while

Table 1. Keywords and Search Strategy

Criteria	Keywords and Search Strategy
Occupations	Physician* OR Specialist* OR Nurse*
Payment system	Pay OR "Pay* System*" OR "Pay* Structure*" OR "Pay* Mechanism*" OR "Pay* Method*" OR "Pay* Classification*" OR Payment OR "Payment* System*" OR "Payment* Structure*" OR "Payment* Mechanism*" OR "Payment* Method*" OR "Payment* Classification*" OR Compensation* OR "Compensation System*" OR "Compensation Mechanism*" OR "Compensation Classification*" OR Remuneration* OR "Reimbursement Mechanisms*" OR "Reimbursement*" OR Wage* OR Salary* OR Capitation* OR Fee-for-Service OR Income*
Healthcare service delivery levels	Hospital* OR "Health* System*" OR "Health* Service*" OR "Health House*" OR "Healthcare*" OR "Health Care*" OR "Healthcare System*" OR "Health Care System*" OR "University Medical*" OR "Medical Center*" OR "Health Services"

quantitative studies were evaluated using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist. All quality appraisal decisions were finalized through team discussion with the aim of reaching consensus (8, 9).

5. Data Extraction

5.1. Data Analysis and Synthesis

Data from the included studies were synthesized using a structured narrative synthesis approach (10). This method was selected due to the heterogeneity of study designs across the included literature and enabled a comprehensive, context-sensitive interpretation of the findings.

5.2. Inclusion Criteria

Studies published in English or Persian between January 2000 and August 2023.

Studies published in peer-reviewed scientific journals or official institutional websites.

5.3. Exclusion Criteria

Theoretical papers, letters to the editor, and news articles.

Studies for which full-text access was not available through official sources despite follow-up efforts (two email attempts).

6. Results

An extensive search across multiple databases and online resources yielded a total of 2,205 articles and reports from 17 countries. After applying the predefined eligibility criteria, 30 articles and 4 reports—comprising a total of 33 studies—were included in the final analysis (Figure 1).

6.1. Characteristics of Included Studies

A notable characteristic of the included studies is their recency, with 82% published within the past decade. This trend suggests increasing scholarly attention to the growing complexity of healthcare systems, expanding service delivery models, and the role of compensation systems in influencing provider motivation, performance, quality of care, and cost efficiency.

Geographically, the majority of studies originated from the Americas (55.6%), followed by Asia and Europe (each accounting for 22.2%). This distribution reflects the leading role of developed regions in research on compensation systems and highlights the need for greater empirical focus on developing countries.

Regarding study design, 37% employed quantitative methods, 25.9% were qualitative, 7.5% were systematic reviews, 7.4% used mixed-methods approaches, and 22.2% were classified as reports. Most studies focused on physician payment systems, with comparatively fewer addressing nurse compensation. This imbalance underscores the central role of physicians in care delivery and clinical decision-making.

6.2. Payment System

According to research findings, there are several payment systems utilized to remunerate physicians and nurses in hospitals. Appendix 1 provides a summary of the characteristics of the articles, payment formulas, and strengths and weaknesses of the job payment systems in the retrieved articles. In total, payment systems were classified into three levels: (1) Core stand-single payment models, (2) incentive-linked payment systems, (3) bundled payment models, which will be elaborated on in the following sections (3, 11). In addition, systems were classified as retrospective

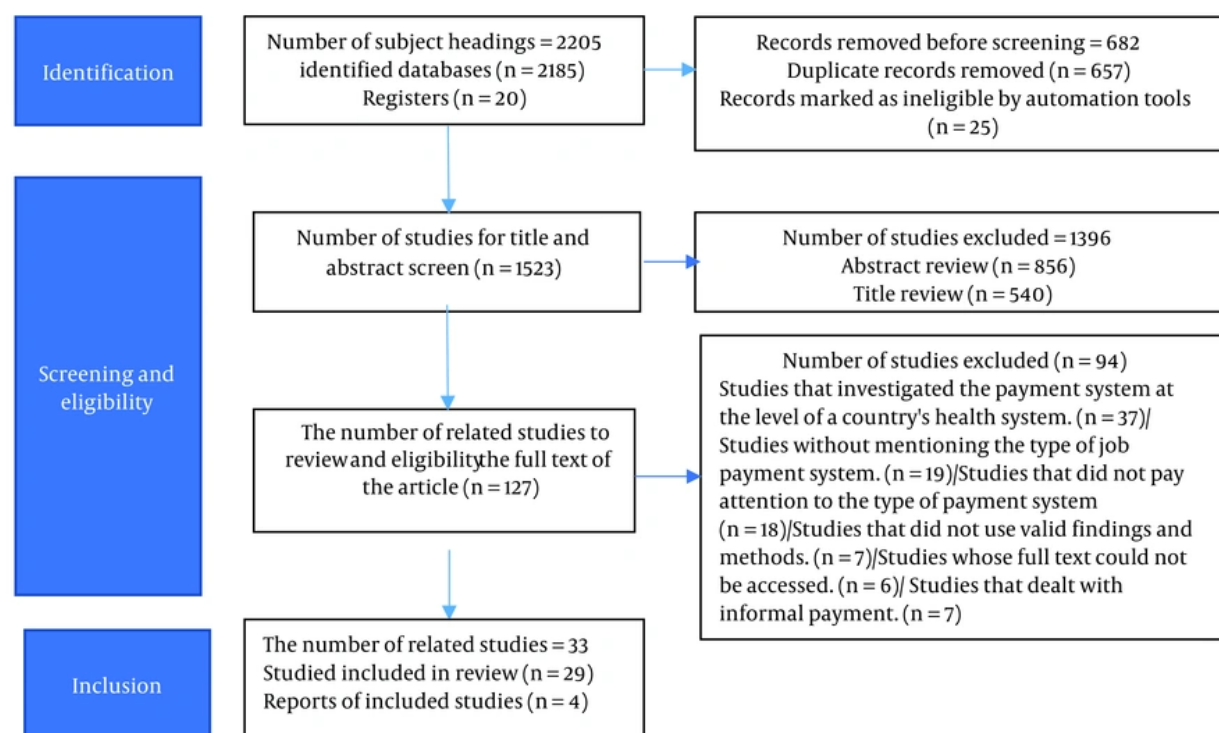


Figure 1. Flowchart of study selection

(rewarding past activity) or prospective (linked to predefined targets).

6.2.1. Single and Mixed Payment System

6.2.1.1. Level 1: Single (Core) Payment System

Single payment systems entail the utilization of a single payment system to transfer funds from a financial source (government, insurance organizations, or patients) to healthcare providers (physicians and nurses). According to the reviewed studies, only two single payment systems—performance-based payment and salary—have been used to compensate nurses (3, 11). Additionally, the findings identified six primary payment systems used for compensating physicians, as detailed below:

6.2.1.1.1. Fee-for-Service (FFS)

Across the included studies, FFS was identified as a retrospective payment system under which physicians are reimbursed for each service delivered according to a predetermined fee schedule (12). This payment model was reported to be commonly used for medical specialists in countries such as the United States and the Netherlands during the period from 2012 to 2015 (13-15), although several studies noted a subsequent shift toward performance-based payment models in more recent years (16-19). FFS was not typically reported as a payment system for nurses.

The reviewed evidence indicated that payment calculations under FFS are influenced by multiple factors, including service volume, number of physicians, level of care, treatment costs, patient health status, and the type of services provided (3, 13). Reported advantages of FFS included flexible working hours, greater physician autonomy, reduced adverse effects for patients, and low financial risk for providers (12). However, multiple studies highlighted important

limitations of FFS, particularly its association with over-provision of services, reduced time spent per patient, and increased healthcare costs (12, 13, 17, 20). Qualitative insights further reported that these volume-based incentives often translate into significant time pressure, a perceived prioritization of quantity over quality, and contribute to provider moral distress and burnout (21). Some studies reported that the use of regressive tariffs—where reimbursement decreases as service volume increases—may help mitigate these effects (13, 21). The included literature consistently reported that under FFS, providers bear minimal financial risk, while financial risk is largely transferred to insurers and patients (17, 20, 21). Consequently, several studies recommended combining FFS with other payment systems to better balance incentives and improve system performance (20–22).

6.2.1.1.2. Salary

Across the included studies, salary-based payment was described as a widely used compensation method in the medical field, typically involving a fixed and standardized monetary amount (11, 23) with additional payments reported for overtime work, weekend shifts, or night shifts in some settings (24, 25). This payment system was most commonly reported for nurses (24, 26) and for physicians employed in academic and public sector settings (12, 25). From a system-level perspective, the reviewed evidence indicated that salary-based payment is associated with income stability and predictability, while offering relatively limited financial incentives for productivity or efficiency. Several studies characterized salary-based models as well suited to roles involving standardized tasks and team-based care, particularly in nursing practice (3, 26). The included literature also reported substantial variation in salary levels, influenced by factors such as geographic location, physician specialty, gender, and labor market conditions. For nurses, salary variation was reported to be associated with educational background, job role and responsibilities, employment status, age, gender, and regional differences (27). Multiple studies suggested that inadequate salary levels may negatively affect workforce motivation and retention, and may indirectly contribute to unfavorable patient outcomes (28).

6.2.1.1.3. Bundled Payment (Capitation)

Across the included studies, capitation payment was described as a prospective reimbursement method under which physicians are compensated based on the number of individuals enrolled under their care (11). However, enrollment under capitation was reported to be influenced not only by the number of covered individuals but also by patients' motivation, preferences, and attitudes toward service utilization. Several studies noted that a prerequisite for implementing capitation is the establishment of a dedicated financial or credit fund to manage and disburse payments.

The reviewed evidence indicated that capitation may lead to patient disenrollment and expose providers to financial risk, particularly when discrepancies arise between expected and actual service utilization, resulting in a mismatch between service volume and appropriate care delivery (11, 12). These issues were frequently cited as key criticisms of capitation models, as they may inadequately address the needs of high-risk populations and potentially limit access to care for patients with complex and costly conditions (11, 12). Recent studies emphasized the importance of risk-adjustment mechanisms to mitigate incentives for risk selection and under-provision of care under capitation schemes (3). As reported in the literature, capitation was generally considered more suitable for population-level healthcare planning and integrated delivery systems than for individual providers (25). An advantage consistently reported across studies was the potential of capitation to encourage preventive care, as reducing avoidable morbidity may lower future costs and improve financial sustainability by decreasing unnecessary service utilization (12). Nevertheless, without effective monitoring and evaluation systems, several studies warned that capitation may also lead to reduced care intensity, lower service quality, and restricted patient access (25).

6.2.1.2. Level 2: Incentive-Linked Payment Mechanisms

Incentive-linked payment systems are primarily implemented as embedded components within core provider payment systems rather than as standalone reimbursement models. Accordingly, they are treated in this review as internal incentive arrangements, most commonly operationalized through pay-for-performance (P4P) programs or broader value-based payment (VBP) schemes linked to

predefined quality indicators, service volume metrics, or clinical outcomes (16). Overall, the evidence suggests that such incentives can influence provider behavior, particularly by increasing service provision and work intensity; however, systematic reviews report heterogeneous and context-dependent effects on quality of care and patient outcomes (3).

In P4P programs, physician and nurse remuneration is tied to predefined quality targets, typically measured using weighted performance indicators (25). Value-based payment models extend this approach by emphasizing the “value of care,” encompassing quality, efficiency, and patient outcomes, and are often aligned with strategic purchasing frameworks. Evidence from the United States indicates that, when appropriately designed and supported by adequate institutional capacity, P4P and VBP programs can improve selected process-related quality indicators, enhance resource efficiency, and increase provider productivity (3, 24, 25, 29).

In contrast, experiences from other countries highlight persistent implementation challenges, including weak performance measurement systems, limited data infrastructure, low provider acceptance, and reduced transparency due to indicator complexity (28, 30). Taken together, the evidence indicates that neither P4P nor VBP functions effectively as a standalone payment model (22, 31). Experimental evidence from China further shows that internal salary incentives linked to hospital insurance payments can influence physician behavior even in the absence of formal P4P or VBP schemes, increasing service volume and productivity while having limited effects on care quality (26).

6.2.1.3. Level 3: Hybrid Payment Systems

The reviewed evidence indicates that fixed payment systems are most commonly implemented as components of hybrid payment systems, in which VBP and P4P are used to link provider remuneration to performance and value-related outcomes. These models offer greater flexibility by allowing payments to be adjusted according to factors such as working hours, patient volume, quality of care, and the mix of services delivered (11, 12). Hybrid payment arrangements have been reported across a wide range of health systems, including Canada, the United States, several Eastern and

Western European countries, and countries in Oceania (2, 3, 19).

Across the included studies, the reported effectiveness of mixed payment systems was influenced by multiple contextual and system-level factors, including health system structure, community health needs, technological capacity, incentive alignment for physicians, prevailing economic and social conditions, models of care delivery, and national health policies (11, 12). Consequently, evaluations of these models relied on a broad set of performance indicators, such as cost containment (e.g., total healthcare expenditures), quality of care (e.g., patient satisfaction, adherence to treatment, and clinical outcomes), service utilization patterns (e.g., visit frequency and referral behavior), provider productivity, and equity in access to healthcare services (11, 12). Consistent with findings from a systematic review of systematic reviews, the effectiveness of hybrid payment models varies substantially across settings and depends on system design and implementation context (3). In mixed payment systems, a stronger capitation component reduces reliance on FFS volume and improves cost awareness, but may increase under-provision risk (32).

The included studies consistently reported several advantages of mixed payment systems, including improved cost control, enhanced provider productivity and motivation, better service quality, reduced incentives for induced demand, more effective referral mechanisms, greater flexibility, improved financial integration, and strengthened team-based care (26, 33). However, challenges such as higher implementation costs and the risk of unnecessary service provision were also reported, with several studies emphasizing the importance of payment design, incentive alignment, and monitoring mechanisms in mitigating these risks (11, 34).

6.2.2. Retrospective and Prospective Payment Systems

Across the included studies, retrospective payment systems were described as reimbursement arrangements in which providers are compensated after healthcare services have been delivered, with payments calculated based on the actual volume or intensity of care provided. These models typically included FFS, where each clinical encounter or procedure is billed separately, and per diem payment systems, under which

Table 2. Payment Systems for Selected Occupations in the Countries Studied

Study Countries	Payment Systems
France	Nurse in public hospitals: Salaries and wages (27)
Canada	Specialist doctor in a private hospital: Mix method such as: Salary and efficiency (12, 23)-mix method (20)-capitation, FFS and performance index payment (32); A hybrid model: Specialist physician in a public hospital (19); Nurses in public hospitals: Salaries and wages (24)
Korea	Doctor in public hospital: Payment based on case days of stay (36)
Germany	Doctor: Salary (24, 25); Nurses in public and private hospitals: Salaries and annual benefits (25)
Iran	In the public sector of Iran, from the combined methods are used to pay for selected jobs (35, 37).
America	Specialist in a public hospital: Salary and provision of fringe benefits based on P4P (30, 38); Physician in public hospital: Paying physician based on location based on salary (31), alternative payment models (18, 24); Faculty doctor: Salary and benefits (22); Specialist in a public hospital: Salary and provision of fringe benefits based on P4P (30, 38); Specialist physician in a private hospital: FFS and P4P (15, 17, 34); Nurse: Salary (25, 39, 40), P4P (30, 41)
Germany	Doctor: Salary (25, 29); Nurse in public and private hospitals: Salaries and annual benefits (24)
China	Government hospital: Salary (28, 33), P4P (42); Nurse in public hospital: salary, P4P (11); Specialist physician: Hybrid payment model (26)
Netherlands	Specialist doctor in the government hospital: FFS, salary and wages (13, 14, 25); Nurse: Salaries and overtime (24)
Czech Republic	Doctor: Salaries and benefits based on the doctor's education per capital (25); Nurse in public and private hospital: Salaries and benefits (24)
Denmark	Doctor: Salary (25); Nurse: Salary and annual benefits (24)
Estonia-Finland	Nurses in public and private hospitals: Salaries (24); Doctor: Salary (25) and over time (24, 28)
Iceland	Doctor: Salary and income from the office (25); Nurse in public hospitals: Salaries (24)
Belgium	Doctor: salary and performance (25); Nurse: Salaries and wages (24)
Norway	General practitioners: FFS (21)

Abbreviations: FFS, fee-for-service; P4P, pay-for-performance.

hospitals receive a standardized daily rate regardless of the specific resources utilized during care delivery (2, 11).

In contrast, the reviewed studies characterized prospective payment systems as reimbursement mechanisms in which payment levels are established prior to service delivery, most commonly through fixed or risk-adjusted payments. Reported examples included capitation models, in which providers receive a predetermined per-member-per-period payment independent of service volume; case-based or diagnosis-related group (DRG) systems that assign standardized payments based on clinical classifications; and salary-based models, where healthcare professionals are remunerated through fixed wages not contingent on the quantity of services delivered (11).

These distinctions align with evidence indicating that retrospective payment models such as FFS are associated with increased service volume, whereas prospective models shift financial risk toward providers and may affect care intensity (3, 20). Beyond financial risk allocation, evidence suggests that fragmented combinations of retrospective and prospective payments can generate conflicting incentives, leading to reduced care coordination and weakened team-based practices—particularly in hospital settings with high

interprofessional dependency (35). Based on the proximity and comparison of the output of the studies, the payment systems for the selected jobs by the studied countries are summarized in Table 2.

A more detailed review of Table 2 shows meaningful variation in how countries finance healthcare personnel. Countries with publicly financed systems tended to rely mainly on salary-based payments with limited variability, especially for nurses and general practitioners. Specialist physicians in countries with more market-oriented health sectors often received mixed payments, combining salary, FFS, and P4P elements. Performance and value-based components were more common in countries undergoing health-system reforms, such as China and Korea. Nurses showed the highest homogeneity across countries, with salaries being the dominant payment system, sometimes accompanied by benefits or limited P4P incentives. Results show salary and P4P are popular methods. Table 3 further breaks down the payment systems for each specific job category.

Table 3 shows various payment systems for specialists, general practitioners, and nurses. For instance, salary and P4P are the most frequently used payment systems for general practitioners and

Table 3. The Rate of Using a Payment System Separately in the Health System ^a

Payment Methods	General Practitioner	Specialist	Nurse
Salary	Much	Much	Much
Per capita	Low	Low	Low
P4P and VBP	Much	Much	Medium
FFS	Medium	Medium	Low
Per period payment	Low	Low	Low
Hybrid	Medium	Medium	Low

Abbreviations: P4P, pay-for-performance; VBP, value-based payment; FFS, fee-for-service.

^a Much: Methods clearly identified as frequently used or dominant across countries; Medium: Methods reported as used but not predominant and appearing with moderate frequency; Low: Methods reported infrequently or only in a few country cases.

specialists, while per capita or mixed methods are not as commonly utilized in this category.

7. Conclusions

Payment systems for physicians and nurses vary widely across health systems and are shaped by contextual factors such as insurance structures, workforce distribution, and ownership mix. Understanding the determinants of these variations is essential for designing compensation strategies that maximize benefits while minimizing unintended consequences. This study aimed to analyze physician and nurse compensation systems across countries and to offer informed recommendations for reforming Iran's healthcare payment structure.

Evidence shows that payment arrangements should be economically sustainable for patients while accurately reflecting provider performance (29). In Iran, the coexistence of multiple public insurance organizations has resulted in a fragmented financing environment, influencing how payment models function and how effectively incentives are aligned. Public hospitals, which deliver most inpatient services, mainly rely on salary-based or line-item budget systems, whereas private providers predominantly use fee-for-service (FFS). This dual structure, combined with unequal workforce distribution favoring urban areas, necessitates context-sensitive payment reforms (11, 12).

Consistent with previous studies, each payment model presents distinct advantages and weaknesses. Fee-for-service is associated with increased access and service utilization, particularly for priority and underserved services (12), but is also linked to higher resource use and potential over-provision (22, 25).

Salary-based reimbursement offers income stability, improved workforce retention, and reduced turnover, yet is often associated with weaker performance incentives and lower service volume (3, 42). Evidence from Iran indicates that delays in salary payments can further undermine physician engagement and continuity of care. Capitation and bundled payments provide predictable cash flow and can reduce unnecessary services; however, their effects on health outcomes and resource utilization are mixed. Without careful design and monitoring, these models may increase the risk of under-provision (3, 11). Studies suggest that capitation is more suitable for preventive and chronic care settings rather than hospital inpatient services, where operational complexity and case severity require more flexible payment arrangements (11, 12).

Growing evidence supports the use of blended or hybrid payment models that combine salary, FFS, capitation, and performance-based incentives (3). Research by Kurtzman ET and colleagues demonstrated that combining salary and P4P for nurses resulted in improved patient satisfaction and reduced nurse turnover (41). According to Rosalind Kessels and colleagues, clinical effectiveness and patient safety are key performance indicators, while cost control and safety receive comparatively less attention (19). Evidence also shows that adding P4P to traditional FFS suggests that FFS models tend to improve access and service provision, but are frequently associated with increased resource use and unintended consequences (3, 17, 34). Experimental evidence also shows that physician behavior can be significantly influenced by internal hospital incentive structures linked to insurance reimbursements, highlighting the importance of internal payment design within hospitals (26).

Overall, retrospective payment systems such as FFS primarily emphasize access, risk acceptance, patient selection, and service provision, while prospective systems—including salary, capitation, and P4P—focus on cost control and efficiency (17). Hybrid models draw on both approaches and offer greater flexibility to balance competing policy objectives. However, the effectiveness of value-based and performance-linked payments depends heavily on data availability, transparent monitoring, and timely reimbursement. In Iran, the expansion of sophisticated payment models such as P4P and VBP is constrained by limited digital infrastructure. National systems such as Hospital Information System (HIS) and SEPAS are still evolving, limiting the feasibility of outcome-based reimbursement at scale. Consequently, incremental reforms based on hybrid models appear more appropriate, particularly in public teaching hospitals with partial electronic records. Capitation and bundled payments may be better piloted in primary care and family physician programs, where continuity and prevention are central (11, 34).

Multiple factors influence the optimal design of payment systems, including provider characteristics, market structure, patient choice, and regulatory context (11, 12). Evidence suggests that combining salary with performance incentives can enhance motivation and quality only when supported by robust monitoring and timely payments (24, 41, 42). In the absence of these conditions, performance-based incentives may increase administrative burden and generate inequities. Addressing geographic workforce imbalances requires targeted financial incentives, regionally adjusted salaries, and flexible employment arrangements (12, 29).

Looking forward, Iran's payment reform agenda should emphasize gradual, evidence-based implementation of hybrid models tailored to service level and institutional capacity. Team-based payment systems that reward coordinated care among physicians, nurses, and allied health professionals also show promise for improving integration and alignment with universal health coverage goals (7, 11, 34). International experience offers valuable guidance, but successful implementation ultimately depends on alignment with Iran's insurance structure, workforce realities, and digital readiness. No single payment model is universally optimal. Effectiveness depends on health system ownership, financing arrangements, policy priorities (cost control, quality, access), and

governance capacity. Therefore, phased implementation through pilot programs, continuous evaluation, and adaptive design is recommended to balance efficiency, quality, equity, and financial sustainability (21, 34).

Based on the evidence synthesized in this review and considering Iran's fragmented insurance arrangements, public-private duality, and constraints in health information infrastructure, payment reform in Iran should emphasize feasibility and phased implementation. First, the large-scale introduction of fully value-based or outcome-based payment models in public hospitals is likely premature. For Iran, hybrid payment arrangements that combine fixed salaries with limited, administratively simple performance- or activity-based components offer a more feasible and context-appropriate approach, particularly in public teaching hospitals. Second, standalone implementation of capitation or P4P mechanisms should be avoided. Evidence suggests that, in the absence of robust monitoring systems, reliable data, and timely reimbursement, these models are unlikely to be effective and may increase risks of under-provision of care and provider dissatisfaction. Third, hospital-level payment design represents a realistic policy lever. Internal incentive structures that link departmental budgets or staff rewards to insurance payments or unit-level performance can influence provider behavior even without comprehensive system-wide reform. Fourth, payment models should be aligned with service type and level of care. Capitation and bundled payments are more suitable for primary care and chronic disease management, whereas inpatient hospital services—particularly in referral and teaching hospitals—require more flexible hybrid arrangements to accommodate clinical complexity. Overall, payment reforms in Iran should be implemented through pilot programs and accompanied by continuous evaluation of their effects on costs, quality, equity, and health workforce behavior.

This review highlights that no single provider payment model can be universally effective across diverse health system contexts. In Iran, the effectiveness of payment reforms depends less on the formal adoption of internationally promoted models and more on their alignment with institutional capacity, service delivery structures, and workforce realities. Gradual, context-sensitive reforms—centered on hybrid payment arrangements, hospital-level incentive design, and service-specific alignment—offer a pragmatic pathway

toward improving efficiency, motivation, and care quality while minimizing unintended consequences. Future research should employ mixed-methods approaches to assess the cost-effectiveness, equity implications, and operational feasibility of these reforms, integrating standardized qualitative insights with quantitative performance data to support more robust comparative and policy-relevant evidence.

Supplementary Material

Supplementary material(s) is available [here](#) [To read supplementary materials, please refer to the journal website and open PDF/HTML].

Footnotes

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