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International Experience in Establishing State Medical Insurance Systems: Comparative Analysis and Developmental Prospects for Uzbekistan

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Abstract: Background: Uzbekistan stands at a pivotal juncture in its healthcare financing trajectory, actively exploring the architectural foundations for a compulsory state medical insurance system. Despite notable post-independence reforms, the country's health expenditure structure remains heavily dependent on out-of-pocket payments, which accounted for approximately 54.3% of total health expenditure in 2023, a proportion that substantially constrains equitable access to medical services. Objective: This study systematically examines the trajectories and institutional designs of state medical insurance (SMI) systems in eight representative countries across four development archetypes, distilling transferable lessons for Uzbekistan's reform agenda. Methods: A structured comparative policy analysis was employed, integrating documentary review of WHO, World Bank, and OECD datasets, expert interview synthesis, and multi-criteria institutional benchmarking across dimensions of financing, coverage, governance, and equity. Results: The comparative analysis identifies three broad reform pathways relevant to Uzbekistan: a graduated Bismarckian contributory model (as pursued by Georgia and Kazakhstan), a tax-financed national health service approach (as seen in Kyrgyzstan and Turkey), and a hybrid pluralist model (exemplified by South Korea and Germany). Quantitative benchmarking reveals that successful transitions to universal health coverage (UHC) in comparable middle-income economies required a minimum of 7–12 years, sustained political commitment, and progressive cross-subsidization mechanisms to protect low-income groups. Conclusions: Uzbekistan's institutional context, characterized by a relatively young population, a dominant informal employment sector, and nascent administrative capacity, suggests that a phased contributory model with explicit subsidization of vulnerable populations represents the most contextually appropriate entry strategy. A three-stage implementation roadmap spanning 2025–2035 is proposed, alongside priority legislative and governance prerequisites.

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Keywords: state medical insurance; universal health coverage; health system financing; Uzbekistan health reform; comparative health policy; Bismarckian model; out-of-pocket payments; social health insurance.

1. Introduction

The pursuit of universal health coverage (UHC) has become a defining aspiration of contemporary health policy, enshrined in the United Nations Sustainable Development Goals (SDG 3.8) and operationalized through diverse national insurance architectures across the globe. For transitional economies in Central Asia, the design and sequencing of health financing reforms represent particularly consequential decisions, as structural

legacies of Soviet-era Semashko systems continue to shape both institutional capabilities and population expectations [1].

Uzbekistan, with a population exceeding 36 million and a GDP per capita of approximately USD 2,370 in 2024, occupies a middle-income trajectory with aspirations for accelerated economic diversification. The government's Development Strategy 2022–2026 explicitly identifies the establishment of a compulsory medical insurance system as a priority structural reform. Yet the path from stated intention to functional implementation is strewn with technical, political, and institutional complexities that have derailed analogous reform efforts in comparable settings [2].

The fiscal architecture of Uzbekistan's health sector reveals significant structural vulnerabilities. While general government health expenditure has grown from 2.8% to 3.6% of GDP between 2018 and 2023, out-of-pocket payments remain stubbornly dominant at 54.3% of total health expenditure (THE), far exceeding the WHO benchmark of 20% that signals the onset of catastrophic financial hardship risks for households. This pattern reflects both insufficient pooling mechanisms and persistent gaps in the publicly financed benefit package [3].

Against this backdrop, the international literature on health insurance transitions offers a rich, if contested, empirical record. Scholarly consensus has coalesced around several propositions: that no single "optimal" model exists; that contextual fit matters enormously; that sequencing decisions are frequently irreversible; and that the political economy of reform is as determinative as technical design [4]. Yet systematic comparative analyses anchored in the specific institutional realities of Uzbekistan remain notably sparse, representing a meaningful gap in both the academic and policy-practitioner literatures [5].

This article addresses that gap through a structured comparative examination of state medical insurance trajectories in eight countries grouped into four archetypes, followed by a multi-criteria assessment of their transferability to Uzbekistan's context. Our analysis is organized around four research questions: (1) What financing architectures have proven most effective in achieving rapid coverage expansion in middle-income economies? (2) What governance structures are necessary to sustain insurance system integrity? (3) How have successful reformers managed the transition risks associated with the informal economy and low contributory capacity? (4) What institutional prerequisites must Uzbekistan establish before a functional SMI system can operate at scale?

2. Theoretical Framework and Analytical Approach

The conceptual scaffolding for this analysis draws upon three intersecting bodies of scholarship. First, Enthoven's (1978) managed competition framework, subsequently elaborated by van de Ven and Schut (2008), provides the microeconomic foundation for understanding how insurance market design affects efficiency and equity. Second, the political economy literature on welfare state development, particularly Esping-Andersen's) typology of welfare regimes and its extensions to non-Western contexts (Gough, 2004), illuminates why structurally similar countries nevertheless pursue divergent reform trajectories. Third, Kutzin's () health financing functions framework, organizing analysis around revenue collection, fund pooling, and purchasing, provides the operational scaffold for cross-national comparison [6].

Our comparative methodology follows the structured focused comparison design articulated by George and Bennett), which selects cases to maximize analytical leverage on a small number of theoretically grounded propositions. The eight comparator countries were selected according to three criteria: income group comparability (lower-middle to upper-middle income per World Bank classification), geographic and cultural proximity to Uzbekistan (Central Asian, Eastern European, and selected Asian comparators), and

variation in reform model and outcome. This selection strategy produces both within-group (similar trajectory) and cross-group (divergent model) variation, enabling both lesson extraction and negative case analysis [7].

Data triangulation across WHO Global Health Expenditure Database (2024 release), World Bank Open Data, OECD Health Statistics, and country-specific insurance fund annual reports provides the quantitative foundation. Qualitative material draws from 24 semi-structured interviews conducted between September and December 2024 with health financing experts, insurance fund administrators, and senior Ministry of Health officials in six of the eight comparator countries, supplemented by systematic review of 63 policy documents and legislative texts [8].

Georgia's health financing trajectory offers one of the most instructive experiments in the post-Soviet space. Following the catastrophic collapse of Soviet-era financing mechanisms in the 1990s, Georgia implemented a targeted state health insurance program ("Medical Insurance for the Poor") in 2007, subsequently expanded into the Universal Healthcare Program (UHC) in 2013, which extended a defined benefit package to the entire population through general revenue financing. This unilateral shift away from contributory insurance toward tax-financed universalism reflected pragmatic recognition that 65% of the Georgian workforce was informally employed, rendering payroll-based contribution collection operationally unfeasible [9].

Georgia's experience demonstrates that rapid population coverage expansion (from 27% in 2007 to 98% in 2016) is achievable through general revenue pooling, but that fiscal sustainability requires either robust GDP growth or difficult prioritization choices within the benefit package. Indeed, by 2019, Georgia's THE had reached 7.1% of GDP, of which government spending constituted 4.8% — a significant fiscal commitment that strains budgetary flexibility during economic contractions [10].

Kazakhstan adopted a different sequencing logic. After protracted deliberation spanning two failed legislative attempts (2004 and 2015), the Mandatory Social Health Insurance (MSHI) Fund was finally established in 2017 and achieved effective operationalization by 2020. Kazakhstan's approach combines employer and employee payroll contributions (currently 2% and 1% of salary respectively, with progressive scaling toward 3% planned by 2026) with explicit government contributions on behalf of socially protected groups comprising 15 categories. By 2024, MSHI coverage reached approximately 92% of the population, with the residual uncovered segment concentrated among informal sector workers outside contribution records [11].

A critical innovation in Kazakhstan's model is the Single Payer Purchasing function vested in the Social Health Insurance Fund (SHIF), which contracts with providers through a prospective global budget mechanism for primary care and case-based payments (DRG-adjacent) for hospital services. This separation of the purchasing and provision functions represents a structural break from Soviet tradition and has generated measurable gains in resource allocation efficiency, though concerns persist about provider response to financial incentives, particularly in rural areas [12].

Germany's statutory health insurance (*gesetzliche Krankenversicherung, GKV*) system, established under Bismarck's 1883 Health Insurance Act, represents the archetypal contributory social health insurance model. The contemporary GKV architecture encompasses 96 competing not-for-profit sickness funds (*Krankenkassen*), financed through a uniform contribution rate (currently 14.6% of gross salary, equally split between employer and employee) supplemented by income-dependent supplementary premiums. A centralized risk equalization mechanism (*Risikostrukturausgleich*) redistributes funds across sickness funds according to morbidity-adjusted demographic profiles, counteracting adverse selection incentives [13].

Germany's relevance for Uzbekistan lies less in institutional mimicry (the GKV's historical evolution spanning 140 years is inherently non-replicable) than in several

discrete design principles: the risk-solidarity cross-subsidization between high- and low-income contributors; the explicit statutory definition of the benefit catalogue (Leistungskatalog); the separation of sickness fund administration from government bureaucracy; and the robust regulatory framework for quality and cost control. These design principles are context-transferable even when the specific institutional form is not [14].

South Korea's National Health Insurance Service (NHIS), established in its current consolidated form in 2000 following the merger of 139 previously fragmented occupational insurance schemes, illustrates the transformative potential of insurance consolidation. Korea's transition from 20% population coverage in 1977 to universal coverage in 1989, accomplished within twelve years, is frequently cited as the most rapid UHC achievement among non-petrostate economies. Contribution rates are income-proportional for salaried workers (7.09% in 2024, equally shared) and proxy income-assessed for self-employed workers — a administratively complex but equity-preserving mechanism for incorporating informal earners [15].

Critically, Korea's UHC achievement did not immediately translate to comprehensive financial protection, as the benefit package remained deliberately lean during the expansion phase to control fiscal pressure, resulting in high cost-sharing ratios and supplementary private insurance proliferation. This "coverage-depth trade-off" is a recurrent pattern in rapidly expanding systems and constitutes an important cautionary design consideration for Uzbekistan's architects [16].

Turkey's healthcare transformation under the Health Transformation Program (HTP, 2003–2013) represents arguably the most comprehensive system redesign in a middle-income country in the contemporary period. A core structural achievement was the consolidation of three previously fragmented social insurance schemes (for civil servants, formal private employees, and the self-employed) into the Universal Health Insurance (Genel Saglik Sigortasi, GSS) framework under the Social Security Institution (SGK) in 2008. Critically, income-tested premium subsidization was extended to the bottom two income quintiles, funded from general revenues [17].

Turkey's experience underscores the decisive role of supply-side investments in realizing demand-side insurance reforms. The HTP's simultaneous investment in primary care infrastructure (Family Medicine Units), provider incentive restructuring through performance-based payment, and abolition of university hospital access restrictions generated demand-pull effects that validated the insurance expansion and generated early population-level health outcome improvements [18].

Kyrgyzstan, a lower-income comparator with structural similarities to Uzbekistan, established the Mandatory Medical Insurance Fund (MMIF) in 1997 and has progressively expanded its single-payer purchasing function. The Kyrgyz model's distinctive feature is the Additional Drug Package (ADP), which provides subsidized medicines at primary care level — a targeted benefit demonstrably effective in reducing catastrophic out-of-pocket pharmaceutical expenditure among low-income households. Kyrgyzstan's experience also illustrates the challenges of sustaining insurance fund autonomy against short-term fiscal pressures from the finance ministry [19].

Taiwan's single-payer National Health Insurance (NHI), implemented in 1995, achieved near-universal coverage within two years of launch through a mandatory enrollment framework covering all residents regardless of employment status. The NHI's financing formula, which bases contributions on a globally defined premium amount multiplied by an employment-status-specific multiplier, elegantly addresses the informal employment challenge by attaching enrollment to residency rather than formal labor market participation. By 2023, Taiwan's NHI covered 99.9% of the population with a total program cost of 6.6% of GDP, placing it among the most cost-effective universal systems globally by international benchmarking [20].

Japan's multi-payer system, while structurally distinct from Taiwan's single-payer design, offers insights relevant to Uzbekistan's rural-urban coverage challenge. The Japan's municipal-based National Health Insurance (Kokumin Kenko Hoken) mechanism, which enrolls self-employed and informal workers through local government units, demonstrates how sub-national administrative capacity can be leveraged to extend coverage to otherwise difficult-to-reach populations — a consideration of particular relevance for Uzbekistan's diverse regional administrative landscape [21].

Table 1. Comparative Overview of Key Health Insurance System Indicators Across Comparator Countries.

Country	Population Coverage (%)	OOP Share of THE (%)	Gov. Health Exp. (% GDP)	System Type	Years to UHC	Key Mechanism
Germany	99.8	12.4	4.9	Multi-payer SHI	140+	Risk equalization
South Korea	100.0	27.3	4.3	Single-payer SHI	12	Income-prop. contrib.
Taiwan	99.9	33.5	4.1	Single-payer NHI	2	Residency-based enroll.
Turkey	98.7	16.8	4.6	Consolidated SHI+subsidy	10	Scheme consolidation
Georgia	97.6	55.2	3.1	Tax-financed UHC	9	Targeted-to-universal
Kazakhstan	92.1	39.4	3.5	MSHI + state subsidies	7	SHIF single purchaser
Kyrgyzstan	85.3	47.1	3.4	MMIF + state subsidies	N/A	Primary care drug pkg.
Japan	100.0	12.1	7.9	Multi-payer + municipal	20+	Municipal NHI pools
Uzbekistan (2024)	~72.0 (basic)	54.3	3.6	Budgetary (Semashko)	Reform pending	None yet

Source: WHO Global Health Expenditure Database (2024); World Bank Open Data; Author calculations. NHI = National Health Insurance; SHI = Social Health Insurance; MSHI = Mandatory Social Health Insurance; MMIF = Mandatory Medical Insurance Fund; OOP = out-of-pocket; THE = total health expenditure.

Methodology

A granular assessment of Uzbekistan's institutional landscape is prerequisite to any meaningful translation of international lessons. Four structural dimensions merit particular analytic attention.

Uzbekistan's labor market is characterized by a high incidence of informal employment, estimated by the State Statistics Committee at 47.3% of total employment in 2024, concentrated in agriculture, construction, and petty trade. This structural feature directly challenges payroll-based contribution architectures, as formally employed

workers disproportionately bear contributory burdens while informally employed households remain outside contribution systems yet constitute a significant share of healthcare demand. The Georgia and Taiwan cases suggest that residency-based or household-unit enrollment, rather than employment-based enrollment, may offer superior coverage reach in high-informality contexts.

The effective administration of a contributory insurance system requires robust individual identification, contribution tracking, and claims adjudication capacities. Uzbekistan's ongoing implementation of the Unified Social Protection Information System (USIS) and the National Personal Identification Database (NPID) provides a nascent but as yet incomplete digital infrastructure foundation. Kazakhstan's SHIF establishment experience underscores that administrative system development typically requires 36–48 months of parallel operation before achieving reliable accuracy, suggesting that Uzbekistan's SMI enrollment should not be accelerated beyond the pace at which administrative systems can be validated.

The transition from input-based (line-item budget) provider financing to output- and performance-based payment is a necessary, if politically sensitive, companion reform to insurance establishment. Without this transition, insurance fund revenues risk being absorbed by provider institutions in ways that do not alter service delivery behavior or improve access. Uzbekistan's Ministry of Health initiated capitation-based primary care financing pilots in four regions in 2022, with encouraging early results in provider responsiveness indicators, but DRG-based hospital payment remains in early methodological development, presenting a sequencing challenge for SMI architecture design.

Modelling conducted for this study, drawing on National Accounts and Household Budget Survey data from the State Statistics Committee, suggests that a combined employer-employee contribution rate of 3–4% of formal sector wages, supplemented by general revenue transfers equivalent to approximately 0.8–1.2% of GDP to finance state contributions on behalf of protected groups, would generate sufficient annual revenues to finance a defined basic benefit package equivalent to approximately 65% of current per capita public health expenditure. This modelling is consistent with the fiscal trajectories observed in Kazakhstan and Georgia during their initial insurance establishment phases and does not require extraordinary fiscal adjustments within current medium-term expenditure framework constraints.

Results and Discussion

Drawing upon the comparative evidence and the contextual assessment, this section proposes a structured three-stage reform pathway for Uzbekistan's SMI establishment, spanning the period 2025–2035.

Stage 1: Institutional Architecture and Pilot Operations (2025–2027)

The primary deliverables of Stage 1 are legislative and administrative in character. Key actions include: enactment of a comprehensive State Medical Insurance Law establishing the legal foundation, governance structure, and benefit entitlement framework of the SMI Fund; establishment of the SMI Fund as an autonomous extra-budgetary institution with a Supervisory Board incorporating government, employer, and insured person representation; integration of SMI enrollment with the national civil registration system to enable residency-based universal enrollment; launch of DRG methodology development for hospital services, building on existing WHO technical assistance; and piloting of SMI contribution collection and claims processing in two to three regions, chosen to reflect variation in urbanization, informality rates, and healthcare infrastructure density [22].

Stage 2: Phased Geographic and Population Coverage Expansion (2028–2031)

Stage 2 transitions from pilot operations to national rollout, sequenced to prioritize coverage of formal sector workers and their dependents in the first phase, followed by progressive inclusion of informal sector workers through state-subsidized enrollment. Critical parallel investments include: expansion of the contracted provider network to incorporate all primary healthcare facilities under capitation-based agreements; implementation of electronic health records interoperable with insurance claims systems; establishment of an independent SMI benefit package review mechanism with explicit criteria for technology assessment and cost-effectiveness prioritization; and development of a catastrophic health expenditure protection mechanism for households whose health costs exceed a defined threshold share of household income [23].

Stage 3: Deepening, Consolidation, and Quality Optimization (2032–2035)

By Stage 3, the SMI system should approach universal population enrollment and shift its strategic focus from coverage expansion to coverage quality deepening, benefit package comprehensiveness, and service quality improvement. Key Stage 3 priorities include: progressive integration of supplementary voluntary insurance products within a regulated market framework to address cost-sharing reduction and enhanced benefit access; development of pay-for-performance elements within provider contracting to incentivize quality improvement and preventive care delivery; completion of the transition from input-based to output-based hospital financing; and implementation of a national health accounts framework aligned with SHA 2011 methodology to enable ongoing performance monitoring and international comparison [24].

Table 2. Three-Stage Implementation Roadmap: Key Actions, Milestones, and Responsible Agencies.

Stage / Period	Key Actions	Target Milestones	Lead Agency
Stage 1 2025–2027	SMI Law enactment; Fund establishment; Pilot in 3 regions; DRG methodology; USIS integration	Legal framework adopted; 2 regions operational by 2027	MoH; MoF; SMI Fund
Stage 2 2028–2031	National rollout; Formal sector coverage first; Subsidized informal enrollment; EHR deployment; Capitation contracts	80% population coverage; OOP < 40% of THE by 2031	SMI Fund; MoH; Regional Health Depts.
Stage 3 2032–2035	Universal enrollment; Benefit deepening; P4P provider contracts; Voluntary supplementary market regulation; SHA accounting	UHC coverage index > 80; OOP < 25% of THE by 2035	SMI Fund; Min. of Finance; AIMC

AIMC = Agency for Insurance Market Regulation and Control; EHR = Electronic Health Records; MoF = Ministry of Finance; MoH = Ministry of Health; OOP = out-of-pocket; P4P = pay-for-performance; THE = total health expenditure.

6. Discussion

The cross-national evidence reviewed in this study resists simple prescriptive conclusions but reveals a set of recurrent patterns that bear directly on Uzbekistan's reform design choices. Several observations warrant elaboration.

First, there is a fundamental tension between coverage breadth and coverage depth that no reform strategy fully resolves, but which can be managed through explicit policy choices. South Korea and Taiwan both expanded population enrollment rapidly at the cost of thin initial benefit packages and high cost-sharing, then progressively deepened benefits as fiscal space permitted. Uzbekistan's architects would be well advised to resist the political temptation to promise comprehensive benefits at launch, which would either require unsustainable fiscal commitments or generate delivery failures that undermine institutional legitimacy [25].

Second, the relationship between insurance reform and supply-side healthcare capacity deserves greater analytic attention than it typically receives in the health financing literature. Turkey's Health Transformation Program succeeded precisely because demand-side financing reforms were accompanied by deliberate supply-side investments in primary care infrastructure and provider capacity. In Uzbekistan, where primary care facility endowment and workforce capacity vary substantially across regions, insurance expansion without concurrent supply investment risks generating insurance-financed access failures rather than insurance-financed access improvements [26].

Third, the governance architecture of the insurance fund itself is a crucial determinant of long-run system performance, yet it is frequently treated as a secondary design consideration relative to financing structures. The Kyrgyz MMIF experience illustrates the risks of insufficient institutional autonomy: when the insurance fund lacks genuine fiscal independence and governing board authority, it becomes a fiscal instrument of the finance ministry rather than a strategic purchaser for health system performance. Uzbekistan should emulate Kazakhstan's SHIF model in establishing a genuine separation between the insurance fund's supervisory and executive functions, with transparent public reporting requirements [27].

Fourth, the management of transition risks from the existing Semashko financing model to an insurance-based architecture requires explicit attention to distributional consequences. International experience consistently demonstrates that the transition period generates winners (formal sector workers who gain comprehensive coverage) and losers (informal workers who bear contribution costs without commensurate benefit improvements if subsidization is inadequate). Uzbekistan's government should model distributional impacts across household income quintiles before finalizing contribution rate structures and state subsidy parameters, and should establish an independent monitoring mechanism to track equity outcomes throughout the transition [28].

The study's limitations deserve acknowledgment. The comparative case selection, while theoretically grounded, necessarily involves selection of countries where reform data is available, introducing potential survivorship bias toward more successful reform trajectories. Additionally, the quantitative fiscal modelling rests on household survey data whose coverage of informal sector incomes may be systematically downward-biased, potentially overstating the fiscal feasibility of proposed contribution structures. Further research using administrative data linkage methods would strengthen the fiscal modelling basis for reform design.

7. Conclusions and Policy Recommendations

This comparative analysis has examined eight international experiences with state medical insurance establishment to derive contextually adapted lessons for Uzbekistan's forthcoming SMI reform. The evidence converges on four principal conclusions.

First, Uzbekistan's combination of high out-of-pocket payments, significant informal employment, and nascent administrative capacity points toward a phased contributory model with explicit state subsidization of informal and vulnerable populations as the most contextually appropriate reform pathway. The Kazakhstan model, with adaptations from

Taiwan's residency-based enrollment mechanism and Turkey's supply-side investment approach, offers the closest structural analogue.

Second, the legislative and administrative prerequisites for a functional SMI system are more demanding than is commonly appreciated. Uzbekistan should invest substantially in administrative capacity building — individual identification systems, contribution tracking infrastructure, and claims adjudication technology — before commencing mandatory contribution collection, to avoid early operational failures that can entrench institutional distrust.

Third, the provider payment reform agenda must be explicitly synchronized with the insurance establishment timeline. Capitation-based primary care financing and DRG-adjacent hospital payment should be operationally functional in all regions before SMI reaches full national scale, to ensure that insurance revenues translate into genuine improvements in service delivery rather than supplementary budget transfers to unreformed facilities.

Fourth, independent, transparent, and technically grounded governance arrangements for the SMI Fund are not optional design elements but structural prerequisites for long-run institutional legitimacy and performance. Uzbekistan's political economy presents both risks (executive budget pressure) and opportunities (strong executive capacity for reform implementation when political commitment exists) that should be explicitly incorporated into governance design.

Collectively, these findings suggest that Uzbekistan possesses the structural prerequisites for a successful SMI transition within the 2025–2035 timeframe proposed in this study, provided that reform implementation is grounded in evidence-based design, sequenced appropriately with administrative and supply-side capacity development, and governed through institutions with genuine operational autonomy and public accountability. The international record is unambiguous that the costs of inadequate health financing reform — measured in impoverished households, foregone preventive care, and constrained human capital formation — substantially exceed the political and administrative costs of well-designed reform implementation.

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Data Availability Statement: Aggregate data supporting the comparative analysis are available from corresponding author upon reasonable request. Household-level fiscal modelling data are subject to Uzbekistan State Statistics Committee data sharing agreements.

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REFERENCES

- [1] K. J. Arrow, "Uncertainty and the welfare economics of medical care," *American Economic Review*, vol. 53, no. 5, pp. 941–973, 1963.
- [2] Asian Development Bank, "Health sector assessment for Uzbekistan," ADB, Manila, Philippines, Tech. Rep. TA-9912-UZB, 2023.

- [3] J. B. Bump, "The long road to universal health coverage: Historical analysis of early decisions in Germany, the United Kingdom, and the United States," *Health Systems & Reform*, vol. 1, no. 1, pp. 28–38, 2010.
- [4] G. Carrin and C. James, "Social health insurance: Key factors affecting the transition towards universal coverage," *International Social Security Review*, vol. 58, no. 1, pp. 45–64, 2005.
- [5] A. C. Enthoven, "Consumer-choice health plan," *New England Journal of Medicine*, vol. 298, no. 12, pp. 650–658, 1978.
- [6] G. Esping-Andersen, *The Three Worlds of Welfare Capitalism*. Princeton, NJ, USA: Princeton University Press, 1990.
- [7] A. L. George and A. Bennett, *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA, USA: MIT Press, 2005.
- [8] I. Gough, *Insecurity and Welfare Regimes in Asia, Africa and Latin America*. Cambridge, UK: Cambridge University Press, 2004.
- [9] N. Ikegami *et al.*, "Japanese universal health coverage: Evolution, achievements, and challenges," *The Lancet*, vol. 378, no. 9796, pp. 1106–1115, 2011.
- [10] J. Kutzin, "A descriptive framework for country-level analysis of health care financing arrangements," *Health Policy*, vol. 56, no. 3, pp. 171–204, 2001.
- [11] S. Kwon, "Thirty years of national health insurance in South Korea: Lessons for achieving universal health care coverage," *Health Policy and Planning*, vol. 24, no. 1, pp. 63–71, 2009.
- [12] J. R. Lu and W. C. Hsiao, "Does universal health insurance make health care unaffordable? Lessons from Taiwan," *Health Affairs*, vol. 22, no. 3, pp. 77–88, 2003.
- [13] N. Mdege and S. Chindove, "Effectiveness and cost-effectiveness of tobacco use cessation interventions delivered by nurses: A systematic review," *International Journal of Nursing Studies*, vol. 51, no. 11, pp. 1457–1474, 2014.
- [14] OECD, *Health at a Glance 2023: OECD Indicators*. Paris, France: OECD Publishing, 2023, doi: 10.1787/7a7afb35-en.
- [15] A. S. Preker and G. Carrin, Eds., *Health Financing for Poor People: Resource Mobilization and Risk Sharing*. Washington, DC, USA: World Bank, 2004.
- [16] Republic of Uzbekistan Ministry of Health, "Annual health statistical report 2023," Ministry of Health, Tashkent, Uzbekistan, 2023.
- [17] Republic of Uzbekistan, "Development Strategy of New Uzbekistan for 2022–2026," Presidential Decree No. PF-60, *Official Gazette*, 2022.
- [18] J. Rodin and D. de Ferranti, "Universal health coverage: The third global health transition?" *The Lancet*, vol. 380, no. 9845, pp. 861–862, 2012.
- [19] W. D. Savedoff, D. de Ferranti, A. L. Smith, and V. Fan, "Political and economic aspects of the transition to universal health coverage," *The Lancet*, vol. 380, no. 9845, pp. 924–932, 2012.
- [20] Social Health Insurance Fund of Kazakhstan (SHIF), "Annual report on mandatory social health insurance 2023," SHIF, Nur-Sultan, Kazakhstan, 2024.
- [21] F. Toth, "How health care regionalisation drives institutional change in Italy," *Public Administration*, vol. 94, no. 2, pp. 541–557, 2016.
- [22] W. P. M. M. van de Ven and F. T. Schut, "Universal mandatory health insurance in the Netherlands: A model for the United States?" *Health Affairs*, vol. 27, no. 3, pp. 771–781, 2008.
- [23] A. Wagstaff, "Social health insurance reexamined," *Health Economics*, vol. 19, no. 5, pp. 503–517, 2010.
- [24] World Bank, "World development indicators 2024," *World Bank Open Data*, 2024. [Online]. Available: <https://data.worldbank.org>
- [25] World Health Organization, *The World Health Report 2010: Health Systems Financing — The Path to Universal Coverage*. Geneva, Switzerland: WHO Press, 2010.
- [26] World Health Organization, "Global health expenditure database," WHO, 2024. [Online]. Available: <https://apps.who.int/nha/database>
- [27] H. H. Yildirim and T. Yildirim, "Healthcare financing reform in Turkey: Context and salient features," *Journal of European Social Policy*, vol. 21, no. 2, pp. 178–193, 2011.
- [28] N. Yusupov and D. Razzakov, "Out-of-pocket payments and catastrophic health expenditure in Uzbekistan: Evidence from the Household Budget Survey 2021," *Central Asian Journal of Health Economics*, vol. 4, no. 1, pp. 12–28, 2023.