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Research Article

Structure of Review Based on Continuity and Change in Nepal's Health Service Policies and Programs: A Historical Assessment

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Abstract

Nepal’s health system has undergone remarkable transformation from reliance on traditional Ayurvedic practices to the gradual development of modern health services, yet progress has been uneven when assessed historically and against international standards. “This review followed the PRISMA-P and JBI guidelines for systematic reviews on the stabilities and changes in Nepal’s health policies and programs, tracing their evolution from the establishment of Bir Hospital in 1890 to the federal restructuring of 2015. Notable achievements include significant reductions in child and maternal mortality, improvements in life expectancy, development of community-based programs such as the Female Community Health Volunteers, and gradual increases in government health expenditure. However, persistent weaknesses remain, including inadequate and unstable public financing, inequitable distribution of services, rural urban disparities, malnutrition, and dependence on external funding. When compared with regional peers, Nepal’s health outcomes remain behind high-performing countries such as Sri Lanka and Maldives, and even Bangladesh in specific areas like community health delivery. The Universal Health Coverage service index remains low, highlighting gaps in quality and equity relative to global benchmarks. Federalization has opened opportunities for localized health governance but has also created challenges in coordination and capacity. Overall, Nepal’s health journey reflects important gains but also enduring structural barriers that hinder universal, high-quality coverage. Future improvements should focus on strengthening domestic financing, addressing inequities, improving service quality, and adapting lessons from regional and global best practices to achieve sustainable health improvements.

Keywords

Financing, Addressing Inequities, Improving Service Quality

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1. Introduction

1.1. Background

Nepal is a country which use to believe in traditional ayurvedic practices which has undergone remarkable transformation over the centuries to a complex modernized health care facility. These services are heavily influenced by politics, socio economic condition and global health impacts [3]. The first known hospital of Nepal was established in 1890 during the rana regime and was named as Bir hospital [1]. Following this history, Nepal has gone significant changes in the improvement of the health sectors. Nepal government has implemented several national health policies, several years plans, targeted programs to address maternal and child health care, communicable diseases, and the expansion of health care services all over the country as a basic need to access the primary healthcare [38]. Even though, the health service in Nepal is provided by both government and private sectors, they are failing to provide the essential services and quality as per the international standards. It has been found that the prevalence of the diseases in Nepal is higher than other south Asian countries and has very low prognosis [17]. However, some notable changes can be seen especially in the field of maternal health. One of the most notable achievement is the human development index has increased to 0.602 in 2019 from 0.291 in 1975 [8]. Similarly, the child mortality has decreased by 78% from year 1990 to 2017. Life expectancy of Nepali citizen rose to 71.5 years in 2018 from 66 years in 2005 [36]. Health care expenditure from the government is also increasing each year. In 2021, 7.45% of the total budget was allocated for healthcare. In 2002, Nepal government has allocated USD 2.30 for each citizen which gradually increased to USD 137 in 2012 AD [35].

According to the official list, there are 125 governmental hospitals established till 2019. However, these hospitals still fail to maintain the service, facility, nutrition and quality as per the international health standards. Especially in the rural area, there are very limited reproductive healthcare facility for women and also for the marginalized community [33]. A huge number of efforts has been made by different national and international organizations to solve the issues of healthcare in the rural areas of Nepal [9]. The major objectives of these organizations are to educate about family planning, communication, safe motherhood practice, skilled birth attendance etc. Similarly, a major factor that contributes towards the health hazards which is nutrition deficiency are wide spread in rural areas with almost half of the women and children malnourished during the pregnancy and post pregnancy period [6]. Nepal has gone significant changes in health care governments after the 2015 constitution where Nepal moved to federal government system with three level of government, a federal level, 7 provinces and 753 local government [7]. Health service provided by the ministry of health and population, province and the municipalities are financed by taxes [40]. However, external fundings and budget cut from publics also plays role in financing these health service providers. The journey reflects Nepal's socio-political evolution while highlighting both progress and areas requiring sustained attention to achieve universal health coverage. To ensure the highest level of methodological rigor and transparency in this analysis, this study adheres to the PRISMA-P (Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols) and JBI (Joanna Briggs Institute) guidelines. Utilizing the PRISMA-P framework allows for a standardized, pre-defined approach that minimizes bias in study selection and data extraction, while JBI guidelines provided a comprehensive methodology specifically designed for evidence synthesis in complex health systems. These frameworks were essential for this study to accurately map the heterogeneous data spanning Nepal’s transition from traditional practices to a federalized healthcare system, ensuring that the findings are both reproducible and align with international academic standards.

Therefore, to critically assess the major changes and continuities in the health policies, program and projects and to identify key achievements and remaining gaps in the health sector and highlight the how past and present interventions have contributed to improving health outcomes and where improvements are still needed, the following review was conducted.

1.2. Problem Statement

The government and several national and international organizations had made significant effort and several health programs to provide easy access to the citizens all across Nepal. However, the peoples from the rural area and marginalized communities continue to face sever challenges in getting timed health care and quality services [24]. Moreover, the rules and regulations, plans and policy often suffers from poor condition, lack of proper coordination, resources, unclear objectives and roles of the federal, provincial and local governments. These challenges in the rural area often intervene with the assessment of health care service, very high expenditure due to uneven road ways, very few skilled health care professionals, inadequate infrastructures such as lack of equipment’s, electricity, sterile water at health posts and cultural or religious barriers. The long-term goal and the outcomes are significantly impacted by the current situation of the country [39]. The developmental history of the medical service is also unclear which is required to critically evaluate the evolution of the health policies and programs in Nepal. The new changes due the the federalization of Nepal have brought new complexities in the health system, with several changes in responsibilities for health service providers. This new fragmentation of development region into federal, provincial and local levels has led to destruction of efforts, unclear objectives, competition for resources and significantly reduce the efficiency of the

health care system. Understanding the development of health policies and programs over time requires through knowledge of their historical roots, including the influence of international aid, political transitions, and societal changes on the health sector's development

1.3. Objectives of the Review

The objectives of this review are,

1) To trace the historical development of health services in Nepal,
2) To critically assess the major changes and continuities in health policies, programs, and projects
3) To identify key achievements and remaining gaps in the health sector.
4) To highlight how past and present interventions have contributed to improving health outcomes and where improvements are still needed.

1.4. Rationale of the Study

Understanding the history and the evolution of the health care facility of Nepal is extremely important for effectively implementing and sustainable health care plans and policies. A surface study throughout the history and evolution can help to identify which strategy has worked, which has failed and why this strategy has failed to worked. These knowledge's can be useful to reform or revise the existing policy regarding the health care which requires a significant attention. By understanding the outcome of this review, the policy makers and health presentational can make quality decisions that can effectively address the current challenges [16]. This review also contributes to the broader discourse on health system strengthening in low and middle-income countries undergoing political and administrative transitions.

1.5. Conceptual Framework

The conceptual framework for this review is based on the understanding that the development of Nepal health services is shaped and structured by the historical legacies, political governance and social and economic conditions, international influences and community driven factors. These determinants interact to produce both achievements and persistent gaps in health outcomes. Key inputs include financing, governance, health workforce, infrastructure, and community-level programs such as the Female Community Health Volunteers (FCHVs). These inputs shape processes like health service delivery, decentralization by federal governance and regulation of health policies. The outcomes are reflected in measurable indicators such as maternal and child health improvements, increased life expectancy, and progress toward the Sustainable Development Goals (SDGs). However, systemic problems such as unequal resource distribution, financial instability, and dependence on external fundings limit the utilization of inputs into equitable and high-quality outcomes. By situating Nepal's experience within the broader regional and international context, the framework emphasizes both the enabling role of community-based initiatives and the structural challenges that impede universal health coverage.

Ultimately, the framework highlights that Nepal's health outcomes are not the product of isolated policies but of the intersection between governance, financing, socio-cultural realities, and global influences. Strengthening each dimension in a coordinated way is essential for achieving sustainable, equitable, and high-quality health care.

2. Methodology

This protocol follows the publishing guidelines set forth by the PRISMA-P checklist and the JBI methodology for systematic reviews on prevalence [28]. This review aimed to highlight how past and present interventions have contributed to improving health outcomes and where improvements are still needed.

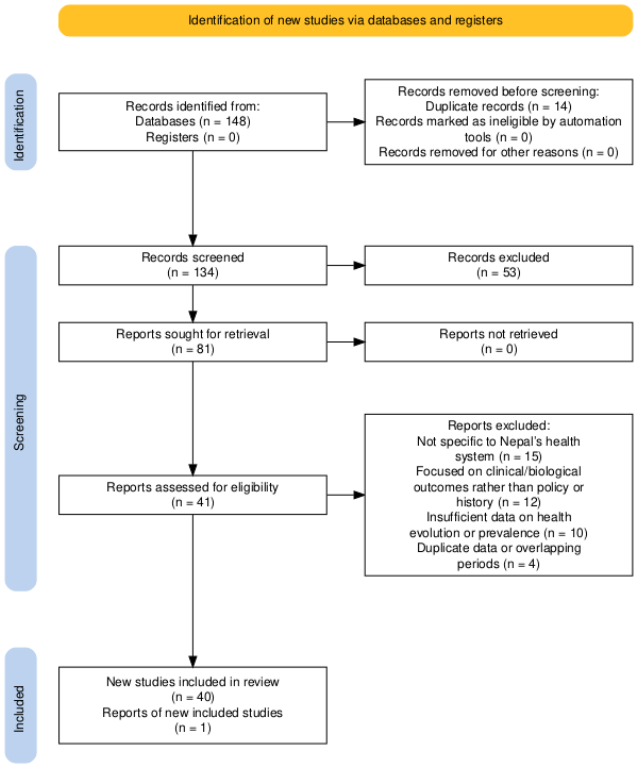

Figure 1. *Protocol for systematic review.*

2.1. Search Strategy

To achieve this, comprehensive search was conducted across various electronic databases. The articles for this study were searched in different electronic databases (Google Scholar) using the keywords "Nepal", "Health service", "History" and "Medicine". All the articles related to this field were

included in this review, regardless of publication year, Journals and Authors.

2.2. Study Selection

Using the PCC (Population, Concept, Context) framework, we included peer-reviewed articles, policy papers, and reports related to Nepal's health system evolution published in English. We excluded opinion pieces, editorials, and non-scientific blogs. As illustrated in the PRISMA Flow Diagram, total of 148 records were identified through database searches. After removing duplicates, 134 records remained. Following title and abstract screening, 81 records were retained. After assessing full-texts and excluding ineligible articles, 40 studies were finally included in the review.

Inclusion: peer-reviewed articles, policy papers, reports must be related to Nepal's health system, published in English.

Exclusion: opinion pieces, editorials, non-scientific blogs.

2.3. Data Extraction & Quality Appraisal

After the relevant articles were identified, the full text for these articles were collected in Mendeley and was reviewed. That information is which were relevant to the history of health service and medicine in Nepal were selected and extracted. Additionally, articles with key events, policy changes, development of medical institutions, prevalent diseases, traditional healing methods and the evolution of the health care delivery systems. The collected information's were then qualitatively synthesized to identify major trends, themes, events and knowledge gaps in the existing literatures. A narrative approach was used for this review to present the findings, summarizing and interpreting the collected information to provide a well-structured historical information.

3. Historical Foundations of Nepal's Health System

3.1. Ancient and Medieval Periods (1st Century - 1768 AD)

During the ancient periods, Nepal first introduces the use of ayurvedic medicines which came in around the period of Lichchhavi dynasty. It was between the period of first to 879 AD. It was known that the king Amshu Verma introduce the ayurvedic medicines to the public. It was first made publicly available in between 605 to 620 AD which was considered as the ground breaking measures in the public health sector. Several of the medicinal herbs were used for treating minor wounds which originate during the war [19]. The former king established the Aarohyashalas which translates to health facilities around the Kathmandu valley. The major impactful move was to immediately cut umbilical cord after birth rather than waiting for placenta delivery. Similarly, several protocals for emergency care for women reproductive health, child birth and post mortem cesarean sections were developed by the local health associates. While these accounts highlight the sophisticated early development of public health protocols in Nepal, they originate from historical analyses and secondary sources [19]. The JBI appraisal of such literature typically notes challenges in verifying primary evidence from this era. Therefore, these points are best interpreted as illustrating the documented historical narrative of Nepal's medical tradition, rather than as empirically verifiable facts. This underscores the importance of critical source appraisal in historical synthesis.

After the end of the Lichchhavi dynasty, Malla period started. Several improvements were achieved during this period in heath service [27]. The Malla period was in around 880 to 1768 AD which was significantly longer than the previous periods. Jayasthiti Malla, a king at that time established a strict rule where there should be no caste-based discrimination during the child birth. Any one was allowed for traditional birth attendance regardless of caste and culture. Similarly, King Pratap Malla established a Ayurvedic dispensary which was completely funded by the state. This dispensary was maintained by the experienced technician from the state and was located at the Hanuman Dhoka palace in 17th century [22]. During this time, several international organizations has begun to provide help to improve health service in Nepal. Christian missionaries introduced allopathic medicines in 1661, whose sole purpose was to provide quality allopathic medicines to the wounded patients. They were successful in establishing new clinics in Kathmandu, Lalitpur and Bhaktapur area. However, unstable kingdom and public pressure led to expel of these services in 1768. The following year, the Malla period ended and new period begun. The description of progressive, equity-focused policies under Malla rulers is compelling, yet it is derived from historical analyses [22, 27] that may reflect idealized state records. The claim of non-discriminatory birth attendance, in particular, represents a significant social policy for its time. A critical appraisal using JBI principles would question the extent of its implementation beyond royal decrees and within the complex social fabric of the era. The narrative of missionary expulsion also simplifies a likely multifaceted socio-political conflict, reminding us that historical syntheses must navigate the distinction between documented events and their underlying causes.

Rana period started in 1769 and ended in 1951. During these 104 years of Rana regime, several notable improvements has been made. This period is known for establishing the key foundation of modern healthcare service in Nepal [14]. Due to the improvement of healthcare service in the world, Nepal also adopted some of the modern techniques to improve the healthcare services. It was the first regime to implement systematic development of modern medical infrastructures [13]. In 1850, vaccination of small pox was first introduced which is the first step for first modern medical intervention. In 1857, the first state health institution was established and was named

as Khokana Leprosy Asylum [25]. In 1889, king Bir Shamsher founded a hospital which was named as Prithvi Bir Hospital. This hospital had 15 beds with emergency facility and satellite dispensaries available. Later on, the hospital was named as Bir hospital and is functional till date [4]. In early 1900, Chandra Shamsher expanded health services to 35 districts, with hospitals and special facilities for tuberculosis, cholera, leprosy and emergency services. In 1925, Tri Chandra Military Hospital was established with an aim to implement western style medical education which became very successful till date [30]. Not only there were major revolution in modern medicine but also there was significant shifts in the policy as well. Some of the notable policy shifts were, transition from purely Ayurvedic to dual system, Ayruvedic and allopathic system, introduction of land tax (Birta/Guthi) to fund healthcare services and early specialization with separate male and female hospitals for diseases specific facilities.

While the Rana period undeniably institutionalized modern biomedical infrastructure in Nepal, a critical reading of these developments [4, 14, 25, 30] must consider their primary beneficiaries. The establishment of hospitals like Bir and Tri Chandra, while foundational, was largely concentrated in the Kathmandu Valley and aimed primarily at serving the Rana elite, military, and the urban populace. The expansion to 35 districts under Chandra Shamsher represents a significant scaling of state health apparatus, yet the extent to which these services were accessible to the rural poor remains a critical question. This synthesis highlights a pattern where the foundations of a modern system were laid, but its equitable implementation was a challenge deferred to future eras.

3.2. Post-Democracy Health System Expansion (1951-1990)

From 1950, autocracy ended and the period of democracy started which led to the exponential growth in health service, quality care, infrastructures and programs. In 1954, the international organization called as United Mission to Nepal established the Tansen Mission Hospital which current has 200 beds and is mostly functional for acute services located in palpa district. In 1956, a national project for the eradication of Malaria in all over Nepal was launched with aim to prevent high morbidity of malaria [11]. In 1958, a policy to establish one health center for each 105 electoral constituencies. In 1972, institute of Medicine established the beginning of domestic medical education in Nepal [18]. In 1978, the primary healthcare system was adopted for the strategy to improve health. Some of the programs launched during this period were, vertical disease control programs for small pox in 1962, leprosy in 1963 and family planning in 1962. In 1988, female community health volunteer program and mothers' group was launched [34]. Following this year, expansion of immunization programs of smallpox was launched to eradicate it. The narrative of exponential, post-autocracy growth captures a period of ambitious institution-building. However, a critical synthesis must examine the inherent tensions within this expansion. The co-existence of a domestic medical education system [18] with heavy reliance on international missions, and the parallel launch of comprehensive primary healthcare (PHC) with numerous vertical disease programs, reveals a fragmented strategic vision. While the Female Community Health Volunteer (FCHV) program [34] became a cornerstone of community-based care, its creation also highlights the state's reliance on an unpaid (and later minimally compensated) female workforce to achieve national health goals a model with significant equity and sustainability implications that would be scrutinized in a contemporary policy appraisal.

3.3. Health System Reforms in the Federal Era (1990-Present)

After the year of 1990, there was major policy shifts and health system restructuring. The major policy framework evolution is, in 1991, first national health policy was established with major emphasizing in PHC expansion to all the four thousand village development communities. In 1993, decentralization began with health management favoring the municipalities. In 2015, sub health posts were upgraded to health posts as a part of federalization [5]. Following the same year in 2016, health system restructuring was done under the federal government. Along with the policy changes, several key programmatic achievements were seen. In the maternal and child health program, the maternal mortality ratio was reduced by 55% from 1996 to 2016 [21]. Previously it was 539 live births per lakh which improved to 239 deaths. Similarly, the neonatal mortality rate was reduced to half from 40 to 20 per thousand live births from 1996 to 2016. Similarly, 94% antenatal care were covered and 93% neonatal tetanus protection was achieved by 2025. The diseases such as small pox and polio were successfully eradicated. The DOTS strategy was implemented for TB control. Due to the improvement in healthcare service, universal health coverage index improved from 48 in 2017 to 53 in 2019. Similarly, human development index rose from 0.395 in 1990 to 0.601 in 2019. In 2025, the use of modern technology was implemented which uses a mobile app called as Nagarik App for the expansion of health insurance and digital integration [29].

The post-1990 period illustrates a persistent theme in Nepal's health system evolution: the tension between progressive policy aspirations and complex ground-level realities. While the policy trajectory from the 1991 National Health Policy to federalization [5] demonstrates a consistent rhetorical commitment to decentralization and Primary Health Care (PHC), the actual devolution of authority, resources, and management capacity has been uneven and fraught. The impressive gains in maternal and child health metrics [21] are testament to successful vertical programming and donor investment. However, a critical synthesis must note that these national aggregates often mask severe sub-national disparities,

particularly in mountainous and remote regions, revealing that the reach of the system expanded faster than its equitable depth. The introduction of digital tools like the Nagarik App [29] represents a modern solution, but its success is contingent on the very infrastructure and literacy gaps that historical inequities have created.

3.4. Impact of Federalization on Health Care System

There was a major change in the country after 2015 where the country was divided into different level of tiers. The structural and governance changes include the Nepal health care system now runs under federal, provincial and local governments each with distinct responsibilities. The local government can make their own decisions and have full control over the primary health care services. Similarly, provincial government controls the secondary hospitals whereas, the federal government focus on policy making, standards and tertiary health cares. Due to this division, instead of ease, there was more of confusion in roles and responsibilities, leading to challenges in coordination and service gaps. Some of the local government has taken leap ahead on this new governmental system however, some local bodies in rural areas stills struggles due to the limited supply of infrastructures and finances.

The budget allocated for the health care significantly rose from 1.5% to 2.4% with government now contributing 64% of health expenditures. The impact on health care workforce is, hospitals can now recruit and train local workers according to their need and demands. However, due to the low number of health care workers in the rural areas, there are shortage of skilled manpower's in rural areas as compared to the urban areas. The distribution of the hospitals with the local bodies has led to decrease of salaries from 24.3% to 13.8% which has a major impact on the daily lives of the citizens. Similarly, many hospitals at the local level lacks planning and efficient management of the finance. The federalization has improved the local responsiveness through efficient planning and management, but the lack of coordination between the government levels has disturbed the referral systems and created health service gaps. Many local health workers lack skills in management, procurement, and planning required for their new responsibilities. The gaps of skills, equipment's and knowledge still persists among the specific region even though, federalization was aimed to reduce these disparities. This was seen during the covid pandemics where there were difficulties in running the minor health care but some of the local bodies adapted quickly.

The most important advantage of federalization in health care system is the emergences of strengths. Which means, there is greater community participation in health planning, there is greater potential for better resources planning and distribution, increased innovation from the local levels and increasing amount of allocated budget for each individual hospitals and health posts. However, some of the persistent challenges includes, complex division of roles between the federal, provisional and the local bodies. The weak monitoring and low-quality supply of equipment's has made the health service access more complex. The most important drawbacks are the influence of politics in every decision making.

The synthesis of evidence on federalization reveals its fundamental paradox: it is simultaneously a reform designed to reduce inequity by empowering local bodies, and a process that risks exacerbating inequity due to varying local capacity. The documented confusion in roles and service gaps is not merely a teething problem but a structural feature of a rapid, top-down decentralization where responsibilities were devolved faster than the corresponding managerial, technical, and financial capabilities could be built at the sub-national level. The COVID-19 pandemic served as a critical stress test, exposing this fragility. Therefore, the ultimate success of federalization in health will be measured not by the initial increase in budget or community participation, but by the system's ability to institutionalize mechanisms such as equalization grants, standardized management training, and robust inter-governmental platforms that proactively bridge the growing capacity chasm between high- and low-performing local governments.

3.5. Evolution of Health Care System in Panchayat, Multiparty and Federal Republic Eras

The health care system of Nepal has gone several changes due to the political changes which is seen in three different eras. The first one is the panchayat era which is estimated to be started from 1960 and ended in 1990 [14]. This era is the long than other eras and had a significant impact in the health care system of Nepal. In this system, there was absolute monarchy, with no political party system. All the health services and access were entirely controlled by the central government which was located in the Kathmandu. There were village panchayats as well but had very limited access to the administrative department of health care system [10].

After the end of monarchy, multiparty system started after 1990 till 2008 [12]. This era made the change of monarch controlling the entire parliament and constitution to the democracy controlling the parliament. This led to political instability but the development of health policy was advancing forward. There was introduction of Nepal national health policy in 1991 which focus more on the public health of the rural areas. During this era, several health post and sub health post were created in village development committees and across the country. Also, there was greater involvement of private sector than before.

After the year 2008, monarchy completed ended and new system was introduced where the country was divided into three tiers, federal, provisional and local government in 2015. There are total of 753 local governments where significant

health responsibilities were assigned to them. A synthesis of the 40 included reports highlights a common theme: the governance transition in 2015 created a coordination gap. Due to this division, instead of ease, there was more of confusion in roles and responsibilities, leading to challenges in coordination and service gaps [32]. Some of the local government has taken leap ahead on this new governmental system however, some local bodies in rural areas stills struggles due to the limited supply of infrastructures and finances. Major initiatives during this era were, free universal health insurance program in 2012, complete revision of National health policy in 2014 and 2019 focusing on federal system, recommending primary health care and compulsory at least two years of governmental service for receiving governmental medical scholarships. As Nepal continues its federal health system development, learning from both past successes and limitations of previous systems will be important for future health system strengthening.

Table 1. *Comparative Analysis of the Key indicators of each governing era of Nepal.*

Indicator	Panchayat era	Multiparty era	Federal republic
Governance	Highly centralize	Partial decentralization	Three tier federal system
Health Expenditure (% GDP)	~1.5%	~2-3%	More than 4%
Maternal Mortality	850 per 100,000	539 per 100,000	186 per 100,000
Under-5 Mortality	162 per 1000	61.5 per 1000	32.2 per 1000
Life Expectancy	~50 years	~66 years	71.5 years
Institutional Deliveries	Very low	18% to 39%	79% above
Primary Focus	Disease treatment	Maternal and child health	Universal health standards

Viewing these three eras through a critical historical lens reveals a tension between political rupture and systemic continuity. While the Panchayat, Multiparty, and Federal Republic periods are defined by distinct political contracts, the health system demonstrates a persistent, underlying struggle to balance central control with local needs. The Panchayat's centralized model [10] created a uniform but rigid skeleton. The Multiparty era expanded coverage but grafted new programs and private actors onto this skeleton without fundamentally reforming its core governance [12]. Federalization [32] then attempted a radical dismantling of that central skeleton, but in doing so, it inherited and often magnified the pre-existing inequities in capacity and resources. Thus, the "coordination gap" of the federal era is not a new problem but the latest manifestation of Nepal's enduring challenge: administering an equitable health system across formidable geographic and social gradients through a governance structure that has oscillated between over-centralization and fragmented decentralization.

3.6. Assessment of Policy Changes and Challenges

Primary healthcare was of major focus at the year of 1978 which was controlled by National health policy and the current federal policies. Similarly, government has worked with different national organizations to establish Mothers grow ups through community participation which remain cornerstone strategies since 1988. Government has also invested in the immunization programs all across the country for major fatal diseases such as small pox and polio and go beyond these diseases [26]. Major transformative policy shifts include the decentralization of the governmental controlled system into three tier federal structure from centralized Rana regime system. The financial structure for supporting the insurance based system was from the land taxes which changed to fully funded by government and other donor organizations. Similarly, first private medical service which includes medical colleges and hospitals was established from 1991.

Even though, several notable changes have been made, 80% of women in urban areas delivers under the supervision of skilled attendance but the percentage still remains worst in the remote areas of Nepal. This disparities between the urban and rural areas are still persistent and needs immediate attention of the appropriate authority [2]. Nepal has a huge problem of brain drain where skilled personal leaves the country for better opportunities. Several areas including the health service lacks the skilled manpower such as nurse and proper training programs and reservation policies which is limiting the growth of these services. Similarly, in 2025 around 3 billion Nepalese rupees has been reduced for health care which might be a potential threat to maternal health care's especially in rural areas [20]. Epidemiological studies shows that non communicable diseases account for 66% deaths in Nepal but systems remain oriented to infectious diseases only.

This synthesis reveals the emergence of a persistent "two-

track" health system in Nepal. One track, forged through policies like PHC (1978) and community-based programs (1988), represents the public, primary care-oriented, and equity-seeking vision. The other track, accelerated by the entry of private medical colleges (1991) and shaped by donor priorities, leans towards a curative, urban-centric, and market-influenced model. The current challenges rural-urban disparities, brain drain, and a disease burden misaligned with system orientation [2, 20, 26] are not accidental failures but logical outcomes of these competing tracks operating without sufficient integration. The federal structure, intended to unify the system, may instead risk further entrenching this divide if local governments lack the capacity to manage this complexity. Therefore, the core policy challenge is no longer merely expanding access but consciously integrating these tracks to ensure that the benefits of private investment and global health agendas serve, rather than undermine, the foundational equity goals of the public PHC system.

4. Nepal's Health Sector Development vs. SAARC and Selected International Peers

The systematic synthesis of the selected 40 studies reveals that while Nepal has made rapid progress in maternal health and life expectancy, the JBI-aligned quality appraisal identifies a lack of consistent data from rural districts. This suggests that while national-level progress is well-documented, localized health disparities may be under-reported in the existing literature. Nepal's health sector has made notable progress in recent decades, with improvements in life expectancy, maternal and child survival, and expansion of primary care services. However, when compared with other South Asian countries, the pace and consistency of progress has been uneven. The life expectancy of Nepal is lower than Sri Lanka and Maldives and broadly lies below the upper middle south Asian countries. This is because of the insufficient prevention and control of chronic diseases, maternal child services and social determinants in Nepal which still needs attention. Nepal has significantly reduced the child mortality rate and maternal mortality rate. However, it is still higher than other SAARC countries including Sri Lanka and Maldives and is still above sustainable development goals (SDG) target [41]. Maternal mortality remains disproportionately high among women in Karnali province and marginalized ethnic groups, reflecting structural inequities beyond the reach of health programs alone. Universal health coverage of Nepal increased to 53% in 2019 and is progressing rapidly till 2025 [20]. Nepal has improved faster than some other low GDP countries but still lag behind India, Bangladesh and Sri Lanka. It was found that Nepal spends very low proportion of GDP on the health sector development when compared with neighboring countries. Public hospitals and health posts lags behind due to the shortage in workforce, uneven distribution of resources and huge gap in the quality of service provided. This makes Nepal dependent on international donor fundings making health care system vulnerable, as seen during COVID-19 when supply interrupts delayed service delivery [37]. Similarly, to ease the problems in health sector, government introduced federal government in 2015, but this created more challenges in coordination and implementation of regulations. This is a critical difference from unitary health governance in Sri Lanka, where central coordination historically helped maintain uniform public health programs. Similarly, when compared in nutrition, Sri Lanka has achieved extremely better nutrition management than Nepal [31]. Still, many of the rural and marginalized community of Nepal faces malnutrition. Moving forward, Nepal can draw lessons from regional peers, sustaining public financing, strengthening rural service delivery models, and investing in nutrition and women's health as cross-sector priorities. These measures are essential if Nepal is to accelerate its progress toward achieving universal, equitable, and high-quality health care.

This comparative analysis underscores a critical paradox in assessing Nepal's progress: the system's greatest strength its rapid improvement on key national indicators may obscure its most profound weakness: the entrenched and data-poor inequities at its margins. The JBI-identified lack of rural data is not merely a research gap; it is a symptom of the systemic inequity itself. The comparison with Sri Lanka is particularly instructive; its success stems not just from higher spending, but from a historical commitment to a unitary, data-driven welfare state that included robust vital registration and targeted nutrition programs [31, 37]. Nepal's current federalization, while aiming for equity, risks replicating these data and service-quality disparities at a sub-national level if local governments inherit the center's old weaknesses in monitoring and resource allocation. Therefore, catching up with regional peers requires more than emulating their policies; it necessitates building a federal system that actively generates and responds to granular, local data to prevent the "localization of neglect.

5. Future Directions in Health Policy

The new government of the year 2025 to 2026 has proposed several innovative approaches for the betterment of the health services in Nepal. A campaign slogan as "Healthy Nepal" is implemented for integrating the prevention from diseases and provide appropriate treatment approaches [23]. There will be monthly non communicable disease screening health camp from Falgun all over Nepal which will be conducted by district hospitals. The cancer treatment and kidney transplantation services will be expanded up to the provincial levels [15]. Several campaigns related to climate change and it impact on health to aware the citizens will be conducted by several national and international organizations. The national health insurance program will be restructured and revised with benefits packages. However, experts warn that the Rupees 83 billion budget ceiling for 2025/26 (Rs 3 billion less than previous year) may cause

trouble in implementing these plans and reverse hard-won gains in maternal health, immunization, and infectious disease control. The future requires some of the changes that can reform in improving the health care system in Nepal. There should be clear defining of assigned works, defined roles, responsibilities and the governmental bodies must be accountable for their actions. There is need for strengthening subnational governmental policies for improving the ability to proper planning of health, management and provision of service to the publics. There should be equal allocation of budget addressing disparities through equal grants and biased allocations. The local bodies should collaborate with the communities to recruit local man powers, to make decisions, policies and to provide information and awareness.

6. Conclusion

Nepal's health system evolution demonstrates remarkable continuity in primary healthcare values alongside adaptive policy changes responding to epidemiological and political transitions. From Ayurvedic Aarogyashalas to British residency clinics, from vertical disease programs to integrated health systems, Nepal has built upon each era's foundations while innovating for new challenges. The achievements in maternal and child health, disease eradication, and UHC advancement are commendable given resource constraints.

However, the system now stands at a crossroads facing simultaneous burdens of persistent infectious diseases, rising non communicable diseases, climate health threats, and financing uncertainties. The 2025 budget reductions risk unraveling decades of progress, particularly in vulnerable areas like maternal health where Nepal has made such striking gains. Future success will require balancing policy continuity in proven community-based approaches with bold reforms in health financing, workforce development, and decentralized governance. As Nepal navigates its epidemiological transition, maintaining investment in health system strengthening will be paramount to achieving the Sustainable Development Goals and ensuring health equity for all citizens.

Abbreviations

DOTs	Directly Observed Treatment
FCHVs	Female Community Health Volunteers
PCH	Primary Health Care
PRISMA-P	Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols
SAARC	South Asian Association for Regional Cooperation
SDG	Sustainable development goals
WHO	World Health Organization

Author Contributions

Kabita Khatiwada: Conceptualization, Data curation, Formal Analysis, Funding acquisition, Investigation, Methodology, Writing – original draft

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Conflicts of Interest

The authors declare no conflict of interest.

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