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Research Article

Understanding key factors for strengthening Nepal's healthcare needs: health systems perspectives

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Background

Nepal's health policy environment and health-care delivery system has changed over the last 25 years, during which it witnessed a significant progress in improving citizens' access to healthcare services. However, a combination of factors intrinsic to the nation continue to influence health service delivery producing variable health outcomes. Given the nation's target towards achieving universal health coverage and sustainable development targets, there is a need to review and understand the functioning of Nepal's health system, its strengths, challenges, and opportunities. The review aims to explore the key health system factors influencing health services and healthcare needs, and forge actionable recommendations for the future.

Methods

The review followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for identifying the relevant literature between 2001 and 2023. A total of 300 articles were obtained from the initial search, out of which 42 full text articles were selected for an in-depth review. The literature was analysed to identify the broad themes relevant to Nepal's health system, and the findings were synthesized narratively under each theme.

Results

The review highlights various factors influencing health services and healthcare needs by describing the historical development of Nepal's healthcare delivery system, its current scenario, health expenditure, health system challenges and opportunities ahead. The evolution of Nepal's health system has been both significant and responsive.

Conclusions

The change in the governance structure and adoption of primary healthcare approach present the nation with ample opportunities to further the scope of the nation's existing health sector initiatives and outcomes.

Nepal has made significant progress over the last few years in terms of health indicators.[1] This impressive achievement in health indicators is the result of strengthening the primary (mostly peripheral) health care (PHC) systems, particularly through investments to establish health care infrastructure and health systems strengthening.[2] As a signatory to the Alma Ata Declaration in 1978, the government of Nepal recognised the importance of primary healthcare approaches in the development of coordinated quality healthcare services for people living in urban and rural areas.[3]

Transforming health systems to meet the Millennium (MDGs) and Sustainable Development Goal (SDGs) reflect how globalisation has encouraged health systems to adopt these targets. Infant mortality declined by two-thirds from 78 in 1990 to 28 deaths per 1000 live births in 2022, while maternal mortality declined by half from 543 to 151 deaths per 100,000 live births from 1996 to 2021.[4-6]

Access to health care has substantially improved over time, yet disparity based on socioeconomic status and location persist. For instance, the institutional delivery rate has improved from 18 % in 2006 to 39 % in 2011 to 79% in 2022.[4] The institutional delivery for the lowest wealth quintile was 65.8 % while that of the highest wealth quintile was 97.6 %.[4] Though births aided by skilled birth attendants increased from 19 % in 2006 to 80 % in 2022, only

67 % of women in the lowest wealth quintile accessed SBA compared to 97.4 % of women in the highest wealth quintile.[7]

Health systems in low- and middle-income countries (LMICs) can suffer from additional burden of disease due to inadequate preparedness, and weak primary health care system that can ultimately increase morbidity and mortality.[8,9] Whereas, primary healthcare would be an essential component for achieving the SDG targets.[10] Despite the improved indicators, Nepal's health systems is yet to attain SDG and national targets due to various reasons.[11,12] Considering this, there is a need to investigate and understand the factors influencing service delivery and overall health outcomes.

Although systematic reviews appear to benefit in accumulating data regarding barriers and facilitators connected to health systems functioning, the complexity of the health systems, services, and operationalities present unique challenges in comparing and combining these numerous factors. This paper aims to present health systems perspectives by reviewing the health systems functioning of Nepal, explore the factors vital for the improvement of country's healthcare needs and forge actionable recommendations for future.

METHODS

The narrative review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for identifying the relevant literature.

SEARCH STRATEGY AND STUDY SELECTION

A total of 300 relevant abstracts including country reports, national surveys were obtained from the initial search, from which 42 full text articles including country reports were selected for an in-depth review after screening the search result in three stages: a) scanning their titles; b) abstract screening; and c) full-text screening. The studies included in the review pertained to: Health systems in Nepal and expenditure on healthcare in Nepal, Disease Burden, global burden of diseases in Nepal and SDG indicators followed by National Level reports of Nepal and survey reports.

EXCLUSION CRITERIA

Articles which were unrelated to topic concerned, studies or literature in languages other than English, and did not satisfy the review purpose were excluded.

INCLUSION CRITERIA

42 peer reviewed articles including country reports published from 2001 and 2023 were included for our final analysis.

The search terms included 'health systems AND 'Nepal' AND 'Health policy' AND 'SDGs' AND 'healthcare' AND 'expenditure' AND 'national survey' AND 'global burden of diseases' AND 'health indicators' AND 'National programs' AND 'financial schemes AND 'Primary health care' AND 'National Health strategy' AND 'Nepal health reports. This search strategy was used to identify published papers in PubMed, ResearchGate and Google Scholar and Cochrane.

ORGANIZATION OF MAIN FINDINGS

This narrative synthesis follows an iterative process for exploration of relevant literature and synthesis of major findings using elements and components of Nepal health systems and its functioning. Final five themes were selected and are presented in the results section - Theme-A: Historical development in health care delivery system; Theme-B: Current scenario of health systems; Theme-C: Health expenditure in Nepal; Theme-D: Health systems challenges; Theme-E: Opportunities and way forward.

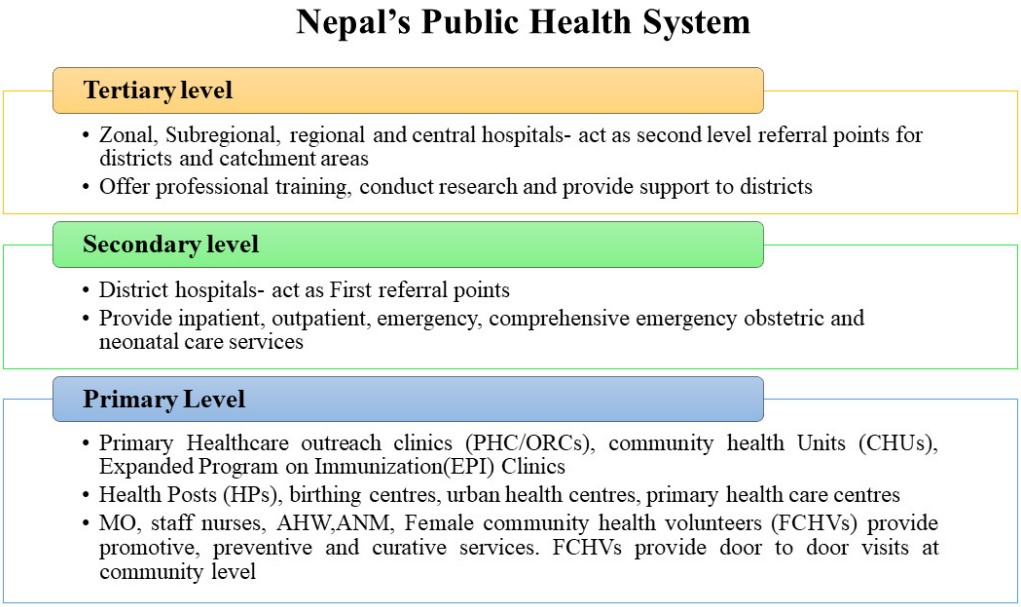
A. HISTORICAL DEVELOPMENT IN HEALTHCARE DELIVERY SYSTEM IN NEPAL

A revolutionary change in the health structure of Nepal was marked by the establishment of Bir Hospital in 1889 which brought about the development of Nepal's modern medical system. Nepal's first general health plan was introduced in 1956 as a part of First five-year plan followed by the establishment of Malaria Eradication Organization in 1955.[13]

Following which, in 1958 and 1968 Leprosy and Tuberculosis, and the Smallpox Eradication programs were introduced. The Family Planning Program introduced in 1966 was transformed into the Family Planning and Maternal Child Health Board in 1968.[14]

Moving to broader framework, Nepal introduced first 15-year long term health plan in 1975 followed by second long term health plan in 1997. Additionally, Nepal also became a signatory to Alma Ata declaration in 1978 expanding the approach to improving health for all people from the focus on doctors, hospitals and biomedical advances to include human rights, concern for equity and community participation.[15] Enforcing and strengthening the role of government in Health systems strengthening, Nepal introduced its first Nepal Health Policy in 1991 to address the aspirations of people, under which sub health posts in village development committees, health posts in various areas and one primary health centre in each electoral constituency were established.[13] The policy stressed upon structural development and expansion of health services to village areas and involvement of private sector in health. The health policy was revised in 2014 when the focus was expanded to ensure provision of free basic health services to the citizens.

In 2018, as part of the WHO member state, Nepal became one of the countries to sign the Astana declaration and pledged to strengthen its primary health care system as an essential step towards achieving universal health coverage.[16] This was followed by restructuring of National Health Policy in 2019 with the goal of developing and expanding a health system for all citizens in the federal structure based on social justice and good governance, as well as ensuring access to and utilisation of quality health services.[13]



Box 1. Level of care in Nepal

B. CURRENT SCENARIO OF HEALTH SYSTEMS IN NEPAL

Nepal's health policy environment and health-care delivery system have changed over the last 25 years. There has been a radical shift in the functioning since 2008 when the unitary government moved to a federal system. Consequently, the nation's health system's management structure has shifted from centralised to decentralised, resulting in more management structures at the district and village development committee level (VDC) levels, followed by adoption of the Constitution in 2015, by which basic healthcare was established as a fundamental right of its citizen.

The new federal system has three tiers of health wherein the Ministry of Health and Population (MoHP) is the umbrella body. MoHP along with the Department of Drug Administration, Department of Health and Family Welfare and Department of Ayurveda forms the federal level or the decision-making body for health policies and plan.[17]

Several regulatory bodies such as the medical, nursing, pharmacy, health professional, Ayurvedic Medical and National Health Research Councils have been active in ensuring quality health services, evidence-based health research and human resources for health. (*See box 1*)

This decentralised organisation, as well as the gradual expansion of health services, beginning with the provision of basic family planning services and progressing to the delivery of child health medicines and life-saving maternal health services resulted in the availability of a comprehensive package of maternal and child health (MCH) services at the community level.[18] Following the availability of free basic healthcare services and insurance schemes, Nepal has been faring well in terms of its performance in achieving Sustainable Development Goals. The 15th Development Plan (2019/20-2023/24) guided by the overarching national vision of a "Prosperous Nepal, Happy Nepali" has mainstreamed the SDGs. Their goals, targets, and milestones are all internalised in the 25-year long-term vision 2100 (Nepal Calendar). There have been major improvements in country's health indicators such as decline in the fertility, malnutrition, and mortality rates (Table 1). Some of the milestones achieved by the nation include eradication of maternal and new-born tetanus, leprosy, and trachoma; control of various communicable and infectious diseases; and establishment of regulatory bodies for health research and healthcare professionals. Furthermore, SDGs have been incorporated into the periodic plans of Sub-National Governments, with effective monitoring and assessment procedures.

C. HEALTH EXPENDITURE IN NEPAL

As Nepal moves forward with its new federal model, there's a positive outlook for the potential rapid increase in public health expenditure. This bodes well for the nation's journey towards achieving Universal Health Coverage and ensuring the well-being of all its citizens. Nepal has made significant strides in its healthcare system. Although the total health expenditure (THE) accounted for 4% of GDP in 2019, there's room for growth, especially considering the baseline of 5.3% in 2010.[7,19] The diverse funding sources, including taxes and contributions from external donors, demonstrate a collaborative effort in bolstering the healthcare sector. In 2020, the per capita Public Health Expenditure (PHE) increased to USD 58 from USD 10 in 2001 growing at an average annual rate of 10.03%, reflecting a commitment to providing quality healthcare for its citizen, indicating a growing self-sufficiency in funding healthcare services.[20,21]

Table 1. Health Indicators of Nepal and SDG

Indicators	Nepal 2011[a]	Nepal 2022[b]	Global	SDG 2030[c]
Maternal Mortality Ratio (per 100,000 live births)	229	151	223 *(UNICEF 2020)*	70
Under-five mortality rate (per 1000 live births)	54	33	37 *(UNICEF 2021)*	20
Neonatal mortality rate (per 1000 live births)	33	21	18 (*UNICEF 2021)*	12
Infant Mortality Rate	46	28	28 *(WORLD BANK 2021)*	-
Total fertility rate (births per 1,000 women aged 15–19 years)	2.6	2.1	2.3 *(WORLD BANK 2021)*	2.1
Prevalence of stunting in children under 5 years %	41	25	22.3 *(UNICEF 2022)*	15
Institutional delivery%	35	79	76 (*UNICEF-2020)*	90

[a]2001–2016, Nepal Demographic and Health Survey (NDHS)
[b]Nepal Demographic and Health Survey (NDHS) ** Nepal Multiple Indicator Cluster Survey (NMICS) 2022
[c]National Review of sustainable development goals, report 2020, govt of Nepal

Nepal also has unique methods for pooling funding for the MOHP programmes, which directly assist the poor and are essential in eliminating disparities in access to healthcare services such as a) Safe Motherhood Program to reduce maternal and neonatal mortality and morbidity through preventive and promotive measures and addressing factors causing death during pregnancy, childbirth and post-partum period[22]; b) Free Healthcare: for citizens to access district hospitals and primary health care centres without paying any registration fee, free outpatient, emergency and inpatient services as well as drugs; c) Impoverished citizens services program to provide medical treatment to the deprived and impoverished sections of the society; and d) Bed-for-the-Poor Initiative to allocate 10 % of beds in private hospitals to the poor free of charge.[21]

D. HEALTH SYSTEMS CHALLENGES IN NEPAL

SHORTFALL IN HEALTH SYSTEMS INPUTS

Health systems need essential inputs and requisite support systems to facilitate effective and efficient healthcare service delivery while also ensuring its quality, acceptability, and utilization. The 2021 national survey highlighted shortfall in health systems inputs hampering service availability. For instance, though most health facilities (96-99%) provided basic reproductive and child health care, only 5 % have the capacity for caesarean deliveries. Provisions for diagnosis and treating malaria, HIV and prevention of mother to child transmission have declined over the years. Less than one-third (17%) of all facilities have amenities considered basic to the provision of client services and among them, the share of basic health care centres was minimal (9%). Around 41% of facilities had all equipment considered basic for providing quality services. Basic diagnostic testing capacity was provided in only 17.9% of health facilities, and advance tests were mostly available at the level of Zonal hospital or above. Though majority of public hospitals had pharmacy services (87%), the availability of medicines across the levels of care was differential. The public facilities continued to face staffing shortages, particularly in the Urban Health Centres (18.7%) and the Community Health Units (7.8%).[7]

QUALITY OF CARE

The provisions for ensuring minimum quality of care standards at the point of service delivery, such as infection control, biomedical waste management, availability of amenities, medicines, trained staffs, and guidelines were variable across the country. The Nepal Health Facility Survey (NHFS) 2021 report estimated their availability in less than 1 % of facilities.[7] Less than one-third of health facilities (23.2%) reported any quality assurance activity, with client feedback system operational in only 4 % of them.

HEALTH WORKFORCE

Availability of skilled human resources is imperative for a country to provide quality and affordable healthcare services to its citizens. According to World Health Organization's recommendation there should be 45 health personnel (doctors, nurses, and midwives) available for every 10,000 people, whereas, Nepal has 34 available health experts for every 10,000 individuals in the country.[23] As per NHFS 2021, the PHCCs (74.7%) and the health posts (76.7%) have more sanctioned HRH positions filled as compared to the district level (69.7%) and zonal level and above (68.8%) facilities.[7] Between 2015 and 2021, Nepal witnessed significant shifts in its healthcare workforce composition. In 2015, nurses and paramedics accounted for a substantial 36% of the healthcare workforce. However, by 2021, this proportion plummeted to a concerning 0%, indicating a stark decline in the number of frontline healthcare workers. Moreover, in 2021, nurses and paramedics constituted only 18.7% of the healthcare workforce, a notable drop from the 29% reported in 2015. Geographically, the distribution of Medical Officers (MOs) revealed interesting trend, where the hill region boasted the highest percentage of MOs at 60%, while the terai region followed with 45.8% and the mountain region, conversely, exhibited the lowest proportion of MOs at 27%. This regional variation suggests that academic incentives for remote postings may have played a significant role in

bolstering MO availability in the hill region. Furthermore, the diminished presence of frontline health workers at the community level can be attributed to Nepal's challenging topography, which poses substantial obstacles in ensuring accessible and quality healthcare, particularly in rural areas. These findings underscore the need for targeted policies and interventions to address these workforce disparities and improve healthcare access across Nepal.[22,24]

INCREASED EXPENDITURE ON HEALTH

The country receives financial assistance for health services through various multilateral/external sources which is imperative for the functioning of health systems due to rising cost of health care and expenditures. On average, external financing contributed 17 % of current Health Expenditure (CHE) in Nepal (2000-2017), whereas out-of-pocket spending accounts for nearly 3.2 % of GDP (2018). Budgetary and financial issues that coexist with structural and policy-level structure are obstacles to health service delivery.[23] The lack of public-private partnerships in the delivery of health care and incongruous efforts between the government and non-governmental organisations further complicate the situation and potentially hinder achieving SDG objectives.[24]

INCREASED MORTALITY

Despite the gains in national health indicators, there remains a significant burden of communicable, maternal, neonatal, and nutritional (CMNN) diseases (29.26%). This is further compounded by the growing burden of non-communicable diseases in the country (61.18%).[25] The total number of deaths in Nepal for the year 2019 was estimated to be 193,331. Of these, 71.1 % (95% UI: 67.3-73.8) were due to NCDs while remaining 21.1% (95% UI: 18.5-24.8) and 7.8% (95% UI: 6.9-8.8) were due to CMNN diseases and injuries, respectively. NCDs had a mortality rate of 452.2 (95% UI: 379.9-510.3) deaths per 100,000 population while for CMNN diseases and injuries were 133.8 (95% UI: 112.3-162.3) and 49.6 (95% UI: 38.8-60.0) deaths per 100,000 population respectively indicating a need for concerted efforts towards reducing the rising disease burden of NCDs.[25]

E. OPPORTUNITIES AND WAY FORWARD

Nepal's health-sector-strategy envisages equitable access to quality health services, health sector reforms and multisectoral approach to achieve sustainable development goals. Given the contextual factors in Nepal's health systems, evidence from other developing countries and similar settings may be considered for localized adaptation to strengthen the health systems and accelerate its existing practices across provinces within the country, towards SDGs and Universal Health Coverage (UHC).

ORGANISING SERVICE DELIVERY

The governmental restructure favourably disposes the nation to strengthen a decentralized primary healthcare delivery system. The Female Community Health Volunteers (FCHVs) in the country play an important role and can be a focal point for community participation and mobilization towards increased health seeking behaviour. To strengthen the community processes and engagement, due attention is needed for placing and building the capacity of these frontline workers across diverse regions. Delivery of comprehensive primary health care can be streamlined by effective utilization of new and existing community-based platforms.

The demand generated for services at the community level can be met through gradual strengthening and expansion of responsibilities of FCHVs; ensuring logistical support through demand-driven and decentralised ordering and distribution system; increasing availability of commodities; streamlining reporting processes; and through incentives (monetary/non- monetary) to motivate the workforce at the community level.[26] Strengthening of services at the primary level must also include concurrent expansion and strengthening of secondary and tertiary level facilities to ensure robust referral linkages and continuum of care. Further, the ongoing expansion of service delivery sites and introduction of telemedicine services have the potential to bridge constraints to care access.[27-29]

With the goal of overall health systems strengthening, the nation would need to integrate the long-standing vertical programs with horizontal and community-based health services.[30] The health gains in maternal and child health[4] must be sustained, with the focus of mitigating the burden of preventable diseases. The health systems must also address the dual burden of non-communicable diseases and other infectious diseases. An overall benefit package can be ideated to encompass preventive and promotive measures, early diagnosis, referral, and continuum of care for major health services including NCDs, while also ensuring financial protection. Access to quality medicines and technologies can be improved through domestic production and regulation of their supply, storage, and distribution.[31] While ensuring access, the system should have skilled-personnel, scientifically-backed forecast mechanisms to meet demand, standard treatment guidelines including clinical pathways to regulate supply. Access to diagnostics may be facilitated through a hub and spoke model by linking primary level facilities to higher level facilities.

IMPROVING THE QUALITY OF CARE

Health systems strengthening in the form of fiscal boost, expansion of health infrastructure, service package, access to quality medicines, healthcare technologies, diagnostic services and human resource availability are necessary preconditions for improving quality of health services.

Various quality improvement initiatives include improving the efficiency of hospitals, training and skill mix of the HRH, and promoting appropriate technology.[32] Such initiatives must reflect equity in access and patient centricity in care. Quality of health services and patient safety at facilities can be ensured through standards for infection prevention practices, treatment protocols, healthcare waste management, and through protocols for rational prescription of

medicines and diagnostics. It may be further established through quality accreditation of health facilities.

Given the policy level articulation on quality assurance of health services (2006), the quality improvement system may be strengthened with the help of a comprehensive, clear, and consistent National Quality Control Framework in the country. District level quality assurance groups may be constituted to supervise adherence to quality standards in both public and private sectors.[30,31]

ADDRESSING HRH REQUIREMENTS

There is a need for evidence-based mapping of human resource requirement at all levels of care. At the community level, FCHVs are crucial to improve service-reach. Though there are FCHVs present in over 97 % of rural wards, in view of the expanding population-based programmes, an additional 25 % FCHVs would be needed to extend adequate services and support.[33] For that, a mapping exercise will help the health systems gauge their positioning as per the population requirement. Concurrently, the responsibilities of FCHVs may be expanded to improve access to essential services, for referral and continuum of care.

For keeping up with the epidemiological transition and increasing demand for primary healthcare services in resource-constraint settings, evidence recommend the development of interprofessional teams, integrating task shifting and task sharing mechanism within the system and the development of new professional fields as strategies to overcome service delivery shortfall due to staffing shortage and maldistribution of human resources. Improving the availability of nurses and other non-medical health professionals at the primary level would allow shifting of tasks from the physicians/ medical officers, without compromising the quality healthcare, patient safety, client satisfaction and health outcomes. An expanded team would also help bridging gaps in accessing services across socio-economic groups and regions.[34-38]

The active workforce must be supported with capacity building measures like pre-service and in-service trainings, diplomas in identified specializations, continuing medical education, distance education modalities, and training programmes on competency-based curriculum.[39] Additionally, institutions for HRH training (nurses, mid wives and allied health professionals) should also be established for increasing their knowledge base. Incentives (monetary and non-monetary) to attract and retain skilled HRH in difficult area postings, and to accelerate health outcomes may be introduced.[39]

STRENGTHENING GOVERNANCE AND CONVERGENCE

The existing governance structure presents ample opportunities for strengthening the health sector. Presence of locally elected governments and political-will are highly decisive to heighten health sector accountability, transparency and reduce delays in implementation. The devolution and the introduction of sub-national treasury regulatory system (SuTRA) widens the scope to shift the emphasis towards needs-based planning and resource outcomes.[17,40] Preventable health risks or social determinants of health need multi-sectoral interventions.[39] At the local level, village development committees/ gaunpalikas must be strengthened capacitated to manage health hazards or disasters, to prepare health disaster management strategy, and to strengthen health disaster response systems. To achieve this end, capacity development mapping, institution of multi-stakeholder forum at all levels of governance and grievance redressal at local level are essential.[17]

Collaboration with non-state actors may be attempted to expand access to diagnostic services, emergency transport, blood banks, training, skill development, etc. Regardless, any strategic partnership is strongly recommended to be brought under legal and regulatory frameworks to improve its legitimacy, accountability and transparency.[31]

LEVERAGING INFORMATION MANAGEMENT SYSTEMS AND E-HEALTH INITIATIVES

Availability and completeness of data captured through the information management systems are important to monitor the health system's efficiency and to drive informed decision-making processes. The system must be backed with a disaggregate database (geography, social groups) to inform programs and policies.

The country can take advantage of the existing e-health initiatives for information management and services. The momentum gained on teleconsultation services during the pandemic may be leveraged to expand its reach and uptake such as India's National Teleconsultation services.[41] Telemedicine initiatives on similar lines need to be backed with national guidelines for optimal operations and supervision.[28] Improvement in digital landscape needs multi-sectoral action, while health sector can ensure access to digital devices to its manpower for data capture and management. Skilled HR and users of services must be supported with periodic refresher training to gain familiarity with the digital fora.

Implementational challenges can be circumvented by having IT-contingency plans, and through strategic collaboration with technical partners to build national capacity and facilitate intra-regional customisation. However, in-country capacity building, institutionalization of the information management systems (health information systems, electronic record system, e-reporting, and e-monitoring systems), and integration of IT-based platforms for interoperability are crucial for sustainability.[41]

STRENGTHENING HEALTH SYSTEMS RESEARCH

Policy making and financial decisions should be evidence based and context specific. Prioritising implementation research towards focus areas as identified by the Nepal Health Research Council[42] will also be instrumental in not only identifying gaps or opportunities, but also in strengthening programme implementation, and undertaking course corrections.[42] Evidence can help translate public opinion into policy while also promote an effective stewardship function in health systems performance and management.[39]

CONCLUSIONS

The review of Nepal's healthcare system presents a vivid picture of its evolutionary trajectory, emphasizing the pivotal role of recent governance changes and the adoption of primary healthcare strategies. These developments signify a dynamic response to evolving healthcare needs. The shift towards preventive and community-based care, alongside changes in how healthcare is organized, underscores a proactive approach to improving health outcomes. This progressive shift opens new avenues for building upon existing initiatives. The call for locally tailored interventions in service delivery, quality enhancement, and workforce planning underscores the recognition that healthcare solutions need to be context-specific to be truly effective. This tailored approach acknowledges the diverse healthcare landscape within Nepal, ensuring that interventions resonate with the unique needs of different communities and regions. Moreover, the review underscores the potential for accelerated progress towards critical global health targets, such as the Sustainable Development Goals and Universal Health Coverage. This underscores the transformative potential of strategic, targeted healthcare interventions. Finally, the review emphasizes the necessity of a cohesive, integrated strategy, involving all key stakeholders in the healthcare ecosystem. This collaborative approach ensures that resources are optimized, and efforts are aligned towards overarching goals, such as equitable access, quality care, comprehensive coverage, and financial security. In essence, the review offers a comprehensive roadmap for advancing Nepal's healthcare system, grounded in a nuanced understanding of its current state and the potential for meaningful progress.

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AUTHORSHIP CONTRIBUTIONS

AK and ND conceptualized and defined the intellectual content of the paper. ND, AG and EH contributed to manuscript preparation, editing and review. AK and ND critically reviewed the manuscript and finalized the paper. SG helped in designing the course and supported in providing inputs for themes and structure of the review. The paper has been read and approved by all authors.

DISCLOSURE OF INTEREST

The authors completed the ICMJE Disclosure of Interest Form (available upon request from the corresponding author) and disclose no relevant interests.

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