

Implementation and Assessment of Facilitation Support for Improving Health Insurance Coverage in Achham

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ABSTRACT

Background: Health insurance is a critical strategy for achieving universal health coverage, reducing out-of-pocket (OOP) healthcare expenditures, and improving access to healthcare services. Despite the implementation of the National Health Insurance Program (NHIP) in Nepal, enrolment and renewal rates remain low, particularly in districts like Achham. This study aimed to assess the effectiveness of facilitation support, delivered through patient navigators, enrolment assistants, and community health workers (CHWs), in increasing health insurance coverage.

Methods: A mixed-methods approach was employed. The descriptive analysis examined enrolment trends and assessed the impact of CHW-led counselling on enrolment and renewal processes. The qualitative component explored program acceptability, adoption, feasibility challenges, and systemic barriers encountered during implementation.

Results: Facilitation supports improved health insurance uptake, leading to a 5.1 percent increase in new enrolments within three months. While awareness of NHIP was high (62.7%), only 37.7 percent of households had at least one insured member, and 43.1 percent of policies were inactive. Among those counselled for renewal, 76.3 percent agreed to enrol or renew, with 71.3 percent successfully completing the process. Enrolment increased from 57,556 individuals in FY 2079/80 to 58,630 in FY 2080/81, representing a 1.9 percent growth in Achham district. Despite these gains, service gaps persisted; Stakeholders identified limited availability of enrolment assistants, barriers to referrals, activation time, first service point, healthcare service availability, insufficient financial support, stockouts of essential medications, and procedural complexities as key obstacles.

Conclusions: The facilitation strategy improved health insurance enrolment in Achham by addressing awareness, affordability, and procedural barriers. To sustain impact, efforts should focus on reducing Enrolment Assistant dropout rates, improving the referral system, ensuring timely healthcare services for insured individuals, and providing financial support for low-income groups. Scaling up these targeted improvements can enhance NHIP's effectiveness.

Keywords: Barriers; enrolment; feasibility; healthcare; health Insurance.

INTRODUCTION

Health insurance is a critical financing mechanism for achieving universal health coverage, increasing utilization of health services, enhancing provider accountability, and reducing out-of-pocket (OOP) healthcare expenditures. Globally, OOP costs push around 100 million people below the poverty line and cause financial catastrophe for approximately 150 million annually.¹ In Nepal, OOP expenditure is rising, especially among the poorest and in the Terai and eastern regions.² Between 1995 and 2011, the share of households from the bottom two quintiles facing

catastrophic health expenses rose by 14%.² WHO reports show that current health spending in Nepal increased from 2006-2016, largely driven by OOP payments, pushing 1.67% of the population below the \$1.90/day poverty line.³ Furthermore, 28.6% of the population is multidimensionally poor, meaning they experience overlapping deprivations in health, education, and living standards rather than income poverty alone.⁴ The National Health Insurance Program (NHIP), established under the Health Insurance Act 2074 (2017 AD), seeks to reduce financial hardship, but coverage gaps remain significant despite phased national scale-up.^{5,6}

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METHODS

This study employed a mixed-methods implementation research design to develop, implement, and evaluate a strategy to improve enrolment and renewal in the NHIP in Achham, Nepal. The study was conducted in four sequential phases: (1) rapid assessment, (2) refinement of intervention messaging, (3) implementation of the strategy, and (4) evaluation of the implementation strategy. The study population included Patient Navigators working at Bayalpata Hospital, Community Health Workers (CHWs) working within Nyaya Health Nepal catchment areas, Enrolment Assistants (EAs) from selected municipalities, insured and uninsured patients attending Bayalpata Hospital, and local-level government representatives, including mayors, chairpersons, and health coordinators.

The study was conducted in Achham District of Sudurpashchim Province, Nepal, covering five rural municipalities: Sanfegagar Municipality, Mellekh Rural Municipality, Chaurpati Rural Municipality, Kamalbazar Municipality, and Bannigadi-Jaygadh Rural Municipality. These municipalities fall within the catchment area of Nyaya Health Nepal, which operates Bayalpata Hospital and implements community-based health programs throughout the region. Data collection was conducted between December 24, 2023, and December 23, 2024.

Patient Navigators were defined as hospital-based personnel who assist patients in navigating healthcare services and health insurance processes, while CHWs were community-based frontline workers responsible for health education, outreach, and linkage to health services. Eligible participants included Patient Navigators with at least six months of experience at Bayalpata Hospital, CHWs with at least six months of service within Nyaya Health Nepal catchment areas, EAs from the selected municipalities, patients attending Bayalpata Hospital, and local-level government officials involved in health system governance. Individuals not involved in NHIP-related activities or unwilling to provide informed consent were excluded.

During the rapid assessment phase, eight key informant interviews (KIIs) and three focus group discussions (FGDs) were conducted with Patient Navigators, CHWs, Enrolment Assistants, the Enrolment Officer, insured and uninsured patients, and local government representatives. The objective was to identify barriers and facilitators affecting NHIP enrolment and renewal. Findings from this phase informed the refinement of NHIP communication messages and counselling approaches.

Following message refinement, one Patient Navigator, sixty-eight CHWs, and EAs from the five study municipalities received orientation on NHIP enrolment and renewal procedures, revised communication messages, counselling techniques, and community engagement strategies. These personnel subsequently delivered the revised messages in both hospital and community settings as part of the implementation strategy.

The implementation strategy was evaluated using mixed methods, focusing on four implementation outcomes: acceptability, feasibility, fidelity, and adoption. During the evaluation phase, twenty KIIs and five FGDs were conducted with relevant stakeholders. Implementation outcomes were assessed using Proctor's Implementation Outcomes Framework (Table 1).

For the quantitative component, all available NHIP enrolment and renewal records from the selected municipalities during the study period were included in the analysis; therefore, no sample size calculation was performed. Quantitative data were extracted from the CommCare platform, the Open Insurance Management Information System (OpenIMIS), and the electronic health record (EHR) system used at Bayalpata Hospital. For the qualitative component, purposive and convenience sampling approaches were used to recruit participants with direct experience of NHIP implementation, enrolment, or renewal processes. Data collection continued until thematic saturation was reached.

Quantitative data were analyzed using descriptive statistical methods to assess trends in NHIP enrolment and renewal over the study period. Qualitative interviews and discussions were audio-recorded with participant consent, transcribed verbatim, and translated into English. Data were managed and analyzed using NVivo software. A thematic analysis approach was employed, whereby transcripts were reviewed iteratively to develop a coding framework, identify recurring patterns, and generate themes related to barriers, facilitators, and implementation outcomes.

Ethical approval for the study was obtained from the Nepal Health Research Council, Reference No. 894 (2023 AD). Written informed consent was obtained from all participants before data collection. Participants were informed about the objectives, procedures, potential risks, and benefits of the study, and voluntary participation was ensured. All data were stored securely, and access was restricted to authorized members of the research team to maintain confidentiality.

RESULTS

The implementation process was evaluated across four phases using a mixed-methods approach, incorporating insights from focus group discussions (FGDs), in-depth interviews (IDIs), structured observations, and survey and programmatic data.

In the initial phase, a combination of qualitative interviews and FGDs revealed multiple facilitators and barriers to enrolment in the national health insurance program. Key enablers included the presence of trusted local actors such as CHWs and EAs, who were instrumental in disseminating accurate information about the insurance program. These actors often leverage household visits to answer questions and clarify misconceptions. Community members who had previously benefited from the program also played an advocacy role by sharing positive experiences, further encouraging enrolment. Support from local government bodies, particularly ward officials, was another important enabling factor in some regions.

Conversely, several barriers to enrolment and renewal emerged. A lack of awareness about the program and its benefits was frequently cited by community members. Additionally, the mandatory three-month waiting period between enrolment and benefit activation was viewed negatively, especially by individuals seeking immediate care. Service delivery gaps, including stockouts of

essential medicines, lack of specialist services, and dissatisfaction with referral hospital care led to a low perceived value of the insurance. The process of renewal was also considered complex and time-consuming, particularly in the absence of digital options or adequate assistance. Cultural beliefs further shaped enrolment behaviors, with some individuals expressing reluctance to enroll unless someone in the household was already sick. One FGD participant summarized this sentiment, saying, “People say, ‘Why should I pay for health insurance if no one in my family is sick right now?’”

Drawing on the insights gathered in Phase 1, the intervention team collaborated with local stakeholders to co-develop a simplified, community-informed message. This message emphasized the benefits of financial protection during unexpected health emergencies, clarified eligibility and process steps, and addressed common misconceptions particularly around service limitations and the waiting period. The message was deliberately crafted to be culturally appropriate and easy to understand.

Delivery of this refined message occurred through multiple channels. CHWs provided household-level and facility-based counseling using updated materials. A radio jingle, developed by the Health Insurance Board, was also integrated into the outpatient department (OPD) waiting areas of Bayalpata Hospital to increase passive exposure. As one EA noted, “When people hear

Table 1. Evaluation Framework.

Implementation Outcome:	Operational definition	Key Indicators
Acceptability	This refers to satisfaction of various aspects of facilitation support, for example, message content, delivering strategies, credibility etc.	• Understanding of the message • Comfortable in delivering
Adoption	This means utilization or uptake of facilitation support strategy.	• Number of people enrolled in insurance scheme • Number of people renewing their insurance
Feasibility	It refers to whether the facilitation support strategy is feasible to implement (or actual fit/practicability of strategy) in the real setting.	• Ease of delivering messages at hospital and community; • Co-ordination between EAs, CHWs and patient navigators; • Implementation enablers and challenges
Fidelity	Fidelity means whether the facilitation support strategies are delivered as intended during the implementation phase	• Number of times insurance message played at BH • CHWs attending monthly mothers' group meetings/FCHV meetings to deliver personalized messages • CHWs providing insurance messages during household visits • Challenges in providing and receiving facilitation support

Table 2. Percent of people's enrolment in health insurance by counselling.

Characteristics	Number (n)	Percentage (%)
Poorest identification (N=1797)		
Yes	141	7.8
No	1656	92.2
Heard about insurance (N=1797)		
Yes	1126	62.7
No	671	37.3
Provide Information (N=671)		
Yes	599	89.3
No	72	10.7
Family Enrolled in health insurance (N=1797)		
Yes	678	37.7
No	1119	62.3
How many members (N=678)		
All member	350	51.6
Some members	328	48.4
Condition of Health Insurance (N=678)		
Active	386	56.9
De-active	292	43.1
Counsel for the renewal (N=292)		
Yes	253	86.6
No	39	13.4
Agree to enroll or renew (N=253)		
Yes	193	76.3
No	60	23.7
Sent to enrolment assistant (193)		
Yes	139	72
No	54	28
Ensure enrolment Assistant (N=139)		
Yes	80	57.6
No	59	42.4
Ensure enroll in HI (N=80)		
Yes	57	71.3
No	23	28.8

Total non-insured=1119 (62%)

Ensure enroll in HI= 57

Total insures increased within three months= $57/1119 \times 100 = 5.1\%$

Table 3. Health Insurance Status in Achham District.

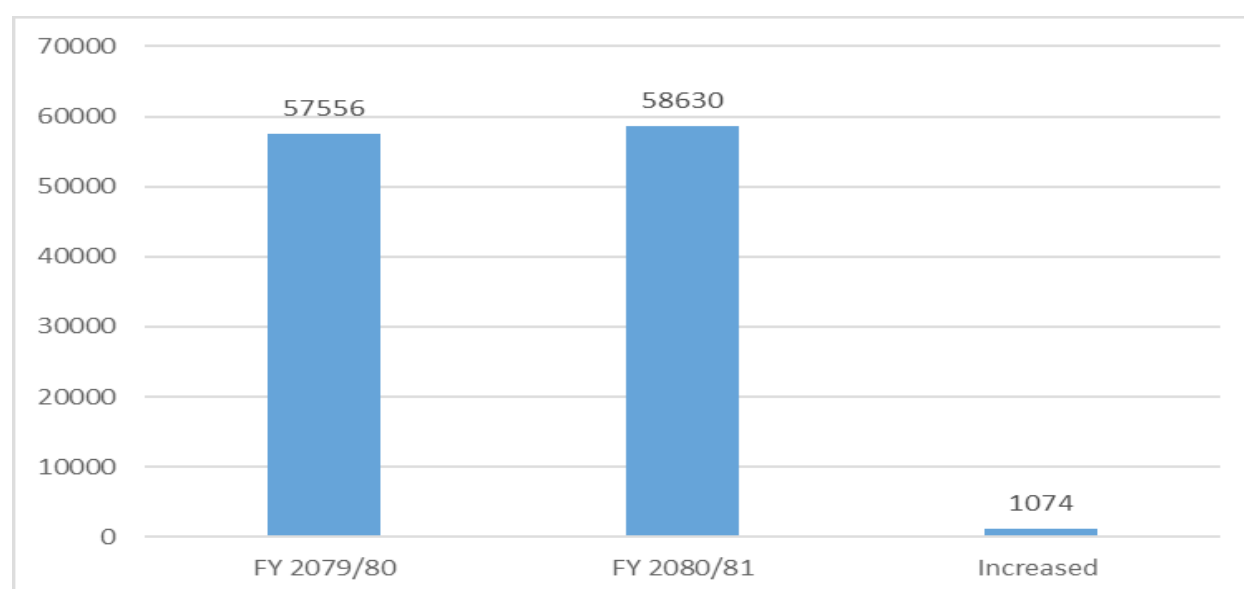
Cycle	New	Renew	Total
2080 Jest	411	2717	3128
2080 Bhadra	128	1888	2016
2080 Mansir	324	2724	3048
2080 Falgun	325	2363	2688
2081 Jest	541	2300	2841
2081 Ashoj	382	1992	2374

Source: Health Insurance office, Achham, Nepal (2081 BS)

Table 4.% of patients enrolled in health insurance program seeking care from Bayalpata Hospital.

Fiscal Year (FY)	Total Number of Patients (n)	Total Number of Insured Patients Seeking Services (n)	Percentage (%)
2078/79	44027	7010	15.9
2079/80	66494	15596	23.5
2080/81	70548	13930	19.7

Source: EHR, Bayalpata Hospital

**Figure 1. Increasement new enrolment within a year at Achham district.**

Source: Health Insurance office, Achham, Nepal (2081 BS)

about insurance on the radio and then from the CHW, they believe it more,” highlighting the benefit of consistent messaging across sources.

The refined strategy was implemented through three coordinated delivery platforms. First, CHWs conducted household visits where they offered tailored counseling based on the family’s insurance status and addressed prevalent myths. Second, patient navigators at the hospital engaged patients nearing policy expiration, providing reminders and instructions for timely renewal. Lastly, the radio jingle continued to be broadcast within hospital settings to reinforce awareness.

Qualitative feedback from CHWs and EAs during this phase indicated a noticeable improvement in community engagement. They reported that families appeared more informed and were asking more targeted questions about

insurance, suggesting an increase in understanding and trust. However, some challenges persisted, particularly regarding unmet expectations around service availability.

In the final phase, both quantitative and qualitative data were used to assess the effectiveness of the refined strategy. CommCare survey data showed that 62.7% of households had heard about the insurance program following the implementation, yet only 37.7% had enrolled. Among enrolled households, 43.1% had inactive policies due to non-renewal. Of those with inactive policies who were counselled by CHWs for renewal, 76.3% expressed willingness to renew, while 71.3% of those who received follow-up supported from EAs successfully renewed or enrolled. Importantly, the total population coverage increased by 5.1% among previously uninsured populations during the three-month intervention period (Table 2).

Data from the local Health Insurance Office indicated modest overall growth in insurance coverage, from 57,556 individuals in fiscal year (FY) 2079/80 to 58,630 in FY 2080/81, a net increase of 1.9%. While the number of new enrolments remained lower than the number of renewals, the intervention contributed to reducing the rate of policy inactivity. Monthly trends (Figure 1 and Table 3) showed fluctuations, with spikes in enrolment around community mobilization campaigns.

EHR data from Bayalpata Hospital further illustrated trends in service utilization by insured patients. The proportion of insured patients accessing outpatient care rose from 15.9% in FY 2078/79 to 23.5% in FY 2079/80 but declined to 19.7% in FY 2080/81 (Table 4). This decline may reflect persistent dissatisfaction with service quality and referral delays, as echoed in qualitative feedback.

Participants in post-implementation interviews described an increased understanding and acceptance of the insurance program. CHWs and EAs felt more confident in explaining the program and noted that families were more receptive. However, they also reported that persistent stockouts and delays in referral services continued to undermine community trust. One CHW expressed this frustration clearly: “People say the message is good, but if medicines are not there when they come, they feel cheated”.

DISCUSSION

The facilitation strategy was effective in marginally improving insurance uptake. Personalized messaging and

community engagement were key enablers. However, sustainability is threatened by operational challenges including limited availability of EAs and inefficient referral systems. Improving financial accessibility, simplifying processes, and strengthening coordination between stakeholders could enhance program impact.

This study assessed the implementation and effectiveness of Nepal’s national health insurance program in Sanfegagar Municipality of Achham District, with a focus on the facilitators and barriers to enrolment and service utilization. Our findings demonstrate that while the program has made important strides in increasing access to healthcare among marginalized populations, several systemic and operational challenges continue to undermine its sustainability and impact.

One of the primary findings of this study is the relatively high level of community acceptance, particularly among senior citizens, Female Community Health Volunteers (FCHVs), and economically disadvantaged populations. This aligns with earlier studies that have documented the financial risk protection benefits of social health insurance in Nepal and its role in improving equity in healthcare utilization.^{7,8} At institutions like Bayalpata Hospital, insured individuals reported greater ease of access and reduced out-of-pocket expenditures, supporting existing literature on the positive effects of insurance on timely care-seeking behavior.⁹

Our study also highlights the crucial role of awareness-raising activities and the involvement of local actors in promoting enrolment. Like previous research, we found that community outreach through radio jingles, health workers, and FCHVs significantly improved enrolment numbers.^{10,11} The engagement of trusted local stakeholders appears essential in improving public understanding and reducing misinformation about the program’s benefits and processes.

Despite these positive developments, the sustainability of the program is threatened by several operational deficiencies. Chief among them is the inconsistent availability and remuneration of EAs. Prior studies have also noted high attrition rates among EAs, largely attributed to inadequate compensation and lack of institutional support.¹² Without a stable workforce to facilitate registration and renewal, the health insurance program risks losing momentum, particularly in rural and remote areas.

Complex referral procedures and prolonged waiting periods emerged as significant deterrents

to participation, especially for patients requiring immediate care. This mirrors earlier findings that bureaucratic inefficiencies and unclear referral pathways can reduce client satisfaction and lower renewal rates.^{13,14} Moreover, the fragmentation of services, frequent medicine stock-outs, and inconsistent quality of care at contracted facilities compromise the perceived value of insurance coverage, echoing challenges reported in other low-resource settings.^{15,16}

Although the program offers subsidies for identified poor households, the fixed enrolment fee remains unaffordable for many, especially those who do not meet official criteria for exemption. This issue is consistent with previous reports that affordability remains a key barrier to universal health insurance enrolment in Nepal.^{17,18} Furthermore, inadequate municipal-level budgeting for insurance-related activities undermines efforts to scale outreach and strengthen equity.

Lack of adequate and accessible information continues to hinder the program's effectiveness. A significant proportion of community members, particularly the elderly and those with low literacy, do not fully understand how to enroll, claim benefits, or navigate the referral system. As shown in other studies, poor communication strategies contribute to misconceptions and reluctance to participate in health insurance schemes.^{19,20} Strengthening communication through user-friendly formats, mobile-based reminders, and in-person counseling could address this gap.

Our findings highlight several practical recommendations for improving program performance. First, ensuring a fixed, performance-based salary structure for EAs could enhance retention and morale, thus improving outreach. Second, streamlining the referral system and reducing the waiting period for benefits would directly respond to community concerns and improve satisfaction. Third, local governments should be encouraged to allocate funds specifically for enrolment subsidies and community education. Finally, strengthening coordination between municipal authorities, the Health Insurance Board, and health facilities could improve program ownership and ensure fidelity in service delivery.

This study has several limitations. First, the intervention period was relatively short, which may have limited our ability to observe long-term trends in enrolment, utilization, and satisfaction. Second, the data relied heavily on self-reported responses, which are susceptible to recall and desirability biases. Third, the evaluation focused on a single rural municipality and may not fully

capture regional variation in health system capacity or community attitudes. Finally, while qualitative data provided rich context, logistical constraints limited the number of FGDs and KIs conducted, which may have restricted the diversity of perspectives captured.

CONCLUSIONS

In conclusion, while the health insurance program in Achham has demonstrated potential through increased initial enrolment and positive community reception, its effectiveness is constrained by several logistical, financial, and structural challenges. Addressing the issues related to Enrolment Assistant availability, simplifying the referral system, improving financial accessibility, and strengthening communication efforts will be crucial steps toward enhancing the program's reach and sustainability. With targeted improvements in these areas, the program has the potential to expand its coverage significantly, ensuring that the most vulnerable populations in Achham receive the health services they need in a timely, efficient, and accessible manner.

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CONFLICT OF INTEREST

The authors declare no competing interest.

REFERENCES

1. Government of Nepal, Health Insurance Board. Dashboard. 2019 Nov 21. Available from: <http://dashboard.hib.gov.np:81/>
2. Gupta I, Chowdhury S. Correlates of out-of-pocket spending on health in Nepal: Implications for policy. *WHO South-East Asia J Public Health*. 2014;3(3):238-246. Available from: <http://www.who-seajph.org/text.asp?2014/3/3/238/206746>
3. Jia L, Yuan B, Huang F, Lu Y, Garner P, Meng Q, et al. Strategies for expanding health insurance coverage in vulnerable populations. *Cochrane Database Syst Rev*. 2014;2014(11):CD008194.doi: <https://doi.org/10.1002/14651858.CD008194.pub3>

4. National Planning Commission, Government of Nepal. Nepal's Multidimensional Poverty Index: Analysis Towards Action. 2018. Available from: https://www.npc.gov.np/images/category/Nepal_MPI.pdf
5. Government of Nepal. National Health Insurance Policy 2013. Kathmandu: Government of Nepal; 2013.
6. Nepal Health Research Council. Assessment of Social Health Insurance scheme in selected districts of Nepal. Kathmandu, Nepal: Nepal Health Research Council; 2018.
7. Acharya D, Wagle BP, Bhattarai R. Illness, healthcare, and health insurance: Socio-economic perspective in Nepalese context. *Nepalese Journal of Insurance and Social Security*. 2019 Dec 31;2(2):1-9. [Article]
8. Paneru DP, Adhikari C, Poudel S, Adhikari LM, Neupane D, Bajracharya J, et al. Adopting social health insurance in Nepal: A mixed study. *Frontiers in public health*. 2022 Dec 15;10:978732. doi: <https://doi.org/10.3389/fpubh.2022.978732>
9. Schwarz R, Nepal P, Acharya B, Adhikari SR, Aryal A, Basnett I, et al. Expenses and national insurance payments at a municipal-level hospital in rural Nepal: implications for strategic purchasing and universal health coverage. doi: <https://doi.org/10.21203/rs.2.20326/v1>
10. Shrestha MV, Manandhar N, Dhimal M, Joshi SK. Awareness on social health insurance scheme among locals in Bhaktapur municipality. [JNHRC]
11. Singh DR, Sunuwar DR, Shah SK, Karki K, Sah LK, Adhikari B, et al. Impact of COVID-19 on health services utilization in Province-2 of Nepal: a qualitative study among community members and stakeholders. *BMC health services research*. 2021 Feb 24;21(1):174. doi: <https://doi.org/10.1186/s12913-021-06176-y>
12. Ranabhat CL, Subedi R, Karn S. Status and determinants of enrollment and dropout of health insurance in Nepal: an explorative study. *Cost Effectiveness and Resource Allocation*. 2020 Oct 1;18(1):40. doi: <https://doi.org/10.1186/s12962-020-00227-7>
13. Ranabhat CL, Subedi R, Karn S. Status and determinants of enrollment and dropout of health insurance in Nepal: an explorative study. *Cost Effectiveness and Resource Allocation*. 2020 Oct 1;18(1):40. doi: <https://doi.org/10.1371/journal.pgph.0003492>
14. Rawal LB, Kharel C, Yadav UN, Kanda K, Biswas T, Vandelanotte C, et al. *Stock-outs of essential medicines among community health workers in low- and middle-income countries: A systematic literature review*. 2022 *BMC Public Health*. doi: <https://doi.org/10.1186/s12889-022-13050-8>
15. Ranabhat CL, Subedi R, Karn S. Status and determinants of enrollment and dropout of health insurance in Nepal: an explorative study. *Cost Effectiveness and Resource Allocation*. 2020 Oct 1;18(1):40. doi: <https://doi.org/10.1186/s12962-020-00227-7>
16. World Health Organization. (2018). *Primary health care systems (PRIMASYS): case study from Nepal*. Geneva: WHO.
17. Baiju AB, Bishwajit G. Predictors of health insurance enrolment and wealth-related inequality in Nepal: Evidence from Multiple Indicator Cluster Survey (MICS) 2019. *International Journal for Equity in Health*, 2021 20, Article 156. <https://doi.org/10.1186/s12939-021-01561-9>
18. Khatri RB, Khanal P, Thakuri DS, Ghimire P, Jakovljevic M. Navigating Nepal's health financing system: A road to universal health coverage amid epidemiological and demographic transitions. *PloS one*. 2025 May 29;20(5):e0324880. [Article]
19. Acharya D, Devkota B, Gautam K, Bhattarai R. Association of information, education, and communication with enrolment in health insurance: a case of Nepal. *Archives of Public Health*. 2020 Dec 14;78(1):135. doi: <https://doi.org/10.1186/s13690-020-00518-8>
20. Bhatt KR, Aryal B, Khanal K, Adhikari A. Knowledge of Health Insurance Program, Utilization, and Service Satisfaction among Insured in Suryabinayak Municipality, Nepal. *Shiksha Shastra Saurabh*. 2024 Dec 31;24:118-31. doi: <https://doi.org/10.3126/sss.v24i1.75381>