Needs Assessment of Leadership and Governance in Cardiovascular Health in Nepal

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ABSTRACT

Background

Good governance and leadership are essential to improve healthy life expectancy particularly in low and middle-income countries (LMICs). This study aimed to epitomize the challenges and opportunities for leadership and good governance for the health system to address non-communicable diseases particularly cardiovascular diseases (CVD) in Nepal.

Objective

The objective of this study was to understand and document CVD programs and policy formulation processes and to identify the government capacity to engage stakeholders for planning and implementation purposes.

Method

A national-level task force was formed to coordinate and steer the overall need assessment process. A qualitative study design was adopted using "The Health System Assessment Approach". Eighteen indicators under six topical areas in leadership and governance in cardiovascular health were assessed using desk review and key informant interviews.

Result

Voice and accountability exist in planning for health from the local level. The government has shown a strong willingness and has a strategy to work together with the private and non-government sectors in health however, the coordination has not been effective. There are strong rules in place for regulatory quality, control of corruption, and maintaining financial transparency. The government frequently relies on evidence generated from large-scale surveys for health policy formulation and planning but research in cardiovascular health has been minimum. There is a scarcity of cardiovascular disease-specific protocols.

Conclusion

Despite plenty of opportunities, much homework is needed to improve leadership and governance in cardiovascular health in Nepal. The government needs to designate a workforce for specific programs to help monitor the enforcement of health sector regulations, allocate enough funding to encourage CVD research, and work towards developing CVD-specific guidelines, protocols, and capacity building.

KEY WORDS

Cardiovascular diseases, Governance, Leadership, Needs assessment, Nepal

INTRODUCTION

Good governance positively affects health performances and outcomes.[1] An effective health system governance that engages and regulates both public and private sectors aids to achieve broader health objectives.[2] Main aim of good governance in health is to follow a participatory approach in utilizing the resources to save lives in a transparent, responsive, and equitable manner. For health care interventions to work, countries need effective policymaking, transparent rules, open information, and active participation by all stakeholders in the health sector.[3]

According to the Nepal Burden of Disease Study 2017 report, a significant increase in the number of deaths is due to cardiovascular diseases (CVD) and it has become the largest contributor of disability-adjusted life years (DALYs).[4] Nearly 22 percent of all deaths in Nepal were attributed to CVD.[5] However the exact prevalence and trend of CVD remain unknown.

Good governance and leadership are essential to improve healthy life expectancy particularly in low and middle-income countries (LMICs).[6] Good health system governance remains a major challenge in most low-middle-income countries (LMICs), contributing to inadequate and unsatisfactory progress in health outcomes.[7]

This study aimed to epitomize the challenges and opportunities for leadership and good governance for the health system to address non-communicable diseases particularly, cardiovascular diseases (CVD). The objective of this study was to understand and document CVD programs and policy formulation processes and to identify the government capacity to engage stakeholders for planning and implementation purposes.

METHODS

Formation of national level-task force and sub-committee of leadership and governance

We formed a national-level task force to coordinate and steer the overall need assessment process. The task force was chaired by the head of Nepal Health Research Council and Dean of Kathmandu University School of Medical Sciences (Principal investigator of the study). There were following members in the task force: Representatives from Policy, Planning and Monitoring Division, Ministry of Health and Population (MoHP); representatives from Health Coordination Division, MoHP; representatives from Non-communicable Disease and Mental Health section, Epidemiology and Disease Control Division, Department of Health Services, MoHP; representatives from Nepal Heart Foundation; patient representatives and co-investigators of T4 Translational Research Capacity Building Initiative in Low Middle-Income Countries (TREIN), Nepal. A sub-committee on the leadership and governance building block was formed composed of co-investigator, research fellows, and research team.

Assessment guideline

We followed the “The Health System Assessment Approach: A How-To Manual “ published by the U.S. Agency for International Development to assess leadership and governance.[3] There were 18 indicators under six topical areas in leadership and governance, which included overall governance, government responsiveness to stakeholders, voice preference aggregation, client power- technical input and oversight, information, reporting, and lobbying; and compact directives, oversight, and resources.

Overall governance reflects the aggregate status of the government in the country and the information collected for the six topical areas under overall governance focuses on how the government relates specifically to the health sectors. The six indicators are: a) voice and accountability, b) political stability, c) government effectiveness, d) rule of law, e) regulatory quality, and f) control of corruption.

Government responsiveness to stakeholders, which includes two indicators: a) What mechanisms are in place to ensure the participation of key stakeholders in the health policy agenda? Which groups are represented during these discussions? b) Mechanisms and strategies used by the government to engage all health stakeholders in policy and planning include workshops to discuss policies and develop strategic plans and widespread distribution of policies and plans to all major health entities.

Voice preference aggregation involving two indicators facilitates external stakeholders to feedback policymakers and also provides the opportunities to influence policy decisions positively. The indicators are a) the public and concerned stakeholders have the capacity and opportunity to advocate for health issues important to them and to participate effectively with public officials in the establishment of policies, plans, and budgets for health services b) willingness of the public and concerned stakeholders to participate in governance and advocate for health issues.

Client power technical input and oversight, which comprises three indicators, enables citizens, citizens groups, and watchdog organizations to monitor and oversee the actions of health providers, ensuring that health services are high quality. The indicators of this topical area are: a) civil society organizations oversee health providers and provider organizations in the way they deliver and finance health services b) the public or concerned stakeholders have regular opportunities to meet with health care providers about service efficiency or quality c) there are procedures and institutions that clients, civil society, and other concerned stakeholders can use to fight bias and inequity in accessing health services.

Information, reporting, and lobbying that includes two indicators not only ensures to formulate evidence-based health policy but also encompasses the influence that providers exert on health policy. a) public and private

sectors providers report information to the government b) service providers use evidence to influence and lobby government officials for policy, program, and/or procedural changes.

Compact directives, oversight, and resources include four indicators that reflect how laws, policies, and regulations that govern the health sectors are formulated and also examine the government to monitor health system performance and provide direction and guidance to the overall health system. The indicators of this topical area are: a) the government provides overall direction to the health system through clear legislation, policies, and regulations b) government officials rely on evidence in policy and planning c) health sector regulations are known and enforced in both public and private training institutions and health facilities d) procedures exist for reporting, investigating, and adjudicating misallocation or misuse of resources.

Stakeholder meeting

The purpose of the first stakeholder meeting was to collect feedback on the planning and execution of the needs assessment project. Stakeholders provided feedback on the development of study methods, conceptual framework, and stakeholder engagement process. The second stakeholder meeting was organized to disseminate the findings.[8] Stakeholders represented different categories which were as follows:

●Heart patients and their family members and caregivers

●Service providers represented by Nepal Medical Association, Cardiac Society of Nepal, Nepal Nursing Association, Nepal Health Professional Council, Female Community Health Volunteer

●Purchasers represented by out-of-pocket payers-patient, Non-communicable disease section, Department of Health Services, Epidemiology and Disease Control Division, Health Management Information System, National Health Training Center

●Payers representative by Health Insurance board, Nursing and social security division, NGOs for CVD

●Policymakers represented by Association of Pharmaceutical Producers of Nepal, Local Pharmacies Department of Drug Administration, Nepal Chemist and Druggist Association, Private for-profit provider-representative and teaching hospitals

●Principal investigators, other researchers, and their funders

Data Collection

The data collection process consisted of desk review and in-depth interviews.

Desk review:

The following documents were reviewed.

•Health laws and policies: National Health Policy 2014, Public Health Act 2015, Nepal Medical Council Act 1964, Nepal Nursing Council Act 1996, Nepal Health Professional Council Act 1997, Nepal Pharmacy Council Act 2000, Integrated Non-Communicable Diseases (NCDs) Prevention and Control Policy of Nepal.[9-15]

•Regulatory standards, codes, guidelines: Nepal Medical Council Regulation 1968, Medicine Registration Guidance 2016, Code of Ethics and Professional Conducts 2017 Nepal Medical Council, Drug Category Rules 1986.[16–19]

•Health sector planning and strategy documents: Nepal Health Sector Strategy 2015-2020, Nepal Health Sector Strategy Implementation Plan 2016-2021.[20,21]

•Reports on civil society engagement in policy formulation and legislation

• Media reports of the policy development process, to identify organizations that influence health policy

•Project and ministry reports on client feedback mechanisms

•International database of the World Bank and Transparency International

In-depth interviews

Desk review was followed by in-depth interviews. We identified and performed in-depth interviews with seven key stakeholders representing the Policy, Planning and Monitoring Division (PPMD) of Ministry of Health and Population (MoHP), Coordination division of MoHP, NCD and Mental Health Section of Epidemiology and Disease Control Division of Department of Health Services, Nepal Medical Council, Nepal Health Professional Council, Nepal Heart Foundation and Cardiac Society of Nepal. We developed interview guidelines based on the "The Health System Assessment Approach: A How-To-Manual." Tools for the interview were pre-tested among staff and faculties of Dhulikhel Hospital in Kavrepalanchowk district. In every interview, the interviewer probed for adequate information. The investigators used an iterative process asking for suggestions in future interviews if required with subsequent interviews probing more deeply into themes emerging in earlier interviews. We conducted interviews in Nepali language in a noise-free room. Each interview was audio-recorded with note-taking ensuring no points were missed. PMSP, SB, SS, and NJ moderated the interviews and lasted from 30 minutes to one hour.

Ethical consideration

We obtained ethical approval from Nepal Health Research Council (NHRC) on 24th April 2018 (Reg. no.176/2018). We obtained written informed consent from all participants. We assured the interviewees that participation in the study was entirely voluntary. All the responses were kept confidential. Investigators did not record or share any of the personal information or identity collected during audio

recording. We stored recordings in laptops secured with passwords. We replaced all names with an alphanumeric code and saved them in a secure password-protected computer, separate from the data. We kept the paper copies in lockers at Dhulikhel Hospital and only the research team had access to it. We will permanently delete all audio recordings and identifying data a year after completion of the study. We did not use any identifiable information during the study dissemination and publication process.

Data management and analysis

We compiled and transcribed the field notes and tape records of the interview. We developed a codebook based on the interview questions and formed an initial reading of interview transcripts. Two independent coders read and coded the transcripts using the codebook. The inter-coder agreement was 90.76%. We grouped the content codes into thematic categories as strengths, weaknesses, opportunities, and threats (SWOT). We reviewed the findings of each case carefully and summarized them as per the domain of the analysis. The results were presented with key quotes that exemplified major themes and concepts We triangulated the data with quantitative findings.

RESULTS

Topical Area A. Overall Governance

1. Voice and Accountability: Every individual can vote to elect seven local-level leaders at the municipality level. These include five ward members, an executive head, deputy executive head at ward level; the mayor and deputy mayor, or chair and deputy chair at the municipality level. The constitution of Nepal provides freedom of association and expression.

Voice and accountability in health planning: Local people are involved in health priority setting and planning at the local level. A seven-step planning process (1. Budget ceiling and guidelines 2. Review of the guideline, budget ceiling, and available resources, 3. Pre-plan formulation meeting 4. Municipality meeting, 5. Project selection 6. Ward committee meeting 7. Municipality meeting to endorse the health program) is followed to determine health priorities and plan health programs.

2. Political stability: Nepal's government changed ten times prior to the 2017 election.[22] However, the government has been stable since the last election with a smooth transition.

3. Government effectiveness: MoHP developed a new strategy considering how effectively the government can work with private service providers and NGOs. NCD and Mental health section under DoHS regularly collects feedback from all related stakeholders (NGO, INGO, Civil societies, EDPs). However, the stakeholders like Nepal Heart Foundation and Cardiac Society of Nepal have expressed dissatisfaction in the government's capacity to implement CVD programs. They opined that the government does not invite them in the planning and budgeting process as well.

"The coordination part is totally lacking. I don't recall any NCD-related work of the government with our heart foundation. However, I am not a full-timer. I go to the meetings whenever needed. But they never invited us" -(Representative from Nepal Heart Foundation)

4. Rule of law: Constitution of Nepal 2015 explains that: (1) Every citizen shall have the right to free basic health services from the State, and no one shall be deprived of emergency health services. (2) Every person shall have the right to get information about his or her medical treatment. (3) Every citizen shall have equal access to health services. (4) Every citizen shall have the right of access to clean drinking water and sanitation.[23]

The Ministry of Health and Population developed the new National Health Policy 2017 on October 14, 2017, with the main goal to ensure the rights of all citizens as a basic human right, to ensure the rights of all citizens, and to make sustainable development goals successful by providing health services through justice compatible and accountable health systems.[24]

Multisectoral Action Plan for the Prevention and Control of Non-Communicable Disease from 2014 to 2020, which also support CVD services, envisions that all people of Nepal enjoy the highest attainable status of health, well-being, and quality of life at every age, free of preventable NCDs, avoidable disability and premature death.[25] Rule of law like Public Health Safety Regulations and Drug Safety Regulations exist.[19,26]

5. Regulatory Quality: Medical and health professional councils govern the licensing of health professionals. In case of medical malpractice, clients can report it to Nepal Medical Council (NMC). The NMC forms a committee to investigate the case. If found guilty, NMC takes action ranging from canceling licenses, revocation of certificates, and prohibition of the practice.[16]

6. Control of corruption: There is a system of internal audit and final audit. TABUCS (a computerized Transaction Accounting and Budget Control System which allows for the capture of basic accounting transactions at the source level, and enforces budgetary control procedures so that no expenditure can take place without an approved budget) helps in maintaining the transparency of resources.[27]

"Health workers in all aspects of health care from lab tests to medicines take a commission from their patients" was stated by one of our participants during the interview.

Topical Area B. Government responsiveness to stakeholders

7. Mechanisms and strategies used by the government for the participation and engagement of all health stakeholders in policy and planning:

MoHP regularly engages FCHVs at the community level, private organizations, NGOs, INGOs, local representatives from three tiers of government in planning and implementing health programs forming and using working groups and steering committees. A 7-step planning process (1. Budget ceiling and guidelines 2. Review of guideline, budget ceiling and available resources, 3. Pre-plan formulation meeting 4. Municipality meeting, 5. Project selection of settlement level 6. Ward commitee meeting 7. Municipality meeting to endorse health program) is available at municipal level for health planning. MoHP is developing a guideline on how to effectively build partnerships with private and NGO sector in health.

"We are now in the process of developing guidelines and strategies for the partnership. This was initiated from the beginning, all these talks for guiding partnership with the private sector. We talked about bringing the policy of this partnership first. Now our policy is an umbrella health policy which came out recently." -(Representative from MoHP)

8. Mechanisms and strategies used by the government to engage all health stakeholders in policy and planning:

The national government is transparent in health sector goals, planning, budgeting, expenditures, and data. The Ministry of Health and Population mobilizes all funds by Sector Wide Approach (SWAP) through pool funding. Ministry with all stakeholders organizes Joint Annual Review (JAR) meeting to discuss the indicators of different health programs in presence of external development partners (EDPs) and provincial ministers. They also organize bi-annual joint consultative meetings with EDPs to discuss priority health areas to be invested.[28]

Topical Area C. Voice Preference Aggregation

9. The public and concerned stakeholders have the capacity and opportunity to advocate for health issues:

There is an initiative from MoHP to invite public and concerned NGOs, INGOs, and civil societies during the establishment of policies, plans, and budgeting. However, the coordination and communication between the government and other stakeholders are also one of the challenges in the health system.

"Coordination and communication with other sectors have been challenging. -(Representative from Policy, Planning and Monitoring Division, MoHP)

The media (television, radio, Twitter and social media, press) offer information and news related to health, in doing so they have the potential to educate, help, and set the policy agenda and influence the views and expectations of their audiences.

10. Willingness of the public and concerned stakeholders to participate in governance and advocate for health issues:

Nepal Heart Foundation, Cardiac Society of Nepal, and Jayanti Memorial Trust are important civil society organizations working in cardiovascular health. Stakeholders have shown interest to participate in policy formulation.

"Many stakeholders are interested in non-communicable disease area and there are initiations from hospitals who think that we need to work on this area. It is ongoing. But when we talk about collaboration, it is never about the interests of only one party. It may bring about various types of issues."-(Representative from NCD and Mental Health Section, DoHS)

Topical Area D. Client power: Technical input and oversight

11. Civil society organizations oversee health providers and provider organizations in the way they deliver and finance health services:

The civil society organizations working in CVD areas are Nepal Heart Foundation, Cardiac Society of Nepal, and Jayanti Memorial Trust. Only a few of them are active in overseeing the delivery and financing of health services by providing their feedback directly to the government.

12. The public or concerned stakeholders (e.g., community members) have regular opportunities to meet with health care providers about service efficiency or quality:

The public has regular opportunities to meet with the health care providers through the Health Facility Operation and Management Committee. The Government has revised and updated the committee guideline for the new federal structure.[29]

13. There are procedures and institutions that clients, civil society, and other concerned stakeholders can use to fight bias and inequity in accessing health services:

Public or/and providers can report any case of violation of ethics to the respective medical or health professional council. If proven guilty, the councils can take appropriate actions like suspension and permanent removal from council registration.[18]

Topical Area E. Service Delivery

14. Health services are organized and financed in ways that offer incentives to the public, NGOs, and private providers to improve performance in the delivery of health services:

Health professionals register their information in respective councils ie. doctors in the medical council, nurses in the nursing council, and allied health professionals in the health professional council of Nepal. Nepal Medical Council is planning to launch the Continuous Professional Development (CPD) program and renewal of doctors' licenses, which are under process.

"To keep the medical professionals updated in knowledge and skills, we are bringing CPD points. After obtaining the license, we keep forgetting people when they don't practice. Now we are correcting that as well. Everything is

for quality control."-(Representative from Nepal Medical Council)

15. Information on allocation and use of resources and results is available for review by the public and concerned stakeholders:

The National Planning Commission and Ministry of Finance allocate the fund for the Health Ministry. Transaction Accounting and Budget Control System (TABUCS) helps in keeping track of the allocation, distribution, and expenditure of the budget in health. After the finalization of budget, the Ministry of Finance develops a red book that includes all the information regarding budget and is also available online on their website.

"Nowadays, the Government's Red book publishes how much budget has been announced. If you go to the Ministry of Finance, you will get this information. There is a Public Procurement Act as a sheet mechanism, there are regulations and anyone can access it. Apart from that, when we come to health, we have health-specific regulations and acts. Everything is now public. That is why there is no secrecy at all."-(Representative from MoHP)

16. Information about the quality of cost of health services is publicly available to help clients select their health providers or health facilities:

Health centers translate the information regarding the quality and cost of health services into Nepali language and circulate it in websites. Health ministry with other health-related organizations, EDPs, partners conduct a Joint Annual Review meeting to present the progress on health indicators and helps in planning for the next fiscal year. For cardiovascular health, national-level data is lacking to show common cardiovascular morbidities among the Nepali population. The main reason for this is the lack of research.

"Another problem is we don't have enough research related to cardiovascular disease. We don't have people who are interested in research. We have some but not many. And that is why we don't have data. We are working on that but we don't have much data." (Representative from Cardiac Society of Nepal)

17. Service providers use evidence on program results, patient satisfaction, and other health-related information to improve the services they deliver.:

While formulating plans and policies, the Ministry of Health and population discuss the evidence generated from national-level data like NDHS, Annual Report with other stakeholders like NGOs, INGOs, and health workers. The Government of Nepal circulates information regarding the quality and cost of health services through websites.

Topical Area F. Information, Reporting and Lobbying

18. Public and private sector providers report information to the government:

Percentage of health facilities (private and public) submitting reports to the HMIS: 2074/75 (2017/18)

- % of public hospitals reporting to HMIS: 96
- % of primary health care centers reporting to HMIS: 98
- % of health posts reporting to HMIS: 98
- % of Non-public facilities reporting to HMIS: 49

19. Service providers use evidence to influence and lobby government officials for policy, program, and/or procedural changes.

The Policy, Planning, and Monitoring Division under the Ministry of Health and Population uses the evidence generated from national-level data like NDHS, Annual Report while formulating policies.

"Recently blood pressure measurement has been added in NDHS, which is new evidence for us. We have our annual report which is also evidence. That is why, when I say that whatever policy or strategy document we make, it is based on the evidence."---- (Representative from PPMD, MoH)

Topical Area G. Compact: Directives, Oversight, and Resources

20. The government provides overall direction to the health system through clear legislation, policies, and regulations.

MoHP involves multiple sectors like education, environment, finance, and other sectors while formulating health policies and regulations. Government publishes health policies on websites and in papers. Constitution of Nepal 2015, Nepal Health Policy 2017, Multisectoral Action Plan for the Prevention and Control of Non-Communicable Disease from 2014 to 2020, Public Health Safety Regulations, and Drug Safety Regulations exist to provide overall direction to the health system. Respective councils formulate the licensing and accreditation process for health providers.

21. Government officials rely on evidence in policy and planning.

The Ministry of Health and Population utilizes the evidence generated from the national level data like NDHS and Annual Report while formulating health policies. Public and private service providers know the health sector regulations but the enforcement is weak due to the new federal structure and lack of appropriate manpower to oversee specific programs. The National Planning Commission and Ministry of Finance allocate the fund for the Health ministry. TABUCS helps in keeping track of the allocation, distribution, and expenditure of the budget in health. After the finalization of the budget, the Ministry of Finance posts the information regarding the budget on their website.

"We spend money that we have received, we have a modality called TABUCS for spending., Through TABUCS, how much was allocated and how much was spent is seen.-(Representative from Policy, Planning and Monitoring Division, MoHP)

Strength, weakness, opportunities, and threats in each topical area of leadership and governance were analyzed based on the findings from desk review and in-depth interviews (Table 1).

Table 1. SWOT Analysis table of topical areas on leadership and governance

Strength	Weakness
Overall Governance	Overall Governance
Stakeholders like NGO, INGO and local levels involve in different government programs planning and implementation process EDPs support the Ministry of Health and Population in various health programs. Proper and clear budget plan through TABUCS is available Development and presence of NCD section for CVD related activities. **Government responsiveness to stakeholders** Stakeholders like NGO, INGO and local levels involve in different government program planning and implementation process Ministry of Health involves media in developing health policy **Voic Preference Aggregation** Research papers related to cardiovascular disease is increasing gradually Other non-government organizations are showing interests to coordinate with government for NCDs programs Different private heart clinics and civil societies are advocating for heart issues **Client power: Technical input and oversight** Almost every government hospital has a social service unit for the needy and poor patients Government seek feedback from stakeholders like private hospitals, NGOs and patients groups for policy planning **Service Delivery** Health delivery system is in a decentralized structure to cover all aspects of the population. Government provides schemes like health insurance, Bipanna Nagarik Kosh and other user fee exemptions for CVDs Government uses evidences came from national surveys and studies while formulating policy and strategies Both public and private hospitals provide pre-service training to their staff **Information, Reporting and Lobbying** Government uses TABUCS system for budgets management and transparency MoHP designates rules and manpower for proper monitoring and evaluation of health programs	Reports on malpractice are lacking. Service delivery is based on organization's capacity Councils provide grades to health bodies on the basis of their quality during accreditation. Our government does not have CVD focused standard protocols **Government responsiveness to stakeholders** Coordination between citizens, government and civil societies is weak Researches related to CVDs are lacking due to lack of funds and interested human resource **Voice Preference Aggregation** Government has adequate fund but does not have sufficient direction to use them **Client power: Technical input and oversight** Doctors and specialists can not give required time to their clients as the ratio between doctors to patients is not matchable Counselling rooms for the patients are not separated in the hospitals Reporting from private and tertiary hospitals are lacking according to HMIS data Specific section for cardiovascular disease is not present in HMIS forms **Service Delivery** Each and every palika does not have a hospital yet. National protocol for Health workers is present but implementation is poor National level data are not available and published on time **Information, Reporting and Lobbying** Paper based letter are still in use Tertiary hospitals do not provide proper records and reports to the government Specific reporting for cardiovascular disease is still lacking
Opportunity	**Threats**
Overall Governance	**Overall Governance**
MoHP disseminates the health information through different modalities like websites, journals, reports etc. Government provides primary diagnosis and free medicine of CVD from lower health level NCD and Mental Health section is planning for development of CVD focused standard protocols. **Government responsiveness to stakeholders** Government provides pre and post training to health workers so that they can also deliver health education in their respective working communities Government collaborates with External development partners for the Health Insurance schemes **Voice Preference Aggregation** Community involves in the planning and implementation of PEN Program **Client power: Technical input and oversight** CVD care workers are conducting more research than before and hence research papers are increasing in numbers **Service Delivery** Health policy is changing with time PEN package is available in almost half of the all districts National Health Policy also includes lifestyle modification facilities **Information, Reporting and Lobbying** Government is planning to develop a disease specific registry system	Country cannot afford all health expenses. **Government responsiveness to stakeholders** Multi sectoral coordination for Cardiovascular disease is still lacking **Voice Preference Aggregation** Private, secondary and tertiary hospitals are very expensive for general population Hospitals involved in health insurance scheme face problems in reimbursement from government. **Client power: Technical input and oversight** Government does not collect feedbacks related to health from respective civil societies during health planning **Service Delivery** Challenges in coordination and communication between policy makers, service providers and consumers is present **Information, Reporting and Lobbying** Private hospitals do not provide reports on time

DISCUSSION

Equality of overall governance of a country is a set of rules by which authority is exercised and it affects the functioning of the health system and the ability of health workers to exercise their duties.[3] Findings from the assessment of leadership and governance in cardiovascular health in Nepal have shown significant strength in current policies. Among seven topical areas having 23 indicators, 65% of the total indicators reflect strengths while 26% shows weakness and around 4% shows opportunities.

In the current federal structure, Nepalese citizens have a significant role in the selection of their representatives in government which represents strong voice and accountability. In total, 34,908 local-level legislative and executive representatives were directly elected in the elections held in 2017. Nepal was politically unstable in the last decade where the government had changed nine times in eight years. The government has been stable since the last election. Political stability is a favorable and strong indicator for making policies and ensuring good governance.[30] There is a rule of law in Nepal which creates an environment where basic public health provisions can be enforced and regulated. Similarly, the health workforce is regulated through licensing exams from medical and health professional councils. However, weak enforcement of health regulations has led to frequent reports of

malpractice and commissioning systems. Unchecked cases of medical malpractice and negligence were the consequences of regulatory shortcomings in Kenya.[31]

In cardiovascular health, government stakeholders are regularly involved in programs conducted by the Ministry of Health and Population. Despite strong willingness expressed by the non-governmental stakeholders in cardiovascular health, they expressed dissatisfaction towards the government for not involving them during policy formulation. Major challenges were a weak economy to plan and implement programs in cardiovascular health and a lack of cardiovascular disease-specific protocols.

The Ministry of Health and Population has shown a strong willingness in engaging all health stakeholders in policy and planning. This has been reflected by the government's attempt in making new guidelines for building effective partnerships with the private and NGO sector in health. After the restructuring of the local bodies following local elections, a new 7-step planning process was implemented and the planning process now ends at the level of the municipality.[32] Mobilization of funding in health through Sector Wide Approach (SWAP) is a strong aspect of government that ensures transparency in budgeting and expenditure. SWAP supports funding in single sector policy and expenditure programs under government leadership, adopting common approaches across the sector and progressing towards relying on government procedures to disburse and account for all funds.[33] Transparency in the budget is also ensured by TABUCS which is a key component of the Financial Management Information System (FMIS). It is a simple accounting system that enforces budgetary control procedures so that no expenditure can take place without an approved budget.[27]

Regarding service delivery for cardiovascular diseases, there are initiatives to decrease the financial cost of treatment of heart ailments targeted towards disadvantaged and medically underserved populations. Valve replacement surgery for rheumatic heart disease has been made free in two national cardiac hospitals in Nepal.[34,35] Children under 15 years of age and citizens above 75 years of age receive free cardiac care under Children Assistance Program and Senior Citizen Program respectively.[34] Findings from national-level surveys are utilized for formulating policies but lack of data and research in CVD is a strong impediment in making CVD-specific policies for Nepal. Information generation is a key component of strong governance. For this to be achieved, demand for information needs to be strengthened at all levels through coaching and mentorship on data generation, use, and analysis.[31]

Overall following challenges are hindering strong leadership and governance in health in Nepal: a) Lack of coordination between government and civil society organizations during policy formulation, planning, and budgeting, b) Weak reporting of health indicators from the private sector, c) Medical malpractice with commission system, d) Expensive health care with ineffective cost control over drugs and services, e) Lack of CVD focused standard protocols at three levels of government, f) Lack of interest among donors to invest in CVD.

Effective governance is crucial for achieving the objectives in any health sector. There is scant literature that analyzed the leadership and governance of the six building blocks of health systems.[36] In this context, our study has explored the leadership and governance aspect of CVD prevention and management in Nepal using standard indicators. The few limitations of this study were CVD specific policies and plans did not exist and we could not approach all the relevant stakeholders due to time constraints.

CONCLUSION

MoHP has shown a strong willingness to partner with all stakeholders for policy and planning in cardiovascular health. The recent decentralized health system of Nepal provides a good opportunity to steer the agenda of cardiovascular health forward through provincial and local level health governing bodies. However, several challenges hinder effective leadership and governance in this sector. Based on the results of this study, we recommend that: MoHP formulate effective strategies for better coordination with civil society organizations working in the field of CVD; MoHP establish consultative working groups with private sector representatives to improve reporting from private health service providers; MoHP designate workforce for specific programs to help in monitoring the enforcement of health sector regulations; Government to allocate enough funding to encourage research in the field of CVD, work towards developing CVD specific guidelines and protocol and capacity building; Government to leverage the opportunities associated with the decentralized health system.

Disclaimer

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