PREPAREDNESS FOR MITIGATING NON COMMUNICABLE DISEASES IN GAINDAKOT MUNICIPALITY, NEPAL: PERSPECTIVES OF KEY-INFORMANTS

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ABSTRACT

Introduction

Non-communicable Diseases (NCDs) are the major public health problem that leads to high morbidity and mortality in the world including Nepal. Government of Nepal has launched the Multi-sectoral NCD Action Plan in 2014 and established NCD and Injuries Poverty Commission in 2016 for the management and control of NCDs nevertheless the implementation status and its outcomes are not identified till date at the local level.

Objectives

To explore the preparedness of the local government for the prevention and control of NCDs at Gaindakot, Nawalpur, Nepal.

Methodology

A qualitative study was conducted in the Gaindakot municipality; Nawalpur to document the key informant's perspectives on health system's preparedness to prevent the potential impacts of NCDs. Face to face Indepth interview was performed using open-ended questions. Interview guidelines were prepared on the basis of building blocks of health system. Information was processed basis on thematic analysis.

Result

The study revealed that health section has NCD preparedness structure but need to strengthening for the better delivery of health services. The study highlights that screening services and the medicine for major NCDs like hypertension and diabetes were available at local level. Limited budget was allocated and health workforce was not trained for NCDs prevention and control. There was no reporting mechanism for NCD related data from local level.

Conclusion

Basic medicine and screening services were provided from the local level to the selected NCDs such as hypertension and diabetes. There was no provision of reporting NCD related information and health workforce were not trained to respond NCDs. Local level health system strengthening is an urgent need to address the increasing burden of NCDs.

KEYWORDS

Non-communicable diseases, preparedness, health system, Nepal

INTRODUCTION

Non-communicableDiseases (NCDs) are emerging as major public health problems throughout the world. Four major NCDs: cardiovascular diseases, chronic respiratory diseases, diabetes and cancer lead to more deaths globally than all others disease combined.[1] NCDs are also major cause of morbidity and responsible for devastating, long term economic consequences for individuals and households in Low and Middle Income Countries.[2] According to the World Health Organization (WHO), the deaths attributed to NCDs in Nepal has increased from 51 percent in 2010 to 66 percent in 2016.[3,4]

Low and middle income countries are making effort towards the achieving the Sustainable Development Goals to provide universal coverage[5] however the burden of NCDs continue to grow[6] That is challenging the health care system to achieve these targets. To address NCDs, LMICs need more resources and also need to redesigned their healthcare systems.[7] In Nepal, annual healthcare investment for NCD management is approximately US$ 16 per capita and 51 percent of disability-adjusted life years are attributed to NCD.[8] Health care pending has only focused on specialized program including vaccine-preventable diseases, maternal and child health and infectious diseases thereby limiting its ability to respond the growing burden of NCDs. Ministry of Health and Population launched the Multi-sectoral NCD Action Plan in 2014[9] and established NCD and Injuries Poverty Commission in 2016[8] nationwide roll-out of WHO's Package of Essential Non-communicable Disease intervention. Despite this progress, available data shows that NCD services fall short of population's needs.[10]

A comprehensive approach is required to decrease the impact of NCDs by reducing the risk factors associated with NCDs. Nepal has recently shifted towards the federal context many changes have occurred in the geographical distribution and health service delivery from central to periphery level. In the present context of federalization, the present study was conducted to explore the preparedness of the local government for the prevention and control of NCDs at Gaindakot, Nawalpur, Nepal.

METHODOLOGY

Study area and participants

Qualitative method was used to explore the preparedness of municipality to mitigate NCDs by using WHO health system framework. Indepth interview was carried out among five key informants of Gaindakot municipality. Key informants were policy makers from the local government and service providers of different health facilities of that municipality. Key informants were selected from the close coordination with municipality based on their position and responsibility. Number of participants were allocated based on the saturation of data. Ethical approval was obtained from Nepal Health Research Council (NHRC) and permission was taken from the municipality and different schools. Confidentiality was assured by using numbers instead of names (P1, P2 and P3 etc) and removed identity from the transcripts. All audio recordings were saved on password protected computer.

Data collection procedure

Indepth interview was conducted to collect information from the key informants using a semi-structured interview guide. Interview guidelines were based on the building blocks of health system that was developed by the help of related literature and expert guidance to assess the response of municipality. Interview guideline was tested among key informants of Devchuli municipality and necessary modification was made. Questions for IDI were broadly divided into eight topics with related probing questions on:

- Perception related to NCDs
- Service delivery
- Health workforce
- Information management
- Financing
- Governance and
- Policy

Data analysis

Analysis was performed according to the building block of health system. The information processing was based on thematic analysis. Audiotapes of the interviews were transcribed then the transcripts were read and generate a list of initial codes focusing on the main topics. Some codes generate main themes or sub-themes, whereas other codes were discarded. Next, reviewing of themes was carried out. After that defining and naming of themes were done.

Validity and reliability were measured in terms of trustworthiness which comprises of dependability, credibility, and conformability. Trustworthiness was maintained throughout the research process. The entire interview was conducted in their local language (Nepali). Respondent's responses were written in notes and recorded in their own words. Dependability of the findings was ensured by asking same set of questions with same method to all respondents and all interviews was conducted by researcher themselves. Credibility of the finding was ensured by shown the data to the respondents in order to ensure correct reflection of their feelings. Conformability was gained through checking and rechecking of the translation and result. All interviews were recorded; transcribed, coded and analysed by the researcher themselves.

RESULTS

IDI was conducted among the key informants of Gaindakot municipality. They were health workers at the health facility, public health inspector and officer at the municipal office and the elected leader of the municipality. The age of the participants was 45-55 years.

Perception regarding NCDs

All participants perceived that the burden of non-communicable disease was in increasing trend. Except P-2 all the participants said that the risk factors were high

among adult population than adolescents. P-2 said that risk was almost equal among adolescents and others groups. The major NCDs that were prevalent in this municipality are hypertension, diabetes and cancer. Participants said that burden of NCDs was increased due to lack of regular physical exercise, dietary habits of eating junk foods and stressful work.

"In past, people used to engage in agriculture, they used to eat fruits and vegetables that cultivate in their own field, they didn't engage in any stressful work. Nowadays, people are doing stressful work; have busy lifestyle and not giving importance to physical activity." (p-3)

Service delivery

All participants mentioned that the screening of NCDs particularly hypertension was done at all health facilities regularly. Screening for diabetes and uterus cancer, cervical cancer was done on periodic basis from health section. All participants mentioned that health facility provides medicine free of cost for different most prevalent NCDs such as hypertension, diabetes and asthma. Laboratory services for the screening of diabetes and different heart disease was also available from three health facilities of Gaindakot municipality.

"We organized two health camp in a year in 'Dhodeni (rural area). In Dhodeni, most of the people have never had checked their blood pressure and level of sugar. While testing sugar level, their result was high i.e 400-500mg/dl. We had also suggested them to go health post for regular blood pressure checkup. We had also informed them about, health post is distributing medicine at free of cost". (p-2)

One participant (P-3) said that orientation program on NCDs was conducted on different community on the presence of health professional organization, local leaders, and community people. He further mentioned that camp was organized for screening thyroid, hypertension and diabetes and cancer in 18 places in every ward with the presence of physician. Municipality conducted health education session in different government schools to aware students about the risk factors of NCDs.

"We are providing health education in schools to prevent the spread of NCDs. We are teaching students to eat home-made foods and to avoid junk foods "(p-1)

P-3 said that they provided health services to the elderly people aged more than 80 years by reaching to their home. They found that most of the health problem of elderly people was related to NCD.

Health workforce

Almost all sanctioned post of health facility under Gaindakot municipality was filled after Samayojan. All the participants mentioned that there was no separated focal person for non-communicable disease. P-4 said that it will be better if they can appoint one focal person in each health facility for the management of NCDs. He also added that package of essential Non-communicable Diseases (PEN) training was currently running in the district and all the health staffs were on the way to participate to this training program.

Among 7 staffs, 4 have already got training on NCDs and in interval of 1 and half month, every staff will get training package (P-2)

Information management

There was no provision of reporting NCDs related data in routine HMIS. One participant (p-2) said that previously they used to refer hypertensive and diabetes patient to Bharatpur hospital but nowadays health they used to treat these patients in their health facility by providing free medicines. P-4 said that there was no exact data related to NCDs in their health section but there was provision of recording of people who take medicine for hypertension and diabetes.

"Now training is running in NCDs when all staffs were trained, we will make separate room and recording and reporting will be maintained properly". (P-1)

Financing

The health budget of municipality was in increasing trend from 6 million in 2074/075 year to 9.5 million in 2075/076. One participant (p-3) said that about 70 thousand conditional budgets was allocated from central government for the orientation and prevention program but from province government no budget was allocated for any NCDs related program. He also added that about 20 lakh was allocated from municipality for awareness program for all communicable and non-communicable disease, screening program for NCDs and elderly health. P-4 said that about 0.9 million was allocated for NCDs prevention and control program from local government. Two participants (P-1 and P-2) mentioned that was no any separate budget allocate for any health facility regarding NCD prevention and control. P-5 said that sufficient budget will allocate for the health in coming future and they focused on health rather than any other thing.

Medicine of diabetes and hypertensive was purchase by health section and they distribute it to us. We only registered the case and distribute medicine to patients. There is no budget separated for NCDs prevention and control in our health facility (P-2)

Availability to medicine

There was availability of free medicines for diabetes, asthma and hypertension at periphery health facility. P-2 said that medicine was purchase from health section and distribute to health facility according to their need. Participants mentioned that laboratory service was also available for measuring blood glucose, Cholesterol, urine test but patients had to pay some money to take this laboratory services.

Governance and leadership

Participants mentioned that first priority has been given to communicable disease than non-communicable disease.

First priority was given to communicable diseases because if one person gets infected, s/he can transmit to 25-30 people at once (P-5)

P-4 mentioned that from central and province level much

more focus was given in communicable disease and there was no reporting mechanism for NCDs. P-5 said that for the prevention of risk factors of NCDs; civil society, health institutions including health workers, local representatives and non-governmental organizations were equally responsible. He added coordination from governmental and non-governmental organization regarding NCDs prevention and control was also very important. P-3 said that health facility alone may not be enough to manage the NCDs risk, there should be formulate clear policy and monitor activities from municipality level. Participants mentioned there was no engagement of any NGO/INGO in the field of NCDs.

For the prevention of NCDs, family members play the major role if we improve our life styles and food habits we can manage most of the disease. Short term awareness is not enough for the control and management. (P-3)

Policy

P-3 said that there was no separate health law in their province as well as in their municipality. P-5 said that they had formulated policy to restrict tobacco related substance around school area but not implemented properly lack of monitoring.

In our first municipal council, we had made policy of not to sell tobacco related products and alcohols within 500m from health institutions. We had made policies but its implementation is challenge and it is the responsibility of all representatives (P-5)

He also added that policy was also formulated to establish park in every ward of municipality so that people can engage in physical activities.

We have made policy to establish park for children and elderly in every ward. Ward no. 1,4,6,8,10 and 11 have already established such park but I don't know that this place has been utilized for teaching yoga, physical activity or not. (P-5)

One participant (P-3) said that they had recommended to policy makers to build large meditation hall for the conducting yoga and other physical activities nevertheless it did not pace in priority.

DISCUSSION

The study revealed that participants perceived that burden of NCDs was in increasing trend and risk factors were seen high among young people due to lack of exercise, unhealthy diet and stressful work.

Findings of the present study indicate that basic drugs for the hypertension and diabetes were available free of cost at the health centres. Similar findings have been observed in the study conducted in two state of India.[11] Our study reveals laboratory facilities were available for diagnostic test related to NCDs that include blood cholesterol and blood sugar level that is similar to the study conducted in a district of south India.[12] Expensive drugs for the treatment of other NCDs were not available in the peripheral level health facility.

Regarding the service delivery, services were mainly focus the management of communicable disease. Our study shows that screening for hypertension and diabetes was done in health centre in a regular basis. This finding was similar with the other study conducted in different state of India.[11] Apart from the screening of hypertension and diabetes, health section used to conduct screening camp for cervical and uterus cancer on periodic basis. Such camps were conducted with the help of different tertiary hospital.

Our study findings show that there was no separated focal person for NCDs and also the available staffs of health centre were not trained regarding the NCDs management. Similar to this, another study indicates that the human resources available for NCD program lack appropriate skills in the management of NCDs.[13] Most of the health facilities Incharge were planning to nominate the focal person for NCDs after their staff got training on NCDs management.

The study revealed there was no mechanism of reporting NCDs related data in routine HMIS. So, there was no availability of NCDs data in a country. Most of the LMICs don't have reliable and systematic data of NCDs.14 Due to lack of reliable data in NCDs that make difficult to develop evidence based policy.

This study shows that the priority has been given to communicable disease than non-communicable disease. Similar to central level all the services and budget were allocated focusing on communicable disease and other health services including child and maternal. Budget is limited to NCDs management and awareness program in municipality. No any separate budget allocated form central level for NCDs control. Similar to this finding the study conducted in India also shows that priorities were given to the communicable disease and reproductive health.[12] In context of our country, the local health system agenda is strongly influenced by national program priorities.

CONCLUSION

NCDs burden was increasing and risk factors of NCDs were more prevalent among youth. Municipality provides screening services and basic medicines that were limited to NCDs such as hypertension and diabetes. There was not provision of reporting NCD related information and workforce were not trained for NCD management.

RECOMMENDATIONS

The study should be conducted to the officials of other municipality of Nawalpur district so that findings can be generalized. There is need to include the perspectives of health care takers so the more evidence can be generated. Health system should strengthen is necessary to provide high quality care to tackle with increasing burden of NCDs.

LIMITATION OF THE STUDY

The study was conducted within the officials of one municipality so it might not represent the hole district. The data was collected from the perspective of health care providers not included the viewpoint of care receiver.

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CONFLICT OF INTEREST

There was no any conflict of interest to declare.

REFERENCES

1. WHO. Global status report on noncommunicable diseases 2014. World Health Organization, 2014.
2. Jan S, Laba T-L, Essue BM, Gheorghe A, Muhunthan J, Engelgau M, et al. Action to address the household economic burden of non-communicable diseases. The Lancet. 2018;391(10134):2047-58.PMID: 296271611 DOI: 10.1016/S0140-6736(18)30323-4
3. WHO. Noncommunicable disease country profiles 2011. 2011.
4. WHO. Noncommunicable diseases country profiles 2018. 2018.
5. Bloom DE, Khoury A, Subbaraman R. The promise and peril of universal health care. Science. 2018;361(6404):eaat9644.PMID: 30139847 DOI: 10.1126/science.aat9644
6. Abubakar I, Tillmann T, Banerjee A. Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. Lancet. 2015;385(9963):117-71.PMID: 25530442 DOI: 10.1016/S0140-6736(14)61682-2
7. Allotey P, Reidpath DD, Yasin S, Chan CK, de-Graft Aikins A. Rethinking health-care systems: a focus on chronicity. 2011.PMID: 21074257
8. Commission TLNP. An Equity Initiative to Address Noncommunicable Diseases and Injuries. Kathmandu, Nepal: The Nepal NCDI Poverty Commission, 2018.
9. Ministry of Health and Population. Multisectoral Action Plan for the prevention and Control of Non-Communicable Diseases (2014-2020). Nepal: Ministry of Health and Population.
10. The Lancet NCDI Poverty Commission. An Equity Initiative to Address Noncommunicable Diseases and Injuries. Kathmandu, Nepal: The Nepal NCDI Poverty Commission, 2018.
11. Panda R, Mahapatra S, Persai D. Health system preparedness in noncommunicable diseases: Findings from two states Odisha and Kerala in India. Journal of family medicine and primary care. 2018;7(3):565-70.PMID : 30112310
12. Elias MA, Pati MK, Aivalli P, Srinath B, Munegowda C, Shroff ZC, et al. Preparedness for delivering non-communicable disease services in primary care: access to medicines for diabetes and hypertension in a district in south India. BMJ global health. 2017;2(Suppl 3):e000519.PMID: 29527334
13. Thakur J, Prinja S, Garg CC, Mendis S, Menabde N. Social and economic implications of noncommunicable diseases in India. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine. 2011;36 (Suppl1):S13. PMID: 22628905
14. Peck R, Mghamba J, Vanobberghen F, Kavishe B, Rugarabamu V, Smeeth L, et al. Preparedness of Tanzanian health facilities for outpatient primary care of hypertension and diabetes: a cross-sectional survey. The lancet global health. 2014;2(5):e285-e92.PMID: 24818084

Legends

- NCD: Non-communicable diseases
- LMICS: Low- and Middle-Income Countries
- US: United States