Multisectoral Action Plan for the Prevention and Control of Non Communicable Diseases (2014-2020)

Government of Nepal

ACRONYMS

BCC	Behavior Change Communication
BP KMCH	B.P .Koirala Memorial Cancer Hospital
CD	Curative Division
DDCs	District Development Committees
DEO	District Education Officer
DoHS	Department of Health Services
DPHO	District Public Health Office
DTFQC	Department of Food Technology and Quality Control
FHD	Family Health Division
IEC	Information Education Communication
OHFP	Oral Health Focal Point
MH	Mental Health
MoHP	Ministry of Health and Population
MoAD	Ministry of Agriculture Development
MoFA	Ministry of Foreign Affairs
MoHA	Ministry of Home Affairs
MoIC	Ministry of Information and Communication
MoST	Ministry of Science and Technology
MoUD	Ministry of Urban Development
MoST &E	Ministry of Science, Technology & Environment
NCDs	Noncommunicable diseases
NHEICC	National Health Education, Information and Communication Center
NHTC	National Health Training Center
NHRC	Nepal Health Research Council
PPICD	Policy Planning International Cooperation Division
PHCRD	Primary Health Care Revitalization Division
VDCs	Village Development Committees
WHA	World Health Assembly

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Part I Introduction

Background

Non-communicable diseases (NCDs) are emerging as the leading cause of death globally and also in the South East Asia region due to many social determinants like unhealthy lifestyles, globalization, trade and marketing, demographic and economic transitions, leading to behavioral and metabolic risk factors. Cardiovascular diseases (CVD), Chronic non-infectious respiratory diseases (like COPD), Cancers and Diabetes Mellitus are referred as essential non-communicable disease with well established common modifiable risk factors.

Tobacco use, harmful alcohol use, unhealthy diet as consumption of less fruits and vegetables, high salt and trans-fat consumption, and physical inactivity are the common behaviorally modifiable risk factors of NCDs while overweight and obesity, raised blood pressure, raised blood glucose and abnormal blood lipids are the metabolic risk factors. Indoor air pollution is another important modifiable behavioral risk factor for the region and the country. Oral health, Mental Health and Road traffic Injuries are also included as additional NCDs in Nepal.

NCDs in addition to posing a huge disease burden have serious socio-economic consequences. NCDs incur heavy costs to individuals, families and societies due to the need of a lifelong treatment, escalating health care costs and loss of productivity. On the brighter side, major NCD risk factors are behaviorally modifiable and are influenced by socio-economic conditions, making socio-economic factors as both cause and effect of these diseases. Therefore, NCDs are preventable or their onset can be delayed if underlying socio-economic determinants and behavioral risk factors are addressed in a multisectoral strategic long term well executed action plans. There are several population based cost-effective interventions that can reduce the impact of NCDs on societies.

WHO Response to Non-communicable Disease

In the year 2000, the World Health Assembly resolution WHA53.17, endorsed the global strategy for the prevention and control of NCDs, with a particular focus on developing countries. Since then, many initiatives have been launched by WHO and other global players to control NCDs. The global commitment to prevention and control of NCDs was further strengthened with the adoption of the Political Declaration at the High-level Meeting of the UN General Assembly on the Prevention and Control of Non-Communicable Diseases by the Head of the States in September 2011 in New York in which Nepal is a signatory.

WHO has developed several policy and technical guidelines for the member countries to address NCDs, especially focusing on developing countries. The documents relevant to the NCD prevention and control in Nepal include:

1. Global Strategy for the Prevention and Control of Non-Communicable Diseases (2000)
2. WHO Framework Convention on Tobacco Control (2003)

3. Global Strategy on Diet, Physical Activity and Health (2004)
4. Resolution WHA60.23 on Prevention and control of non communicable diseases: implementation of the global strategy (2007)
5. 2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Non communicable Diseases (2008)
6. Global Strategy to Reduce the Harmful Use of Alcohol in 2010 (WHA63.13).
7. Global action plan, including indicators and voluntary targets, through resolution WHA66.10
8. Action Plan for the prevention and control of NCDs in South-east Asia, 2013-2020 (2013)

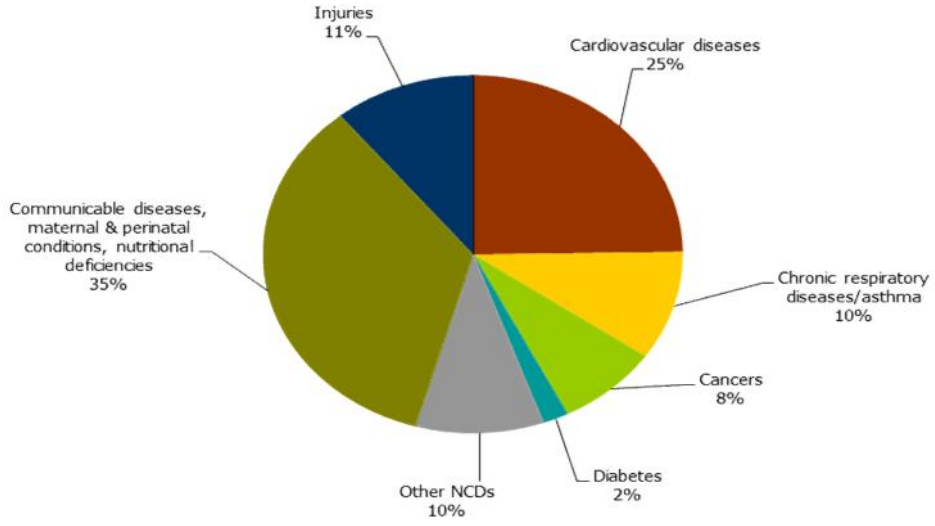
Part II Situation Analysis

Global and regional burden of NCDs

Globally, NCDs account for almost 50% of the total health burden in terms of mortality. Contrary to common believe, a large proportion of NCDs are preventable. They share modifiable behavioral risk factors such as tobacco use, unhealthy diet, lack of physical activity, harmful use of alcohol and exposure to adverse environmental conditions. These risk factors in turn are main causes for the development of Cardio-Vascular disease, Chronic Respiratory Diseases, Cancers and Diabetes.

Also in the South-East Asia Region (SEAR), non-communicable diseases (NCDs) are meanwhile the leading cause of death; an estimated 7.9 million lives are lost due to NCDs accounting for 55% of all deaths in the Region. Most important, NCDs claim lives at a younger age in SEA Region compared to rest of the world. In 2008, the proportion of deaths due to NCDs below the age of 60 years was 34% in SEA Region, compared to 23% in rest of the world. Cardiovascular diseases are the most frequent cause of NCD deaths, followed by chronic respiratory diseases, cancers, and diabetes (Fig 1).

Figure 1.



Burden of NCDs and determinants in Nepal

NCD information on Nepal is scanty. However, available hospital records on NCDs indicate growing burden of NCDs. A population level survey was done to establish a national baseline for NCDs using the WHO approach. According to WHO and WB estimates, NCDs already imposed a remarkable health burden in Nepal. These estimates showed that NCDs accounted for 39 percent of the total country's disease burden, and nearly half of all deaths were due to NCDs. Out of all deaths, 22 percent were attributed to CVDs, 7 percent to cancers, 5 percent to respiratory diseases and 1.7 percent to diabetes.

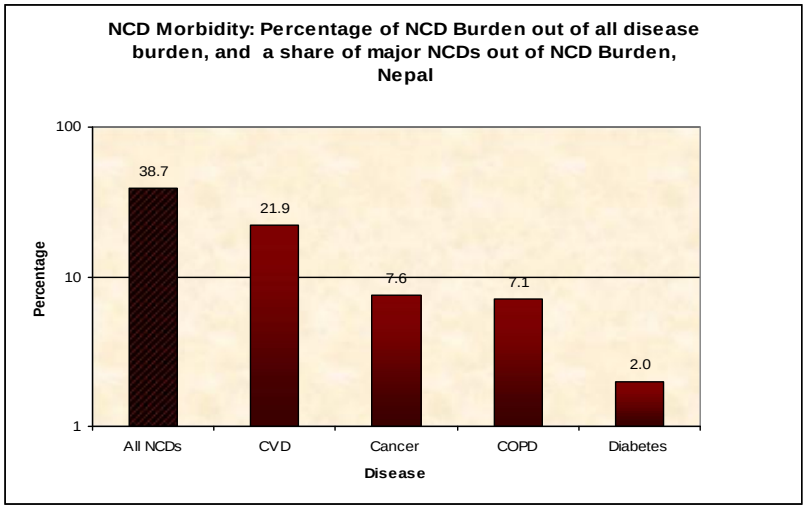


Figure 2.Source: Nepal NCD burden WHO/WB

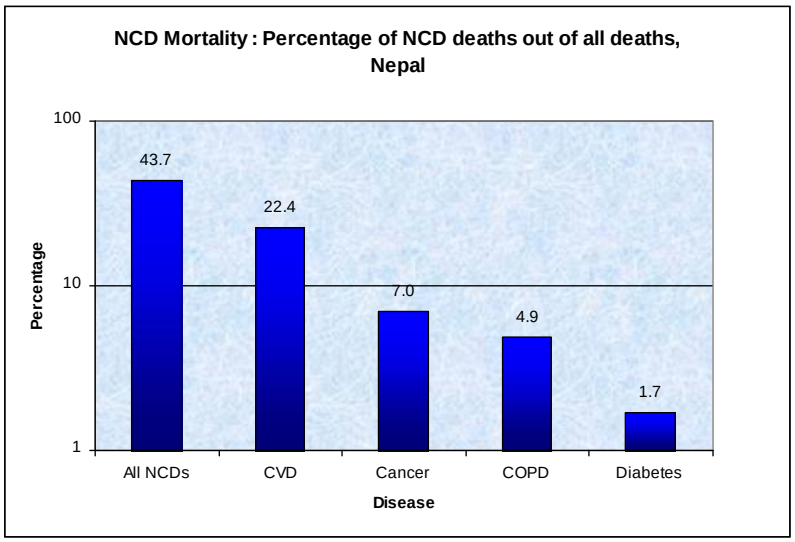


Figure 3. Source: Nepal NCD burden WHO/WB

NCDs in Nepal

Cardiovascular diseases (CVDs). Up-to one-quarter of all deaths in the country were caused by CVDs. It was expected that this percentage would increase to 35 percent in 2030. About one-fourth (25.7%) of the population in the age group 15-69 years was found with raised blood pressure levels (men: 31 % and women: 21 %) (STEPS Survey 2013).

Diabetes mellitus. Prevalence of diabetes was 3.9 percent among adults (IDF 2010), a recent nationwide survey shows a prevalence of Diabetes Mellitus as 3.6% (men: 4.6% and women: 2.7%) among 15-69 years population (STEPS Survey 2013); however some sources indicated higher prevalence of about 11 percent in certain areas.

Cancer. Seven percent of all deaths in the country were attributed to cancers. By 2030, cancer deaths are projected to increase to 12 percent. Cancers of mouth and lungs were dominant in males, whereas cancers of breast and cervix uteri (highest incidence in the Region) were the leading cancers in females.

Chronic Respiratory Diseases (CRD): Respiratory diseases (including COPD and asthma) accounted for about 7 percent of a country NCD burden. Hospital records indicated that prevalence of COPD in males was remarkably higher than in females. COPD in Kathmandu valley has increased by more than 70%. COPD was the eighth common cause for OPD visits and the seventh common cause for hospitalization. The highest mortality and morbidity among the hospitalized patient in Bir hospital was from COPD in FY 2062/2063, and is still the leading cause of mortality in Bir hospital but in morbidity head injury has exceeded it .

Oral Health. One survey has reported that the caries prevalence of 12-13-year-olds is 41% (urban 35% - rural 54%). Approximately 31% of Nepali aged 35-44 years surveyed in another study were found to have developed deep periodontal pockets. In Nepal National Pathfinder Survey 2004, dental caries is a highly prevalent childhood disease affecting approximately 58% of the 5-6 year-old children. It was reported that dental caries particularly in young children attending urban schools was above the recommended target of Federation Dentaire International and WHO making dental caries one of the most prevalent childhood diseases in Nepal. STEPs survey 2013, found that about 9.5% of the population has very poor state of oral health and 23.7% have had oral pain or discomfort. The survey also depicted 36% self reported prevalence of dental caries among 15-69 years old population in 2012/13.

Mental Health. It is estimated that 18% of the NCD burden is due to mental illness. A comprehensive mental health survey has not been done in Nepal. Using the global estimates, approximately 2, 65,000 (1%) Nepalese may be affected with severe mental disorders while 3-5 million (10 - 20%) people have one or other minor mental health problems. The burden may be even higher for Nepal due to 10 years of armed conflict, prolonged political instability, mass youth migration abroad for employment, ageing of the population, poverty and unplanned urbanization.

Road safety As per the police statistics, there were 8,656 road-traffic accidents in the fiscal year 2010- 011 resulting in 1,689 fatalities, 4,071 serious injuries and 9.133 minor injuries. This is high figure considering that many crashes are under reported. Nepal's road crash fatality rate in fiscal year 2009- 010 was 17 per 10,000 registered vehicles, one of the highest in both Asia and the world.[i]

NCD risk factors in Nepal

Tobacco use: The STEPS survey 2013, show that nearly a fifth (18.5%) of the Nepalese population are current smokers and a large proportion smoke daily (15.8%). Smoking is more prevalent among males while still 10.3% of the females are smokers. In another survey, it was observed that Nepal had the highest proportion of females (15%) smokers in the SEAR countries. STEPS survey 2013 also reveal that more than a third (36.1%) of population is exposed to second smoke either at home or at work place.

Unhealthy diet: There are many issues regarding unhealthy diet in Nepal and of the indicator is consumption of vegetables and fruits. Nepalese population consumes less fruits than vegetables; fruit is consumed only up to 2 mean numbers of days in a week. In terms of achieving recommended daily five servings of fruits and vegetables, 99% do not meet the recommendations.

Physical Inactivity: _3.5 percent of the Nepalese population are physically inactive (defined as < 600 MET-minutes per week) as per the STEPS survey 2013. This figure seems promising in terms of physical activeness but it is likely that urban dwellers may be having more sedentary lifestyle than rural population.

Obesity and overweight: About 17.7% were overweight and 4% were obese according to the STEPs survey 2013. Many in the population are experiencing pre-NCD metabolic changes; a fourth of the population was hypertensive or was taking antihypertensive medicines while 22.7 % had raised cholesterol and 25.2% had raised triglycerides.

Alcohol consumption: According to the STEPS survey 2013, 17.4% are current drinkers (last 30 days), and 18.6% are heavy episodic drinkers. Another survey reported that up-to 40 percent of males and 17 percent of females were current consumers of alcohol (one of the highest among SEAR countries).

Air Pollution: According to Census 2011 Report, 74% of households depend upon solid bio-fuels for domestic uses. An analysis of the records of 369 Chronic Obstructive Pulmonary Disease (COPD) patients and 315 control patients admitted to Patan Hospital from April 1992 to April 1994 showed that the odds of having COPD are 1.96 times higher for Kathmandu Valley residents compared to outside valley residents. [ii] Besides indoor air pollution, affect of air pollution from the vehicular and industrial emissions are also a concern as air pollution are increasing in fast urbanizing cities such as Kathmandu.

The STEPS survey 2013 revealed that 15.1 % of the population was exposed to combined 3-5 risk factors. This indicates that the burden of NCD will worsen as risk factors take root in the society as people live in urban environment and ageing starts.

Determinants and Risk Factors of NCDs

The action plan for Nepal will be guided by the pyramidal framework shown below to prioritize NCD interventions. The framework portrays the influence of social determinants, effect of globalization and urbanization on the behavioral risk factors translating into metabolic risk factors and subsequent development of the clinical NCD conditions. The increasing burden of NCDs is attributed to social determinants of health, in especially population ageing, rapid and unplanned urbanization, effects of globalization (such as trade and irresponsible marketing of unhealthy products), low literacy and poverty. The policies addressing social and economic determinants at the macro level have impacts on NCDs. The health sector related interventions generally targeted at the upper level of the pyramid are costlier while interventions at the lower portion of the pyramid caters to larger population are cost effective and multisectoral in nature. The framework demonstrates the need of a comprehensive approach addressing the various levels of determinants for implementing NCD prevention and control.

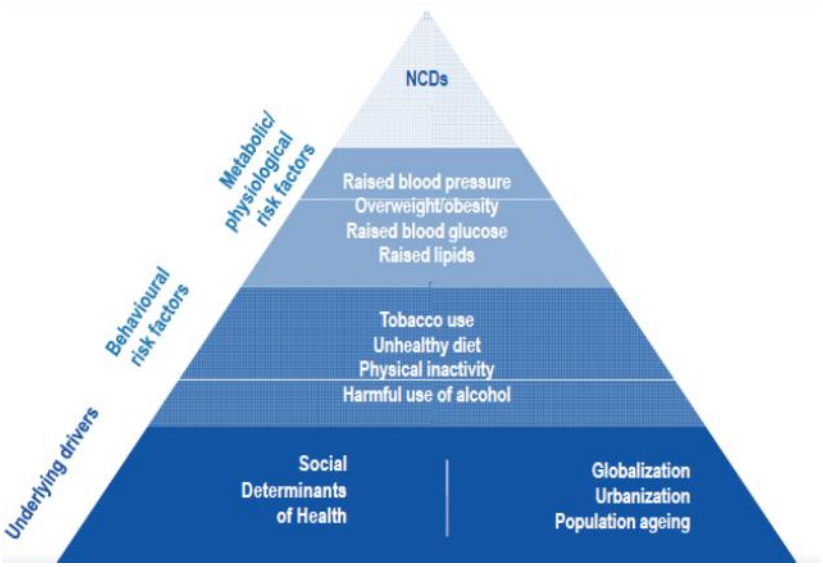


Figure 4. Determinants of NCDs. Source: SEA Regional NCD Action Plan

Progress and challenges in NCDs prevention and control in Nepal

By 2013 in Nepal, NCDs including injuries account for 60% of total disease burden (DALYs). The major NCDs are Cardiovascular Disease (22%), Injuries (19%), Mental Health (18%), Cancer (17%), and Respiratory Disease (6%). If no action is taken, over the next three decades, the economic cost of NCD burden on the country is likely to be such that it might suffocate general development and endanger the goal to graduate from LDC countries.

A number of laudable initiatives have already been taken by both state and non-state actors to provide prevention and control activities for selected areas and populations, however no coherent country-wide inter-sectoral plan to address the growing burden of NCD has been formulated with the exception of the formulation of an multisectoral action plan for road safety 2012-2020.

NCDs were not part of the essential health care service package during NHSP-1 as they were relatively expensive to treat. However, in response to the rising burden of NCDs and injuries, NHSP-2 included expansion of health promotion activities by encouraging healthier lifestyles using BCC via multiple channels to reduce smoking and alcohol consumption, and increase use of seatbelts and helmets. Other initiatives include:

Cancers: In Nepal, cancer cases are treated in the tertiary hospitals like central level hospital, specialized hospitals and medical colleges[1]. District and regional hospitals have no facilities for cancer diagnosis and treatment.

1. [1] Major hospitals dealings with cancer patients are: B.P .Koirala Memorial Cancer Hospital, Bharatpur, Bir Hospital/ National Academy of Medical Sciences (NAMS), Kathmandu, Teaching Hospital, Tribhuvan University, Kathmandu, Kanti Children's Hospital, Kathmandu, Bhaktapur Cancer Hospital, Bhaktapur, B.P Koirala Institute of Health sciences, Dharan, and Manipal Colleges of Medical Sciences Pokhara. Radiation therapy was started in 1991 in Bir Hospital. But now BP Koirala Memorial Cancer

Hospital based cancer registry was initiated in BPKMCH in 2003 and a new network for registration of cancer data was established in Nepal with the support of WHO. However, data are still not available in the public domain and the results cannot be compared with or referenced against international data. Still population based registry and data are lacking.

In the existing National IEC, cancer messages are not covered. BPKMCH prepared and distributed IEC material to 64 district public Health office of the country but this is inadequate. Stronger IEC and media campaign are necessary to educate on cancer.

Tobacco: Smoking in public places was banned since 1992. Nepal ratified the WHO Framework Convention on Tobacco Control (WHO FCTC) following which Tobacco Products (Control and Regulatory) Act 2011 and its regulation was introduced. These regulations are in the stage of initial enforcement and implementation. Several tobacco control activities are being conducted throughout the country. Despite all these, challenges are ahead for effective control of tobacco use. The major challenge is the tobacco industry interference in implementation of the regulatory mechanism. With the recent verdict of Supreme Court on Tobacco case is likely to expedite the implementation. A strong coordination and collaboration mechanism with civil society, and other government organizations and enforcement agencies is critical to tackle these challenges to reduce use of tobacco products.

Alcohol: For the first time in February 1999, the Health Ministry, with the co-operation of WHO, issued the decree to ban alcohol advertisement in the electronic media, specifically radio and television. In August 2001, the Home Ministry announced tough new provisions for the sale, distribution, and consumption of alcohol. But prevalence of alcohol consumption is increasing. Negative consequences of alcoholism are frequently seen in society. Effective context based approach and policies are required to change social norms and reduce harmful use of informal and home brewed alcohol while at the same time tackling industrial alcohol. Nepal has ratified the World Health Organization's Global Strategy to reduce harmful use of alcohol but awaiting a comprehensive alcohol policy and act to address harmful use of alcohol.

Diet and food safety: Department of Food Technology and Quality Control (DFTQC) **was established** in 2000 under Ministry of Agriculture and Development. Food safety related issues started to become matter of increased concern and a priority of the government after the country's ascension to the world trade organization (WTO) in 2004. The animal health and livestock service act 1998 and regulations 1999 have been formed and enforced for healthy production, sale and distribution of animal and their products. But the issues of food adulteration continue to be a public health issue. The Pesticide Act 1991 and Regulations 1993 – regulate the use of pesticides in agriculture including maximum residue limit of

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Hospital, Bhaktapur Cancer Hospital and Manipal Colleges of Medical Sciences and NAMS only providing radiation therapy services.

pesticides; again its practice is poor as majority of farmers are using pesticides beyond the limits.

Indoor air pollution: Indoor cooking and heating with biomass fuels (agricultural residues, dung, straw, wood) or coal produces high levels of indoor smoke that contains a variety of health-damaging pollutants. There is consistent evidence that exposure to indoor air pollution can lead to acute lower respiratory infections in children under five, and chronic obstructive pulmonary disease and lung cancer (where coal is used) in adults.

Mental health: NHSP-2 focuses on piloting scalable mental health projects and training health workers in pilot districts. Between 75 - 85 percent of people with severe mental disorders receive no treatment in resource restrained countries like ours. There are only 70 psychiatrists in Nepal (one for every 3,80,000 population) and other mental health-care providers such as clinical psychologist, psychiatric social workers are even scarcer. There are about 500 beds dedicated to psychiatric patients. While 92 percent of developed countries & 34 percent of developing countries have policy, plan and legislation on mental health, Nepal has neither. The 66 WHA resolution calls on member states to develop National Mental Health action plans. The draft Mental Health Act 2012 prepared in line with the international human rights conventions and CRPD will be hopefully approved soon. Similarly, the Mental Health Policy 1997 is outdated and needs revision. Both are under the process for approval with the initiative of the Mental Hospital.

Oral Health care: NHSP-2 envisions deploying dental surgeons at district hospitals where facilities are available throughout the country and to expand basic dental services by training PHCCs in basic dental/oral check-ups, supporting mobile dental camps in communities and schools. STEPs survey 2103 reports 94.9% engage in daily teeth cleaning and majority (88.2%) use tooth brush. Oral health program still need to finish the agenda to reduce unmet needs in oral health affecting the rural disadvantaged communities with limited access to preventive and curative oral health care services. Settings-based approaches to NCD such as schools provide an important opportunity for health promotion and behavior change. The Oral Health Strategy has been revised in 2013 which will provide directions for the next phase of oral health services.

Road Safety: In line with the global commitment to recognize and fulfill the commitment of Decade of Action for Road Safety led by WHO, a Road Safety action plan (2012-2020) is under implementation in Nepal. Under this effort, recent breathalyzer test initiated by the traffic police have been effective in reducing the accidents due to drunk driving.[iii] Trauma center is being upgraded in Kathmandu and plans to expand the trauma services in the other regions. A two year follow-up workshop of the UN decade of Action was held in Kathmandu on 14-15 May 2013. Road Safety initiative can provide demonstration lessons for effective collaborations in public health and NCDs in particular.

Behavior change communication: Since health needs are diverse and differ by locality due to gender, socio-cultural, ethnic and ecological diversity, it is important to develop variants of information material and approaches in the Behavior Change and Communication (BCC) package which are sensitive to specific sections of population in Nepal. Further, experience shows that locally produced health information materials have the greatest impact. Opportunities at the local level should therefore be encouraged and finances made available to provide or create these local intervention approaches.

WHO has developed a package of feasible and cost-effective multi-sectoral interventions to reduce the burden and impact of NCDs (PEN package). While early detection and treatment of NCD is primarily the prerogative of MoHP, the prevention of risk factors requires a multi-sectoral "Health in All Policy" approach.

Process of Development of the NCD Action Plan

As a follow up on the High Level Political Declaration, the Government of Nepal has decided to deliver on its commitment through a multi-sectoral approach. A multisectoral steering committee was formed in July 2013 under the chairmanship of the Secretary of MoHP to guide the formulation of the NCD Action Plan.

The multisectoral action plan was developed between July and December 2013 with the financial support from WHO and the Government of Russia. A road map was developed with the coordination of the MoHP. In the spirit of multi-stakeholder involvement, a consultative meeting was held with a broad stakeholder community. Twelve thematic groups namely: Cardiovascular Diseases, Chronic Obstructive Lung Diseases, Cancer, Diabetes Mellitus, Oral Health, Mental Health, Road Traffic Injuries, Tobacco, Alcohol, Unhealthy Diet, Physical Exercise and Healthy behavior, Air pollution were formed. The groups were assigned to identify gaps and propose actions for their respective thematic areas. A final workshop was held for thematic groups on December 15-16, 2013. The recommendations of the thematic groups were synthesized into a draft action framework by the MoHP with the technical assistance of the WHO, Country Office. The draft action plan was further reviewed and endorsed by the steering committee on December 29, 2013.

Rationale for the National Action Plan

In Nepal, NCD activities are integrated within the health system focusing on traditional disease management model. Health promotion related to NCDs has been acknowledged in the National Health Policies and National Health Sector Plans but its implementation remained disjointed and unfocussed. Except for a recent initiative for road safety, multisectoral approach has not been harnessed to tackle other NCD risk factors. A multisectoral response is urgently required for Nepal to address the current gaps in prevention and control of NCDs reflected under the situation analysis.

Significance of the document

This is a national document which serves as a reference to guide the implementation of NCD related activities by multisector stakeholders from 2014 to 2020 in Nepal. It contains broad strategic actions and key milestones to be achieved within a specified time frame by the stakeholders. The action plan is of high national priority as NCDs have far reaching consequences politically, socially and economically for Nepal. Consequently, the NCD action plan is being implemented under the aegis of Chief Secretary of Nepal directly chairing the national steering committee of the NCD Action Plan. All the deliverables and the milestones will be closely monitored and supported by the government through engagement of wide range of stakeholders including community based organizations.

To ensure maximum participation, effective coordination and focus on a result based plans by stakeholders, joint annual work planning and stakeholder performance review will be the core mode of operation. The action plan will be implemented in fidelity to the document to

the extent possible, while at the same time being flexible to adopt or adapt any additional priorities and proven cost effective NCD interventions that may emerge in future.

Part III Action Plan for Prevention and Control of NCDs For Nepal (2014-2020)

Nepal NCDs and NCD risk factors

The UNGA resolution only calls upon member states to develop an action plan for the 4 diseases/ 4 risk factors namely: Cardiovascular diseases (CVDs), Chronic Respiratory Diseases (CRD), Cancers and Diabetes and tobacco use, harmful use of alcohol, unhealthy diet, and physical inactivity. The Nepal action plan in addition would address Indoor air pollution, Road safety, Oral health and mental health as one additional risk factor and 3 additional NCDs.

Vision

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.

Goal

The goal of the multisectoral action plan is to reduce preventable morbidity, avoidable disability and premature mortality due to NCDs in Nepal.

Specific objectives

1. To raise the priority accorded to the prevention and control of non-communicable diseases in the national agendas and policies according to international agreed development goals through strengthened international cooperation and advocacy
2. To strengthen national capacity, leadership, governance, multisectoral action and partnership to accelerate country response for the prevention and control of non-communicable diseases
3. To reduce modifiable risk factors for non-communicable diseases and underlying social determinants through creation of health-promoting environments
4. To strengthen and orient health systems to address the prevention and control of non-communicable diseases and underlying social determinants through people centered primary health care and universal health coverage.
5. To promote and support national capacity for high quality research and development for the prevention and control of non-communicable diseases
6. To monitor the trends and determinants of non-communicable diseases and evaluate progress in their prevention and control

Targets

In line with the sentiments of South East Asia Regional NCD targets, Nepal also adopts the same 10 targets to be achieved by 2025.

1. 25% relative reduction in overall mortality from cardiovascular diseases, cancers, diabetes, or chronic respiratory diseases
2. 10% relative reduction in the harmful use of alcohol
3. 30% relative reduction in prevalence of current tobacco use in persons aged over 15 years
4. 50% relative reduction in the proportion of households using solid fuels as the primary source of cooking

5. 30% relative reduction in mean population intake of salt/sodium
6. 25% reduction in prevalence of raised blood pressure
7. Halt the rise in obesity and diabetes
8. 10% relative reduction in prevalence of insufficient physical activity
9. 50% of eligible people receive drug therapy and counseling (including glycemic control) to prevent heart attacks and strokes
10. 80% availability of affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities

The country action plan also relies on the following overarching principles and approaches.

Focus on equity: Policies and programmes should aim to reduce inequalities in NCD burden due to social determinants such as education, gender, socioeconomic status, ethnicity and migrant status.

Multisectoral actions and multi-stakeholder involvement: To address NCDs and their underlying social determinants and risk factors, functioning alliances are needed within the health sector and with other sectors (such as agriculture, education, finance, information, sports, urban planning, trade, transport) involving multiple stakeholders including governments, civil society, academia, the private sector and international organizations.

Life-course approach: A life-course approach is key to prevention and control of NCDs, starting with maternal health, including preconception, antenatal and postnatal care and maternal nutrition; and continuing through proper infant feeding practices, including promotion of breastfeeding and health promotion for children, adolescents and youth; followed by promotion of a healthy working life, healthy ageing and care for people with NCDs in later life.

Balance between population-based and individual approaches: A comprehensive prevention and control strategy needs to balance an approach aimed at reducing risk factor levels in the population as a whole with one directed at high-risk individuals.

Empowerment of people and communities: People and communities should be empowered to promote their own health and be active partners in managing disease.

Health system strengthening: Revitalization and reorientation of health care services are required for health promotion, disease prevention, early detection and integrated care, particularly at the primary care level.

Universal health coverage: All people, particularly the poor and vulnerable, should have access, without discrimination, to nationally determined sets of the needed promotive, preventive, curative, rehabilitative and palliative basic health services, as well as essential, safe, affordable, effective and quality medicines and diagnostics without exposing the users to financial hardship.

Evidence-based strategies: Policies and programmes should be developed based on scientific evidence and/or best practice, cost-effectiveness, affordability, and public health principles.

Management of real, perceived or potential conflicts of interest: Public health policies for the prevention and control of NCDs should be protected from undue influence by any form of vested interest. Real, perceived or potential conflicts of interest must be acknowledged and managed.

Alignment with the Regional NCD Action Plan

The Nepal action plan endorses the guiding principles of the SEAR NCD Action plan (2013-2020). Similar to the Regional Action Plan, Nepal action plan is categorized under the four broad actions areas and adopts eleven strategic policies approaches:

Action Areas

Action area 1: Leadership, advocacy and partnership. Actions under this area aim to increase advocacy, promote multisectoral partnerships and strengthen capacity for effective leadership to accelerate and scale-up the national response to the NCD epidemic. The major highlights under this action area include:

- Establishment of National Steering Committee for NCD Prevention And Control chaired by Chief Secretary,
- Creation of functional NCD Unit at the MoHP to coordinate NCD activities,
- encouraging formation of regional and district NCD committees to oversee activities at each level, numerous inter-sectoral planning and
- Encouraging review of work plans and sharing lessons of implementation.

To increase funds for scaling up interventions, increase in tax funds from tobacco and alcohol is proposed to be channelled to NCD activities

Action area 2: Health promotion and risk reduction. Actions under this area aim to promote the development of population-wide interventions to reduce exposure to key risk factors. Major actions prioritized are enforcement of the existing tobacco regulations, encourage implementation of alcohol policies in line with the Global Strategy to Reduce Harmful Use of Alcohol, encourage increase consumption of fruits and vegetables and legislate ban of food products with high transfat and reduce salt consumption. Community based projects to reduce indoor air pollution will be scaled up in rural communities. Structured media campaigns using clear, consistent and coherent messages will be disseminated using various media channels to educate public and specific population groups on the national recommendations of diet, physical activity, other risk factors. Media campaigns will also be conducted to educate licensees on alcohol, tobacco, alcohol and other food sellers on their legal and social responsibilities to minimize clients to NCD risk exposure. Networking with community groups, schools and assessing role of FCHVs are planned to expand NCD prevention and control.

Action area 3: Health systems strengthening for early detection and management of NCDs and their risk factors. Actions under this area aim to strengthen health systems, particularly the primary health care system. The Package of Essential NCDs (PEN) will be piloted in the first two years and then expanded to other primary care settings in the country in the second phase of the project. In this process, list of essential drugs for NCDs including psychotropic drugs for treatment of mental illnesses and other diagnostic services will be defined and incorporated. Competence of primary health care workers to handle NCD management will be improved through training and human resource capacity development. A three tier referral system will be promulgated for NCDs management:

- First tier at the PHC level,
- middle tier at the zonal and district level hospitals,
- third tier at the super Specialty centres.

Action area 4: Surveillance, monitoring and evaluation, and research. To improve availability and use of data for evidence-based policy and programme development there are evaluation and surveys under each NCD risk factors including for oral and mental health. Most crucial is five yearly STEPS survey which will provide end line assessment of NCD action plan. Other surveys are pilot testing of sodium urinary excretion level, national psychiatric morbidity survey, assessment of fluoride content in water and assessment of physical infrastructure for walk-ability in urban settings. To improve access to NCD data for decision making, NCD information including mental health indicators will be integrated in the HMIS. The vital registration systems will be reviewed to improve the data collection and quality.

Research skills will be advanced through training of research teams on NCD research methodologies and encouraging intuitional linkages outside and within Nepal to conduct primary research and evaluation in NCDs.

Eleven strategic policies

High political commitment: To have high level of political commitment in line with country international commitment, NCD multisectoral action plan will be linked to the head of state/his representative Chief Secretary Government of Nepal

Multisectoral response: Accelerating and scaling up national response to NCD epidemic by setting functional mechanism for multisectoral partnerships and effective coordination, effective leadership and sustained political commitment and resources for implementation of NCD action plan

Tobacco: Strengthening enforcement and compliance to Tobacco product (control and regulatory) Act, 2011 and improving public awareness to hazards of tobacco use

Alcohol: Reducing commercial and public availability of alcohol and implementing social mobilizing programs to reduce harmful use of alcohol

Unhealthy diet: Encouraging increased consumption of fruits and vegetables, reducing consumption of salt, saturated fat and trans fat

Physical inactivity: Improving built environment and promoting health beneficial physical activity through supportive policies in key settings

Indoor air pollution: Reaching communities and areas with poor indoor air quality as a result of use of biomass fuels for cooking and heating, and providing support with alternative means of energy to reduce adverse health impacts

Essential NCDs (CVDs, COPDs, diabetes and cancer): Strengthening health system competence, particularly the primary health care system to address common essential NCDs particularly CVDs, COPDs, diabetes and cancer, along with the additional NCDs and empowering communities and individuals for self-care

Oral health: Improving access to essential oral health services through community oriented oral health focusing on preventable oral diseases and oral care

Mental health: Improving basic minimum care of mental health services at the community and improving competency for case identification and initiating referral at primary care level

Surveillance, research, monitoring and evaluation: Strengthening systematic data collection on NCDs and their risk factors' situation, program implementation and using this information for evidence-based policy and programme development

Stakeholder Analysis

The table below (Table 1) shows that stakeholders have overlapping roles in enforcement and service delivery functions. Ministries have varying influence, position and potential impact in NCD prevention and control. Depending on their area of influence and responsibilities, ministries can champion for the implementation of interventions. For instance, Ministry of Physical Infrastructure and Transport and Ministry of Urban Development can play role in addressing built environment to promote physical activity and pedestrian friendly structures to improve road safety while the Ministry of Health and Population and Ministry of Education have wider roles in public education and providing services. Few ministries having greater influence, position and impact for NCD action plan are those with enforcement responsibilities and those responsible for education and service delivery. From this quick analysis, it is clear that the regulatory agencies, enforcement bodies, service providers need to ensure pragmatic mechanisms of coordination for planning, implementation and sharing lessons for NCD prevention and control. In addition to the government agencies, the civil societies, non-governmental organizations and private enterprises also have influence and opportunity in prevention and control of NCDs.

Table 1: Key stakeholder NCD related functions

Key agencies	Tobacco use		Alcohol use		Physical inactivity		Transfat		Indoor air pollution		Outdoor air pollution		Mental health		Oral health		Road crashes		Key NCDs	
	Enforcement	Educ./service delivery	Enforcement	Educ./service delivery	Enforcement	Educ./service delivery	Enforcement	Educ./service delivery	Enforcement	Edu./service delivery	Enforcement	Educ./service delivery	Enforcement	Educ/ service delivery	Enforcement	Educ/service delivery	Enforcement	Educ/service delivery	Education	Management
Ministry of Phys.infra.& Transport.					*			*			*						*	*		
Ministry of Education		*		*		*		*		*		*		*		*		*	*	
Ministry of Home Affairs	*	*	*	*			*		*				*				*	*		
Ministry of Urban Development					*						*							*		
Ministry of Agricultural Development								*												
Ministry of Federal Affair and Local Development	*		*		*						*						*		*	
Ministry of science, Technology and Environment											*									
Ministry of Health and Population		*		*		*		*		*		*		*		*		*	*	*
Civil Societies/NGOs		*		*	*			*		*		*		*		*		*		
Private enterprises	*			*	*			*	*			*							*	*

Role of the key ministries and other stakeholders

The potential roles of the key ministries and other agencies are specified in the following table.

Table 2: Roles of key ministries and other stakeholders

Sl. No.	Ministry/agency	Potential roles in NCD prevention and control
1.	Office of Prime Minster and Council of Ministers/Chief Secretary	Coordinate for annual National Steering Committee meeting and circulate guidance of the committee to the stakeholders
2.	Ministry of Education	Health education on NCD prevention in schools through curricular or non-curricular approaches , enforcement of ban of food with high transfat and physical activity, consumption of alcohol and tobacco in school premises
3.	Ministry of Youth and Sports	Promotion of national guidelines for physical activity and diet
4.	Ministry of Home Affairs	Enforcement of tobacco, alcohol, road and traffic regulations
5.	Ministry of Agriculture Development	Promote production of fresh vegetables at affordable prices and monitor food safety
6.	Ministry of Information & Communication	Regulate ban on advertisement and sponsorships by alcohol, tobacco and food
7.	Ministry of Industry	Pricing and taxation of tobacco, alcohol and food products
8	Ministry of Finance	Pricing and taxation of tobacco, alcohol and food products
9.	Ministry of Commerce and Supplies	Pricing and taxation of tobacco, alcohol and food products Monitoring and management of import /export good
10.	Ministry of Urban Development	Enforcement and implementation of urban design Drinking water and sanitation
11.	Ministry of Physical Infrastructure and Transportation	Enforcement of road safety regulations
12.	Ministry of Science, Technology & Environment	Set standards to reduce indoor air pollution Enforcement of environment guideline & monitoring
13.	Ministry of Health and Population	Mass media campaigns for prevention of NCDs, provision of clinical services for NCD patients
14	MOFALD	Conduct awareness program locally WASH To nominate local leader as a goodwill ambassador

15.	CBOs /NGOs/INGOs	Promotion of NCD services , health education and pilot NCD initiatives
16.	Private Sector	Assert corporate social responsibility by promoting physical activity at work place, creating smoke free workplaces, and making work accessible to food free of transfat

Part IV Operational Framework

As emphasized earlier, the implementation of the National Action Plan requires the engagement of all relevant stakeholders from within the government, non-governmental and private sectors. It is important to acknowledge that a substantial portion of the activities in this national strategic plan are outside the mandate of Ministry of Health. Therefore effective mechanisms are required to coordinate the implementation of the action plan.

Three Stages of Implementation

The Multisectoral Action Plan will be implemented in two phases.

Phase I: The first phase will be implemented till the end of 2016. Under this phase, focus will be to

- restructure high level committees,
- initiate a functional effective NCD Unit/Department,
- plan and implement pilot interventions,
- streamline procurement and supply systems,
- improve and incorporate National health information systems and
- Complete baseline information system.

A detail mid-term evaluation of the action plan will planned at the beginning of 2016 and conducted at the end of this phase.

Phase II: The second phase will be implemented from 2017 through 2020. This phase will focus to scale up Phase I interventions. A second midterm evaluation for achievements/short comings analyzing strength and weaknesses with opportunities and threats of action plan will be done at the end of 2018.

Capacity building efforts of institutions, human resources development, media campaigns and communications will continue throughout the plan.

Phase III: The third phase will be initiated towards the end of 2019 to plan for the NCD action plan II for Nepal. This will lay step up action to achieve 2025 targets based on the lessons of the current NCD action plan.

Institutional arrangements

High level Committee for Control and prevention of NCD

At the highest and national level, the Action Plan proposes the creation of a “National Steering Committee for NCDs”, chaired by Chief Secretary GON . The Secretary of Ministry of Health and Population will be the member secretary with key other ministry secretaries/dedicated joint secretaries as members.

Chief Secretary	Prime Minister's Office	Chair
Secretary	Ministry of Finance	Member
Secretary	Ministry of Federal Affairs and Local Development	Member
Secretary	Ministry of Education	Member
Secretary	Ministry of Youth and Sports	Member
Secretary	Ministry of Home Affairs	Member
Secretary	Ministry of Agriculture Development	Member
Secretary	Ministry of Information and Communication	Member
Secretary	Ministry of Industry	Member
Secretary	Ministry of Commerce and Supply	Member
Secretary	Ministry of Urban Development	Member
Secretary	Ministry of Physical Infrastructure and Transportation	Member
Secretary	Ministry of Women Children and Social Welfare	Member
Secretary	Ministry of Labor and Employment	Member
Secretary	Ministry of Science, Technology and Environment	Member
Secretary	Ministry of Law and Justice	Member
Secretary	National Planning Commission	Member
Secretary	Ministry of Health and Population	Member Secretary

The Terms of Reference for the Committee will be:

- To provide cabinet level policy directions related to NCD control and prevention
- To ensure that the implementation of the National Action Plan is reflected in the annual budget and plans of the participating Ministries
- To monitor and report on national commitments to UN GA and WHO resolutions

National Committee for Control and Prevention of NCDs

National Committee for NCDs, chaired by the Secretary for Health, provides a planning and monitoring and information exchange forum for the Ministries involved in the implementation of the plan.

Secretary	Ministry of Health and Population	Chair
Joint Secretary	Prime Minister's Office	Member
Joint Secretary	Ministry of Finance	Member
Joint Secretary	Ministry of Federal Affairs and Local Development	Member
Joint Secretary	Ministry of Education	Member
Joint Secretary	Ministry of Youth and Sports	Member
Joint Secretary	Ministry of Home Affairs	Member
Joint Secretary	Ministry of Agriculture Development	Member
Joint Secretary	Ministry of Information and Communication	Member
Joint Secretary	National Planning Commission	Member
DG	Department of Drug Administration	Member
Director	National Public Health Laboratory	Member
Director	National Health Education, Information and Communication Center	Member
Director	National Health Training Center	Member
Director	Primary Health Care Revitalization Division	Member
Chief Specialist	Public Health Administration, Monitoring & Evaluation Division	Member
Member Secretary	Nepal Health Research Council	Member
Chief	Curative Service Division	Member Secretary

The Terms of Reference for the Committee will be:

- To mandate government and non-government entities / units to budget and carry out activities listed under the multisectoral NCD action plan
- To plan and manage Biannual Review of the NCD Multisectoral Action Plan
- To monitor and review NCD Multisectoral Action Plan

Coordination Committee for Control and Prevention of NCDs

The committee will be chaired by the Chief Specialist, Curative Service Division.
The members will be adequately represented from health and non-health sectors, academia, Civil Societies and Community Based Organizations. Representative from society working in NCDs. The members from non-health sectors will include but not limited to enforcement bodies for Road Safety, Tobacco, Alcohol, Environment, Trade, Agriculture and Police.
Under Secretary CSD : member Secretary

The key function of the Coordination Committee will be to:

- To provide guidance from MOHP to government and non-government entities / units mandated with implementation of activities under the NCD multisectoral action plan
- To coordinate annual performance reviews of the stakeholders and monitor the targets and indicators
- To oversee the joint annual work planning and workshops of stakeholders
- To prepare annual performance reports on NCDs

Ad hoc Committees for Control and Prevention of NCDs :

Under the guidance of the Coordination Committee ad hoc committees may be formed to develop specific products required in the course of implementing the multisectoral NCD action plan.

Regional and District NCD Prevention and Control Committees:

These committees will be headed by the regional and district NCD coordinators. The members will be from health and non-health government sectors, enforcement units, NGOs, civil societies and CBOs.

The key responsibilities of the committees will be:

- To advocate for the implementation of the plan
- Coordinate implementation of the NCD work plans by the stakeholders
- Coordinate enforcement of regulations related to alcohol, tobacco, diet, road safety and other health promoting regulations
- Facilitate sharing of experiences among stakeholders
- Share the implementation status to the Technical Committee at the MoHP

Strategic Implementation mechanisms

Joint Annual Work planning

The purpose of having a joint annual work plans is to ensure coordinated planning and implementation of multisectoral NCD Action Plan in a true multisectoral manner. The work plan discussions will encourage exchange of ideas to fill in the implementation gaps and

discuss challenges and solutions, generate understanding of the shared responsibility, improve transparency in progress and performance by other sectors. The joint annual work plans can be achieved under two processes: The multisectoral stakeholders will present their work plan to the technical committee at the joint annual workshop. After the endorsement of the work plan by the technical committee, stakeholders will integrate their work plans within their annual sectoral plans.

Annual stakeholder performance reviews

Similar to the joint annual work plan, conducting annual stakeholders' performance review is critical element of implementing results-based national action plan. A standard performance review tool will be developed to assess fidelity, dose and coverage of activities as planned in the work plan. Performance review on health service delivery, road safety, enforcements for alcohol, tobacco and dietary regulation and media campaigns are a must. This exercise will/can be outsourced to an independent firm with no conflict of interest to get a non-biased performance review. The assessment report will be submitted to the technical committee and the National Steering Committee. While performance review of a wide range of stakeholders will be attempted, reviews of MOHP, Police, Trade , Industries, Transport and Road Safety and Ministry of Education will be given a priority since their responses are critical to the success of the action plan. The areas of review of the priority agencies are shown in the following table (Table3):

Table 3. Priority agencies for annual performance review

Agency	Area of review
MoHP (Central, regional health services)	Training, expansion of health services, central coordination roles, and monitoring the action plan in totality
Ministry of Education	Integration of NCD information and activities in schools (private and public)
Police, Trade, Industries, Transport, Information and Communication	Progress on enforcement for alcohol, tobacco, and road safety, food safety, advertisements and other regulations
Ministry of Agriculture and Development	Production and availability of fruits and vegetables
Community based organization	Lessons of community based projects in indoor air pollution control, alcohol and tobacco prevention and control
Academia	Share lessons on new approaches for NCDs

Building synergies with other programs

The action plan will develop effective linkages and synergies with the existing programs within and outside of the health sector. Priority programs for linkages include as shown in the following table (Table 4):

Table 4: Health sector and non-health sector synergies

Health sector program	Non-health sector programs
• Oral health program • Reproductive and child health programs • Mental health program • Nutrition program • Tobacco Control Plan 2013-2016 of the NHEICC, of the MoHP • Trauma centers	• Outdoor air pollution control program • Road Safety and enforcement program of traffic police • Enforcement programs for alcohol and tobacco of police and trade • Sustainable Environment Programs • Food and fruit production projects • Pilot initiatives of the academic institutions • Civil Society programs

National NCD action Plan Monitoring and Evaluation Frame work

The M & E framework will follow a set of indicators as in table 5. Monitoring will include monitoring of morbidity and mortality from NCDs (impacts), monitoring of risk factors (determinants of NCDs) and monitoring of the health care system response (interventions and capacity).

Ministry of health and Population will assume overall in-charge monitoring of the NCD action plan under the guidance of the national Steering Committee.

The implementing partners will submit a six monthly implementation reports to the NCD Unit of the MoHP using a standard reporting forms. The reporting forms will be developed by the NCD unit in consultation with the key partners. An annual progress report will be published; the report will be disseminated widely through media coverage. This report also will feed into the annual performance review to be conducted by an independent body.

The following are the key targets to be accomplished during the plan period and by 2020.

Table 4: National Monitoring framework, including targets and set of targets of NCDs

Target/Outcome	Indicator	Source of data	Frequency of collection
A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases	Indicator 1: Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases	Mortality data analysis	Baseline and end line
At least 10% relative reduction in the harmful use of alcohol,	Indicator 2: Age-standardized prevalence of heavy episodic drinking among adolescents and adults	Recommended source: Adolescent or school health surveys Alternative course: STEPs Survey	Baseline and end line in five years
10% relative reduction in prevalence of insufficient physical activity	Indicator 3: Prevalence of insufficiently physically active adolescents, defined as less than 60 minutes of moderate to vigorous intensity activity daily	STEPS Survey	Baseline and end line in five years

30% relative reduction in prevalence of current tobacco use in persons aged over 15 years	Indicator 4: Prevalence of current tobacco use among adolescents Indicator 5: Age-standardized prevalence of current tobacco use among persons aged 18+ years	STEPS survey	Baseline and end line in five years
30% relative reduction in mean population intake of salt/sodium	Indicator 6: Age-standardized mean population intake of salt(sodium chloride) per day in grams in persons aged 18+years	Pilot urinary salt assessment STEPS survey	One in five years
25% reduction in prevalence of raised blood pressure	Indicator 7: Age-standardized prevalence of raised blood pressure among persons aged 18+ years (defined as systolic blood pressure > 140 mmHg and/or diastolic blood pressure >90 mmHg) and mean systolic blood pressure	STEPS survey	Once in five years
Halt the rise in obesity and diabetes	Indicator 8: Age-standardized prevalence of raised blood glucose/diabetes among persons aged 18+ years (defined as fasting plasma glucose concentration > 7.0 mmol/l (126 mg/dl) or on medication for raised blood glucose)	STEPS survey	Once in five years
50% relative reduction in the proportion of households using solid fuels as the primary source of cooking	Indicator 9: Proportion of households in rural areas using solid fuels (firewood, animal dung, coal) as primary source of cooking	National household survey	Routinely and align with household survey
50% of eligible people receive drug therapy and counseling (including glycemic control) to prevent heart attacks and strokes	Indicator 10: Proportion of eligible persons (defined as aged 40 years and older with a 10-year cardiovascular risk >30%, including those with existing cardiovascular disease) receiving drug therapy and counseling (including glycaemic control) to prevent heart attacks and strokes	PEN intervention assessment	End of five years
80% availability of affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities	Indictor 11: Availability and affordability of quality, safe and efficacious essential noncommunicable disease medicines, including generics, and basic technologies in both public and private facilities	Logistic management supply study	End of five years
Cancer patients receiving palliative care with opiod analgesics increased to x%	Indicator 12: Access to palliative care assessed by morphine equivalent consumption of strong opioid analgesics (excluding methadone) per death from cancer	Hospital and health facility records	End line and baseline assessment
Decrease in dental caries of 5-6 year old school children by X % Decrease in Periodontal disease among 35-44 yrs old by X %	Indicator 13: Proportion of children aged 5-6 years screened with dental caries Indicator 14: Proportion of adults between 35- 44 years screened with periodontal disease	Dental survey	Once in five years
Treatment and service gap for mental disorders reduced by 35%	Indicators 15: Proportion of persons with a mental disorder who have accessed treatment and social services within the past year (%)	National mental health morbidity survey (Baseline and end line)	Baseline and end line surveys in five years
Adoption of policies limiting saturated fatty acid/transfat	Indicator 16: Adoption of national policies that limit saturated fatty acids and virtually eliminate partially hydrogenated vegetable oils in the food supply, as appropriate, within the national context and national program	Document records	One time
Increase in vegetable and fruit consumption	Indicator 17: Age-standardized prevalence of persons (aged 18+ years) consuming less than five total servings (400 grams) of fruit and vegetables per day	STEPS survey	Once in five years

Decrease in prevalence of raised cholesterol	Indicator 18: Age-standardized prevalence of raised total cholesterol among persons aged 18+ years (defined as total cholesterol >5.0 mmol/l or 190 mg/dl); and mean total cholesterol concentration	STEPS survey	Once in five years
Reduce treatment and service gap for mental disorders by 35%	Indicator 19: Proportion of persons with a mental disorder who have accessed treatment and social services within the past year	Baseline and periodic follow-up surveys of households (to calculate local prevalence of disorders and service uptake relating to them) and health and social care facilities (to calculate service provision for persons with mental disorder)	Periodic

Key assumptions for the multi-sectoral action plan

There are several factors that will determine the success of implementing the action plan. The key assumptions for the success of the NCD action plan include:

- The political commitment of the government to NCD issue remain unchanged
- Proposed legislation and regulations to support policies are endorsed
- Proposed functional NCD unit with timely sub units in particular is established at the MOHP
- The other stakeholders including the enforcement agencies are effectively participate in implementing the NCD action plan
- Proposed committees are diligently are able to meet and function
- The annual joint work planning and review exercises are conducted routinely
- Financial resources are increased for implementing the program
- WHO and other donors provide continued partnership, support and guidance at the country level

List of Key Documents Consulted

1. Regional Action Plan for the Prevention and Control of Noncommunicable Diseases (2013-2020), 31 July 2013
2. Follow-up to the Political Declaration of the High level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases (WHA66.10), 27 May 2013
3. Development of a regional strategic action plan with indicators and targets for prevention and control of non-communicable diseases in the South-East Asia Region, 25-27 February 2013
4. Global strategy to reduce the harmful use of alcohol, WHO 2010
5. Nepal Health Sector Programme-II (NHSP-II) 2010-2015
6. Annual Report, Department of Health Services 2068/69 (2011/2012), MOHP, Government of Nepal
7. National Tobacco Control Strategic Plan (2013-2016), MoHP, Government of Nepal,
8. Nepal Adolescent and Youth Survey, 2010/2011, MoHP, Government of Nepal, March 2012
9. Thematic group reports for Cardiovascular Diseases, Chronic Obstructive Lung Diseases, Cancer, Diabetes Mellitus, Oral Health, Mental Health, Road Traffic Injuries, Tobacco, Alcohol, Unhealthy Diet, Physical Exercise and Air pollution
10. Non Communicable Diseases Risk Factors: STEPS Survey Nepal 2013, Nepal Health Research Council 2014

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1. [i] Nepal Road Safety Action Plan (2013-2020), Ministry of Physical Planning and Transport Management, Government of Nepal, February 2013

2. [ii] Health Impacts of Kathmandu's Air Pollution , Clean Energy Nepal, Environment and Public Health Organization, September 2003

3. [iii] Alcohol thematic group report for NCD Action Plan preparation for Nepal, 2013

Multisectoral Action Plan on Prevention and Control of NCD In Nepal 2014-2020

Strategic action area 1: Advocacy, partnership and leadership

Strategic approach: To accelerate and scale-up national response to NCD epidemic by setting functional mechanism for multi-sectoral partnerships and effective coordination, effective leadership, sustained political commitment and resources for implementation of NCD action plan

1.1 Advocacy:

Action areas	Key milestones/actions	Target completion date	Concerned agency	Coordinating agency
Integrate NCDs into health planning processes and development plans with special attention to social determinants of health	• Include NCD action plan in the NHSP-III	2014	PPICD/MoHP	PPICD
	• Create a NCD Unit within the Curative Disease Division at the MoHP headed by a coordinator to oversee All Four NCDs Diseases (CVDs, COPDs, Cancer, Diabetes) and three associated NCDs (mental health, oral health, and road safety) along with their risk factors including indoor air pollution).	2014	MoHP	CD
Raise public and political awareness/understanding about NCDs through social marketing, mass media and responsible media reporting	• Conduct annual advocacy sessions to update the status of NCDs and to lobby greater support for prevention and control of NCDs with: -Parliamentarians and policy makers -Influential public and religious figures, and prominent citizens	Annual event	NCD Unit/CD	MoHP
	• Organize sessions to orient media organizations and journalists to champion for NCDs prevention and control particularly related to alcohol, tobacco, transfat, air pollution and road safety regulations	Annual event	MoHP/MSTE, MoHA/ML&J/MLTM/ MYS/MUD/MIC	MoHP
Provide adequate and sustained resources for NCDs by increasing domestic budgetary allocations, innovative financing mechanisms, and through other external donors	• Propose raise in budget for NCD prevention and control through taxes collected from alcohol and tobacco taxes	2014 end	PPICD/MoHP	PPICD/MoHP
	• Prepare project proposals for implementing alcohol, tobacco, indoor air pollution, mental health and oral health programs to potential donors	2014	CD/PPICD/MoHP	PPICD/MoHP
	• Prepare resource mobilization plans project proposals and submit proposals for CVDs, cancer and diabetes and COPDs to potential donors	2014	CD/PPICD/MoHP	PPICD/MoHP

	• Assist/encourage/support CBOs, NGOs and INGOs to develop proposals related to addressing NCD risk factors at the community level		All sectors	MoHP
	• Establish sustainable financing options by including NCDs into policies of universal coverage and other financing options	2014	MoHP	MoHP
	• Discuss with UN country teams to include greater support for Nepal NCD action plan and link the activities to UNDAF	Annually	NPC/MoHP	NPC

1.2 Partnerships:

Action areas	Key milestones/actions	Target completion date	Concerned agency	Coordinating agency
Establish multisectoral mechanisms to plan, guide, monitor and evaluate, and enactment of NCD multisectoral plans, policies and legislation	• Institute a National Steering Committee under the chair of Chief Secretary with full representation of other ministries, and civil society groups and Health Secretary as the member Secretary to guide the national NCD response	2014	MoHP	MoHP
	• Establish national NCD technical committee with Chief Curative division of the MOHP as the chair of the technical Committee to review the performance of stakeholders, prepare the joint implementation reports on an annual basis and appraise the National Steering Committee on the progress of NCD action plan	2014	CD/MoHP	MoHP
	• Establish regional and district NCD committees to provide multisectoral support and monitoring of NCD action plans at each level	2014	Regional Directors/DPHOs	MoHP
Strengthen capacity of the enforcement agencies (Police, Trade Inspectors and Road Safety Inspectors)	• Advocate alcohol regulatory policies among police and trade inspectors	Six monthly and annually	Respective agencies	Respective agencies/MoHP
	• Identify and train core teams responsible for direct field enforcement and	Continuous	Respective agencies	Respective agencies/MoHP
	• Prepare annual enforcement implementation plans	Annually	Respective agencies	Respective agencies/MoHP

	• Review record keeping for enforcement and adapt to include additional information requirements	2015 end	Police/ Trade	Police/Trade/MoHP
	• Conduct six monthly review meeting among key enforcement agencies across the country to share lessons related to NCD implementation	Six monthly	Police/Trade	Police/Trade/MoHP
Integrate NCD interventions into sectoral planning processes to account for coordinated implementation	• Conduct annual work planning exercises to incorporate NCD activities endorsed into the joint annual work plans of the key stakeholders	2015 and annually	Respective sectors	CD
	• Seek endorsement of the joint annual work plan from the national Steering Committee for NCDs and incorporate in their agency plans	2015 and annually	Respective agencies	CD
	• Organize annual workshops, seminars among the implementers, academia and other NGOs to share the lessons and innovations related to NCD implementation	Annually from 2015	MoHP/MSTE/MoHA/ML&J/ MLTM/MYS/MUD/MIC	CD/MoHP
	• Support relevant stakeholders to attend international conferences, seminars, and research forums to share Nepal experiences on NCD implementation	Ongoing	All Ministries	WHO/MoHP
Raise public and political awareness and understanding about NCDs including mental health, oral health and indoor air pollution through social marketing, mass-media and responsible media reporting	• Conduct national media campaigns on NCDs to provide consistent, coherent and clear messages on NCD risk factors and services	2015 onwards	MoHA/MoHP/MLTM/ML&J	MoHP
	• Conduct media campaigns for regulations for tobacco, alcohol, food packaging to improve the compliance to regulations among licensees	2015 onwards	MoHP/MoHA/MI	MoHA
	• Identify and partner with community based organizations, NGOs and INGOs to implement NCD action plan	2015 onwards	MoHP/MoHA/MI	MoHP
Assess the health impact of policies in non-health sectors e.g., agriculture, education, trade, environment, energy, labor, sports, transport, urban planning	• Organize common planning forums in transport, urban planning, environment, education, trade, agriculture and identify health impact assessment areas	2015	MoAD/MLTM/MSTE/ MoHP/MoE/MUD	MoE/MoHP
Strengthen the partnership within the MOHP to develop synergies with the existing programs and provide better coordination	• Conduct joint review meetings on a regular basis with other units/divisions of the MOHP divisions such as to maternal and child health, oral health, school health, primary health care revitalization program, monitoring	2014 end	MoHP	MoHP

	and evaluation division			
Implement action plan through Local Government	• Advocacy through nominating goodwill ambassador • Conduct promotion activity on NCD with local government budget.	continuous	MoFALD	MoHP

1.3 Leadership

Action area	Key Milestones/actions	Target completion date	Implementing agency	Coordinating agency
Set up and/or strengthen leadership in the MOHP to provide technical support and coordination and accountability to NCD prevention and control	• Strengthen curative division of the MOHP by creating a NCD Program Unit with full staff allocation	2014	MoHP	CD/MoHP
	• Institute a Functional Mental Health Unit	2014/2015	MoHP	
	• Increase staff capacity of the M and E Division to ensure timely evaluation of the national action plan	2014	MoHP	MoHP
Implement the national multisectoral policies and action plans through collaborative partnerships with multiple stakeholders, including government agencies, NGOs, civil society, academia, and the private sector	• Conduct annual performance reporting workshops among stakeholders at the central, regional, district and sub-district levels	2016 onwards	MoHP	MoHP
	• Ensure diligent conduct of annual work planning meetings and performance reporting workshops among stakeholders at the central, regional, district and sub-district levels	2014 end onwards	MoAD/MLTM/MSTE/MoHP/MoE/MUD	MoHP/NCD Unit
	• Develop common reporting format for NCD action plan among stakeholders	2015 onwards	All stakeholders	MoHP/NCD Unit
	• Conduct annual appraisal meetings of the National Steering Committee	Annually	NCD Unit	MoHP/NCD Unit

Strategic action area 2: Health Promotion and Risk Minimization

2.1 Reduce tobacco use:

Strategic approach: Strengthening enforcement and compliance to Tobacco product (control and regulatory) Act, 2011 and improving public awareness on the hazards of tobacco use

Action area	Key Milestones	Target completion date	Implementing agency	Coordinating agency
Strengthen leadership and multisectoral participation to implement tobacco regulations and public education	• Form inter-ministerial coordination committee with participation of civil societies to oversee implement tobacco control regulations	End of 2014 and continuous	MoHP/MoHA/MoIC/MoCS	MoHP
Review and amendment of tobacco legislation in line with WHO FCTC Article 16	• Propose amendments tobacco control act, 2011 including new areas such as increasing violation penalty, minimum age for sale of tobacco products and other relevant amendments	Continuous	MoCS, MoHA, Civil Societies	MoHP
Raise taxes and inflation-adjusted prices on tobacco products to reduce affordability	• Assess tax structure and increase excise and tax on tobacco products (smoke and smokeless)	End 2014 and continuous	MoHP/MoF/MoCS	MoHP
	• Identify few relevant NGOs and form tobacco control alliance to pressurize tax raise and reduction of exposure to second hand smoke		MoHP/patient groups/civil society	MoHP
Enforce smoke free environments as per the section 3 of the tobacco product (control and regulation) Act, 2011 to create smoke free zones to reduce exposure to second hand smoke	• Notify smoke all free locations: the bodies, institutions and offices of the State and of the Government, educational institutions, libraries, training and health related institutions, airport, airlines and public transportations, child welfare homes, child care centers, hermitage for old (Bridasaram), orphanage, children park and club, public toilets, work place of industries and factories; cinema hall, cultural centers and theatres, hotel, motel, resort, restaurant, bar, dining hall, canteen, lodge, hostel and guest houses, stadium, covered halls, gymnasium, swimming pool houses, departmental store and mini market, pilgrimage and religious places, public bus stand and ticketing centers on the smoke free regulations	Continuous	MoHA	MoHP
	• Ensure effective compliance monitoring by police through supporting inspection visits		MoHA/CDO	MoHP/DPHO
Warn people about the dangers of tobacco, including through hard-	• Production, dissemination and distribution of BCC messages and materials on tobacco control through electronic, print and	End of 2015	MoE/MoIC/MoCS/	MoHP

hitting, mass-media campaigns and large, clear, visible and legible text and pictorial health warnings	socio-cultural or folk communication media		MoHA/Civil Societies	
	• Inspection of compliance to pictorial labeling practices by tobacco industry	Continuous	MoHA	MoHA
Implement comprehensive Tobacco Advertising, Promotion and Sponsorship (TAPS) ban	• Develop monitoring guidelines and tools on banning tobacco advertisement, promotion and sponsorship	Continuous	MoIC/MoYS/MoFALD/Civil Societies	MoHP
	• Educate local bodies, administration, civil societies and NGOs and media on TAPS ban, other tobacco regulations and promote being social informants to the enforcement agencies for direct or indirect TAPS ban	2020	MoI	MoI
	• Monitor tobacco advertising, promotion and sponsorship ban	Continuous	MoFA	MoFA
	• Organize training and orientation for national, regional officials and civil society responsible on enforcement initiatives	Continuous	MoFA/MoHP	MoFA/MoHA
Ensure label, trademarks, wrappers and packaging practices	• Institute approval and inspection committee	2016	MoF/Department of Revenue	MoHP
Protect tobacco control policies from commercial and other vested interests of the tobacco industry in accordance with national law	• Raise awareness and education campaign about TI interference	Continuous	MoIC/MoCS/MOHA, MoFALD/Civil Societies	MoHP
	• Conduct routine inspection on tobacco Industry practices on TAPS	Intermittent	MoFA/MoI	MoFA/MoI
Offer help to people who want to stop using tobacco	• Develop national tobacco cessation guidelines/manuals on promoting cessation	Continuous	MoE/Civil Societies	MoHP
	• Establishment of tobacco cessation centers and promote community cessation clinics	2020	MoHP	MoHP
	• Establish national toll free quit-lines and telephone help-lines	2020	MoHP	MoHP
	• Integrate tobacco cessation program into primary care health centers by training primary care health workers	2020	MoHP	MoHP
Strengthen tobacco surveillance system to monitor tobacco use and compliance to regulation	• Conduct compliance studies using decoy purchase of tobacco, survey of smoke free zones, market assessment of TAPS	Continuous	Trade and civil society	MoHP
Regulate the contents and emissions of tobacco products, tobacco product disclosures and the methods by which they are tested and measured	• Establish the standard and testing facilities	End of July 2015	NPRC/MoI/MoHA	MoHP
Take measures to eliminate the illicit trade of tobacco products, including smuggling, illicit manufacturing and counterfeiting	• Adopt illicit trade protocol in the Nepalese context as passed by CoP of FCTC and develop tracking and tracing system	End of July 2015	MoF/MoCS/MoHA/Civil Societies	MoHP

Consider taking action to deal with criminal and civil liability, including compensation where appropriate and to offer one another related legal assistance (in line with WHO FCTC Article 19)	• Review tobacco control legislation • Advocacy to concerned ministries	Mid 2015	MoLJCAPA/MoF/MoHA	MoHP
Increase resource allocation through Health Tax Fund	• Establish a Health Tax Fund for controlling smoking and tobacco product consumption and to the prevention and control of diseases caused by consumption of such tobacco products	2015	MoF/PPC	MoF

2.2 Reduce harmful use of alcohol:

***Strategic approach**:* Reducing commercial and public availability of alcohol and implementing social mobilizing programs to reduce harmful use of alcohol

Action areas	Key milestones	Target completion date	Implementing agency	Coordinating agency
Strengthen awareness on alcohol-attributable burden; leadership, political commitment and coordination to reduce harmful use of alcohol	• Establish a National Alcohol Coordinating and Control Committee with representatives of relevant organizations and institutions, chaired by the Secretary, MOHP and organize routine committee meetings	Continuous	MoHA/Civil Societies	MoHP, MoCS
	• Organize advocacy meeting with high level policy makers and parliamentarians prior to parliamentarian discussion on Alcohol Bill and seek endorsement of the National Alcohol Control Policy and Alcohol Control Act	2014	MoHP/MoFALD/MoI	MoHP
	• Mobilize relevant ministries, departments, academia and NGOs including ministry of finance, ministry of Information, ministry of local development, ministry of home, ministry of supply to advocate on enforcement of alcohol policies	2015	MoHP/MoFALD/MoI	MoHP
	• Conduct regular coordination meetings with concerned ministries, departments, NGOs, WHO, donors and stakeholders implementing alcohol control and harm reduction programs	Continuous	MoHP/MoFALD	MoHP/MoFALD

	• Regulate additional policies restricting alcohol services preferably below 18 year, legal provision on retail sales of alcohol in specific places or during special events (such as sporting events, concerts, public gatherings, etc)	2016	MoHP/MoWC&SW	MoWC&SW
Ban alcohol advertising, promotions and sponsorship	• Enforce prohibitions on alcohol beverages advertisement through media channels including e-based media	End of July 2015	MoIC/ MoHA/MoFALD/Civil Societies	MoHP
	• Establish compliance monitoring in advertisement, marketing of alcoholic beverages to prevent unfair marketing behavior and effect penalties for defaulters	2015	MoFA/MoHP/MoI/MoIC	MoIC
Use pricing policies, such as excise taxes on alcoholic beverages to make alcohol less affordable	• Establish a taxation procedure for various alcohol beverage types and increase alcohol tax	Continuous	MoHP	MoF
	• Dedicate a proportion excise tax of alcohol for NCD control and health promotion activities	2015	MoHP/MoF	MoF
	• Ban use of direct and indirect alcohol price promotions and discount sales	2015	MoIC	MoIC
Promote responsible serving behaviors	• Mandatory display of restriction policy for underage service (below 18 years) in alcohol outlets (bars, hotels and other licensed sellers	2015	MoIC/MoFA/MoI	MoFA
	• Pilot projects for involvement of licensed owners and managers to promote responsible alcohol serving practices by training outlet servers and managers	2015	MoHP, Civil societies	MoHP
	• Prepare alcohol service policies and introduce brief serving education programs at the point of license award	2015	MoHP/MoHA	MoHP/MoHA
Implement effective drink-driving policies and countermeasures	• Improve documentation on drink-driving and road crashes and disseminate to general public	Ongoing	MoHA	MoHA
	• Introduce curriculum on hazards related to drink driving in driver training institutes and test the subject in the examination	2017	MoLTM	MoLTM
	• Expansion of breath testing programs for alcohol while driving	On going	MoHA	MoHA

	• Develop and conduct educational campaigns targeting young people about hazards of alcohol use while driving	2020	MoLTM/MoHP	MoLTM
Education of enforcement agencies	• Advocate alcohol regulatory policies among police and trade inspectors • Identify and train main teams responsible for direct field enforcement and adopt annual enforcement implementation plans • Review the record keeping for enforcement and adapt to include additional information requirements • Conduct six monthly review meetings of enforcement teams across the country to share their lessons	2020	MoHA	MoHP
Increase access to consumer information about harmful effects of alcohol	• Develop media materials on harms related to alcohol and conduct wide dissemination	Continuous	MoIC/MoI/ Civil Societies	MoHP
	• Engage active participation of civil sector to implement alcohol harm reduction programs	2020	MoIC, , Civil Societies	MoHP
	• Orientation of media and journalists at the center and regional level on alcohol control regulations	2020	MoHP	MoHP
	• Educate on legal provisions on mandatory labeling of alcohol containers with clear health warnings about alcohol use	2017	MoIC/MoI	MoI
Reduce public health impacts of harms produced by consumption of illicit and informally brewed alcohol	• Develop innovate community mobilization programs to production and harms caused by illicit and informally produced alcohol through: involvement of religious leaders, community based organizations and supportive legislation	2020	Civil societies/MoHP	MoHP
Strengthen health services to provide prevention and treatment to individuals and families at risk of, or affected by alcohol-use disorders and associated conditions	• Develop and introduce screening and brief intervention programmes for persons with hazardous and harmful drinking patterns at all levels of health facilities through Package of Essential NCD intervention (PEN)	Continuous	MoHP/MoGA/MoFALD/MoHA/private health institutions/Civil Societies	MoHP
	• Train health care providers for early identification of persons with hazardous and	2016	MoHP/DHPOs	MoHP

	harmful drinking patterns and provide timely treatment and referral into the appropriate services through PEN intervention			
	• Establish and maintain reliable and sustainable system of registration and monitoring of alcohol attributable morbidity and mortality	2015	MoHP	MoHP
	• Organize annual expert panel discussions and review to design effective model to alcohol harm reduction programmes	2015	MoHP/Academia	Academia
Empower communities to use their local knowledge and expertise in adopting effective approaches to prevent and reduce harmful use of alcohol	• Discourage alcohol use in schools and colleges and academic settings	Continuous	MoE	MoE
	• Engage NGOs to prevent sale of alcohol to, and its consumption by under-age drinkers, and develop and support alcohol-free environments	2020	Civil societies	MoHP(DPHO), DDC/VDC chairman
	• Strengthen prevention of alcohol use in workplace and promotion of alcohol-free public workplaces including educational institutions	2020	MoHA (Police)	MoHA
	• Strengthen enforcement visits by police by regularly checking the streets, night clubs, disco bars, and other public places areas where young people often go out and gather	2020	MoHA (Police)	MoHA
	• Introduce toll free number for citizens to report cases of disturbing public order, aggressive, uncontrolled and alcoholic behavior in their surrounding	2016	MoHP	MoHP
	• Orient/train local clubs, health workers, mothers group, FCHVs, local influential persons and community people on harmful effects of alcohol use and related policies	2017	MoHP, Civil societies	MoHP

2.3 Promote healthy diet high in fruits and vegetables and low in saturated fats/trans fats, free sugar and salt:

***Strategic approach**:* Encouraging increased consumption of fruits and vegetables, reducing consumption of salt, saturated and trans fat combined with increased health beneficial physical activity through supportive policies

Action areas	Key milestones	Target completion date	Implementing agency	Coordinating agency
Strengthen supportive policies and legislations to promote healthy diet	• Adopt breast feeding promotion and protection regulation	2015	NCD Unit	MoHP
	• Develop national food based dietary guidelines	2015	NCD Unit	MoHP
	• Regulate salt content reduction in packaged food and provide logistic support to DFTQC to monitor compliance	2015	DFTQC/MoAD	CHD/MoHP, WHO/UNICEF, Nutrition EDPs, FNCCI
	• Enactment of New Food Safety Act 2012 and		Mo AD	MoHP
	• Legislate ban of food products containing high transfat/saturated fat including sale around school premises and use for catering serving services	2017	MoI/MoHP	MoI/MoHP
	• Establish regulations and fiscal policies including taxes and subsidies to promote consumption of fruits and vegetables and discourage consumption of unhealthy food options high in trans fat, and containing excessive simple sugar and excessive salt as well as unhealthy preservatives and additives	2017	NPC/MoHP/MoF	MoHP, MoF, MoAD, Ministry of Commerce and Supplies, FNCCI
Strengthen mass media and social marketing approaches to raise awareness on benefits of physical activity throughout the life cycle	• Develop a structured media campaign to deliver consistent, coherent and clear messages on national recommendations of diet and reduction of salt and food with high unsaturated fatty acids • Use popular advocates such as yoga guru to endorse healthy lifestyle promotion, diet, avoidance of alcohol and tobacco) • Form alliance with schools and college associations to promote healthy diet and increase physical activity • Awareness campaigns in communities involving	2020	NHEICC CHD and Curative Division MoHP MoAD	MoIC UN Agencies EDPs Ministry of education Civil Society Associations FNCCI

	consumer groups, farmers, Citizen awareness Centers, Ward Citizens forums			
	• Special promotion of foods high in omega 3 fatty acids like walnut, fish oil, olive oil, soybean/tofu, salmon and tuna fish etc	2020	MoAD	
Support implementation of WHO set of recommendations on marketing of foods and non- alcoholic beverages to children, including mechanisms for monitoring	• Ethical marketing of Breast Milk Substitutes (BMS) and complementary foods in line with IYCF strategy • Implementation of the approved Breast Milk Substitute Act in line with IYCF strategy • Activate Breast feeding promotion and Protection Committee • Appoint inspectors to monitor BMS products in-line with IYCF strategy • Discourage use of energy-drinks among children/youths unless prescribed	2017	WHO MoHP	MoHP DFTQC/MoAD UNICEF DFTQC, MoAD, Consumer Associations, Hospitals and Medical Professionals
	• Improve nutrition for adolescent girls, pregnant and breastfeeding and young children in line with Maternal Nutrition and IYCF strategy for improved dietary intake (macro, micro nutrients, essential fatty acids) • Counsel for proper nutrition among adolescent girls, pregnant and breastfeeding women at health centers • Promote and support early and exclusive breastfeeding for the first six months of life, continued breastfeeding until two years and timely introduction of complementary feeding, frequency and diversity of food among young children through at health facilities	2017	CHD/MoHP FHD, MoHP NHEICC/MoHP	UNICEF WHO MoAD Nutrition EDPS
Strengthen food safety and labeling regulations	• Facilitate discussions through workshops and seminars to Accelerate implementation of Global Strategy on diet and Physical Activity for Health	2020	CHD/MoHP	CD/MoHP, WHO, PPICD/MoHP, UNICEF, MOAD
	• Promote nutrition labeling, according but not limited to, international standards, in particular the Codex Alimentarius, for all pre-packaged foods including those for which nutrition or health claims are made. • Special Focus on BMS, complementary foods, fortified foods of major vehicles – flour, salt, edible cooking oils • Policy Awareness and enforcement of expected Food	2020	DTFQC/MOAD, WHO	CHD/MOHP Professional/Academia, UNICEF, Nutrition EDPs, FNCCI, Consumer Groups

	Safety Act 2012			
	• Strengthen capacity of central DTFQC and Regional food labs for testing and monitoring the content of in trans fat, sugar and processed foods with excessive salt	2020	DFTQC MoAD	WHO/UNICEF, Nutrition EDPs, Salt Trading Corporation
Reducing food with high transfat content and other junk food	• Promotion events/campaigns on reduction of the use of trans fat , margarine etc and more consumption of unsaturated fat with proper ratio of omega 3 and omega 6	2017	NHEICC/MoHP, CD/MoHP	DFTQC/MoAD/CHD/MOHP, MoCS
	• Replace trans fat with unsaturated fat	2020	MoI	MoHP
	• Reduce intake of saturated fats and simple sugars among the high risk groups (people with CHD, elderly people, other risk groups)	2020	CD/NHIECC	Ministry of Information and Communication, hospitals/Societies
Address issue of food coloring practices in the country	• Conduct food safety assessment of food coloring practices and introduce food safety education and effective interventions	2020	DFTQC/MoAD	MoHP/MoAD

2.4 Promote physical activity:

***Strategic approach**:* Improving built environment and promoting health beneficial physical activity through supportive policies in key settings

Action areas	**Key milestones**	**Target completion date**	**Implementing agency**	**Coordinating agency**
Strengthen supportive policies and legislations to promote physical activity	• Review and legislate requirement of open space such as in each ward	2015	MoUD	MoHP
	• Review policies and implementation of urban structure and designs for promoting friendly built environment to promote physical activity and walk ability for all age groups	2015	MoUD	MoHP

Advocate for implementation improved urban planning	• Conduct annual progress workshops on urban design and redevelopment of old infrastructure among urban planners in presence of other stakeholders (MOHP, MOE, Civil Societies)	Annually	MoUD	MoUD
	• Hold advocacy meetings by civil society groups to implement standard urban plans requiring new urban structures, housing developments to include safe and adequate spaces for walking, cycling and for recreation of all age groups and restructuring of the existing urban structures	Annually	Civil Societies	MoUD
Improve access to right information on physical activity promotion and healthy lifestyles (national guidelines)	• Introduce culturally sensitive national physical activity guidelines for different age groups and persons with various physical ability and conditions incorporating modern as well as age-old Ayurvedic traditions and stress management techniques	2015	NHIECC/Ayurveda Dept	MoHP
	• Advocate the national physical activity guidelines		MoHP	MoHP
	• Promote indoor facilities such as gym and yoga	2020	MoUD	MoUD
	• Advocate to town planners for designing increased public space supportive of physical activity	2016	MoHP	MoHP
Strengthen mass media and social marketing approaches to raise awareness on benefits of physical activity throughout the life cycle	• Develop a structured media campaign to deliver consistent, coherent and clear messages on national recommendations of physical activity	2020	NHEICC	
	• Use popular advocates such as yoga guru to endorse healthy lifestyle promotion, diet, avoidance of alcohol and tobacco)	2016	NHEICC	NHIECC/MoHP
	• Form alliance with schools and college associations to promote healthy diet and increase physical activity	2016	CHD/MoE	CHD/MoE

2.5 Promote healthy behaviors and reduce NCDs in key settings:

Action areas	Key milestones/Actions	Target completion date	Implementing agency	Coordinating agency
Enable and facilitate intersectoral action in schools and work places through intersectoral working groups,	• Establish inter-sectoral working groups, task teams or focal persons in charge of developing and coordinating health promoting activities such as maintaining postural activities (Asana) and mental and spiritual health (Pranayama)	2020	Dept. of Ayurveda/MoE	MoHP

teams and focal persons	• Provide training courses on sports and physical activity (Sports Council) incorporating Ayurvedic concepts	2020	MoYS	MoYS
	• Conduct curricular review and incorporate information on priority NCDs from grades 3 to 12 in the schools	2017	MOE/NCD Unit	MoHP
Incorporate Ayurvedic and ancient alternate medicine practices to build healthy behavior lifestyles	• Promote various effective techniques such as pancha karma, asana, pranayama yoga at homes, work places , for all age groups	2020	Ayurveda dept/Alternative medicine Section	MoHP
	• Mobilize experts and communities to form local groups for regular activities	2020	Ayurveda dept/Alternative medicine Section	MoHP
	• Utilize effective techniques to control other risk factors like tobacco and alcohol use, nutrition and mental health	2020	Ayurveda dept/Alternative medicine Section	MoHP
Ban foods high in saturated fat, sugar and salt from school premises and work place catering facilities	• Take strong measures regarding the catering services of the school to mandate natural food, low fat, low salt, more fruits	2020	MOE	MoE
	• Organize public and parent education program on ban high saturated fat, and promote low salt diet among work places and school premises	2020	MoE/MoHP	MoE/MoHP
Promote healthy behaviors in work place	• Develop and implement national salt strategies in line with WHO recommendations (reduction to <2 g/day sodium (5 g/day salt) in adults) ensuring sufficient intake of adequately iodized salt	2020	MOHP CHD/MoHP DFTQC/MOAD	MoHP MoHP
	• Public health awareness programs aiming to reduce sodium intake and simultaneously increase potassium intake through foods like banana, and other functional foods	2020	NHIECC	MoHP
Promote healthy lifestyles in schools	• Mandate implementation of physical activity guidelines in public all schools to achieve required level of physical activity among students, teachers and staff	2016	MoE,/Parent Association	MoHP/NHIECC/Ayurveda Dept.

	• Deploy coaches in each school for physical education class trained by National sports council, and include Ayurvedic approaches as well	2020	MoYS/MoE	MoE
	• Support implementation of the plans in line with MSNP and Nutrition and Food Security Action Plan to promote affordability, availability and acceptability of healthier food products	2020	MoAD, NPC	MoHP, MoCS, FNCCI, Health, Nutrition, /NGOs, MoIC. MoAD
Collaboration with other sectors at the community	• Work in collaboration with various stakeholders such as food producers, processors, retailers, and consumers to promote availability and consumption of fruits and vegetables	2020	MOAD/FNCCI	MoHP, MoIC
	• Support Drying and Preservations of fruits and Vegetables	2020	MOAD/FNCCI	MoHP, MoIC
	• Strengthen market chain from production sites up to the consumers	2020	MOAD/FNCCI	MoHP, MoIC
	• Support and promote farmer groups producing organic vegetables and fruits	2020	MOAD/FNCCI	MoHP, MoIC
	• Campaign to support 25% of community forests to produce ecologically appropriate fruits among community forestry organizations in partnership with the Ministry of Forestry and Ministry of Agriculture	2017	MoAD/Dept of Horticulture	MoForestry/NPC/INGOs/DDCs/VDCs
	• Orient and collaborate with community forest user groups on production of fruits and vegetables	2020	MoAD/Dept of Horticulture	MoForestry/NPC/INGOs/DDCs/VDCs
	• Provide seed, saplings, fertilizers and other agriculture inputs for fruits and walnuts farms as a key Non-Timber Forest Products	2020	MoAD/Dept of Horticulture	MoForestry/NPC/INGOs/DDCs/VDCs

2.6 Reduce indoor air pollution due to use of biomass fuels and using alternative sources of heating, cooking and lighting:

***Strategic approach*:** Reaching communities and areas with poor indoor air quality as a result of use of biomass fuels for cooking and heating providing support with alternative means of energy to reduce adverse health impacts

Action areas	Key milestones	Target completion date	Implementing agency	Coordinating agency
Promote alternative sources of energy for cooking and heating at homes	• Strengthen advocacy in support of transition to cleaner technologies and fuels (LPG, biogas ,solar cookers, electricity ,other low fumes fuels like methanol ,ethanol)	ongoing 2020	MoSTE AEPC(alternative energy promotion center)	Ministries-M of Energy, Department of electricity development, Local development
	• Support schemes with subsidies and incentives for homes using electricity, and other alternative sources in rural communities	2020	MoST &E,NPC, Sustainable Environment for All	MoST &E
	• Increase government grants for NGOs involved with alternatives energy sources such as biogas project			
	• Develop and maintain national database on key variables to support decision making for transportation to clean sustainable household energy	2015	Local Development Ministry,(DDC),Mo Physical infrastructure and transport	MoST&E
	• Host workshops and seminars on sharing lessons of successful projects through workshop and seminars			
Promote change in structural designs of housing for better home ventilation	• Develop and implement programmes aimed at encouraging the use of improved cook stoves ,good cooking practices ,reducing exposure to fumes and improving ventilation in household	2015	Local Development ministry,(DDC),Mo Physical infrastructure and transport	MoST&E,
	• Conduct assessment of in communities with poor ventilation and recommend culturally and aesthetically appropriate design changes	2018	MoHP/MoUD	MoHP
	• Orient local construction agents and carpenters on the new design home construction	2020	MoUD/Civil Societies/LD	MoUD
Develop linkages with the outdoor air pollution control programs	• Network with the government and NGO initiatives to control pollution in key urban settings in the country and share lessons through public forums , workshops and seminar	2020	MoST & E/MoHP/ Civil societies	MoST &E

	• Participate in outdoor air pollution control policy development processes	2020	MoST & E/MoHP/ Civil societies	MoST &E
Behavior change education	• Create awareness and develop appropriate strategies to reduce exposure to second hand tobacco smoke in households.		MoHP	MoFA/LD/MoUD/Media
	• Seek endorsement of local leaders on demonstration projects of use of biogas	2020	MoST &E/LD	MoST &E
	• Support lesson learning visits by other communities and project sites	2020	MoST &E/LD	MoST &E

Strategic action area 3: Health system strengthening for early detection and management of NCDs (CVDs, COPDs, Diabetes and Cancers) and their risks and including oral health, mental health and linking to promotion of road safety:

Strategic approach: *S*trengthening health system competence, particularly at the primary health care level to address essential NCDs: CVDs, COPDs, diabetes and cancers, and empowering communities and individuals for self-care

3.1 Access to health services

Action areas	**Key milestones/Actions**	**Target completion date**	**Implementing agency**	**Coordinating agency**
Define price regulatory mechanism for NCD drugs and basic diagnostic equipments and laboratory tests to increase affordability by the poor section of the society	• Regulate the price for essential NCD drugs and basic tests at the production rate through pricing regulatory mechanism of the government	2014 end	DDA/NPHL	MoHP
Include essential medicines and technologies specially for NCDs in national essential medicine s and medical technology list	• Revise list of essential drugs for management of CVDs, COPDs, diabetes, cancers to be provided free of cost at different levels of health care system	2014 end	LMD/PHCRD	CD/NCD Unit
	• Appoint a team of experts with appropriate incentives to develop National Clinical Guidelines for Care of NCDs focusing on middle and tertiary level care	2015	CD/NCD Unit	CD
Develop efficient procurement supply mechanism of the basic drugs and diagnostic equipments and tests	• Procure supplies for urine testing for glucose and glucometer for testing blood sugar at all health posts	2016	LMD	MoHP
	• Procure and distribute essential drugs for NCDs in all health posts	2016	LMD	MoHP

Formulation of standards and guidelines related to management of NCDs and curricular approaches	• Adapt package of WHO Package of essential non-communicable (PEN) disease interventions to screen, diagnose, treat and refer CVDs, COPD, cancer and diabetes at VDC, PHC and hospital levels	2015	CD	MoHP
Capacity building of health workforce and improving competence of health workforce for early identification and management of common NCDs and up-gradation of facilities to respond to tertiary NCD care	• Create zonal coronary care units (CCUs) with complete teams with size of 5-10 bedded in mountainous region, 10-15 bedded in the southern regions with high population	2020	PPICD/MoHP	MoHP
Strengthen referral system for management of NCDs	• Increase production of advanced manpower in cardiology and cardiac surgery to meet the national demand by strengthening and developing current institutes.	2020	PPICD/CD/MD	MoHP
	• Develop referral guidelines to reinforce three tier referral systems for NCDs: Primary care, Middle care and tertiary care level. Middle care will be of multispecialty centers (district , regional or zonal hospitals) and tertiary care will consist of super specialist centers	2015	PHCRD/DoHS	MoHP
Integrate and scale up cost effective NCD interventions into basic primary health care package to advance universal coverage	• Introduce a two year pilot PEN program in selected health services at VDC, PHC and district hospital levels and scale up to cover all VDCs and PHCs	2020	CD/PPIECD	MoHP
	• Expand screening program for cervical cancer, breast cancer, and oral cancer hepatitis B specific population groups	2020	MOHP, BPKMCH	WHO
	• Integrate and expand screening program for gestational diabetes fasting and PP blood sugar at 24 weeks and 28 weeks of pregnancy in the reproductive health care service standards	2015	CD/FHD	MoHP
Improve awareness and health literacy including high risk communities for NCDs	• Develop and implement well structured media campaigns strategy outlining dose, medium and timing of NCD publicity messages to raise awareness on diabetes, CVDs, COPDs, and cancers, mental health, oral health, road safety and NCD risk factors	2020	NHEICC	MoHP
Strengthen guidelines to reduce cancer risk exposure at work place including use of pesticides in farms	• Develop regulatory standards and guidelines on use and work place prevention guidelines while handling known carcinogens in work places and advocate enforcement of the national protection guidelines	Dec 2014	MoST &E, MoHP	MoHP
	• Formulate regulation on disposal of wastes and	2015 and	MoHP	MoHP

	chemotherapeutic agents in radio-diagnosis clinic and centers. Use supportive nuclear technology for protection, diagnosis and treatment on human health.	Continuous	Municipality, Concerned Hospital	
	• Assess pesticide use in communities/areas reported with higher prevalence of cancers and address locally and utilize the lessons learnt for rest of the country	2017	MoAD/NHRC	MoHP/NCD Unit
	• Organize education programs on the hazards of use of pesticides among farming communities in the country or where pesticides are most prevalent	2020	MoAD/ Civil societies	MoAD

3.2 Health workforce

Action areas	Key milestones/Actions	Target completion date	Implementing agency	Coordinating agency
Identify competencies required to address the issues of cancer and invest in improving the knowledge and skills to detect cancer hazards	• Identify potential forms and sites of use of asbestos and stop its use and also educate the general public on the hazards of asbestos	Continuous from 2015 onwards	NHIECC/Environmental health and sanitation	MoHP
	• Identify occupational health focal points and provide training on the screening guidelines and reporting of occupational cancers	Continuous from 2015 onwards	NHIECC/Environmental health and sanitation	MoHP
Integrate NCDs in medical academic trainings	• Integrate NCD curriculum in medical, dental, paramedics training programs in pre-service program in consultation with the academic institutions	2020	MoHP	MoHP
	• Develop and conduct in-service special training programs on NCDs to be delivered at the training institutes for various groups of health professionals including DPHOs	2020	MoHP	MoHP
Develop career tracks for health workers by providing special trainings on NCDs in various professional disciplines and career advancement for non-professional staff	• Review role of FCHVs and expand to other responsibilities including NCD education and identification of mental illnesses in communities	2015	MH/Mental health Unit	MoHP/DPHOs
	• Encourage cadre of public health professional trainings focusing on NCDs, mental health, injury prevention, oral health and road safety	2020	MoHP	MoHP
	• Review career track and design progressive track for district medical officers, clinical officers, and other category of primary care health workers	2017	MoHP	MoHP/DHPOs/CMOs

	• Increase post graduate trainings for doctors on NCDs	2020	MoHP/ Academic institutions	MoHP
Improve health counseling practices and services for NCDs by linking with other diseases	• Reinforce brief interventions and counseling for NCDs through PEN package at the PHC level within the existing system	2018	MoHP/NCD Unit/	NCD Unit /Mental Health unit
	• Create lifestyle health counselors and counseling units in middle (district hospitals, regional and zonal hospitals) and super-specialist center s	2018	MoHP/NCD Unit/ Institution	NCD Unit /Mental Health unit
	• Develop basic lifestyle counseling curriculum and provide training on lifestyle counseling	2018	MoHP/NCD Unit/ Institution	NCD Unit /Mental Health unit
Develop patient education/self care guidelines for prevention and control of NCDs in consultation with wide range of stakeholders	• Adapt/develop screening protocols for breast cancer and hepatitis B infection	2018	NCD Unit BPKMCH	MoHP
Provide adequate mechanism (compensation) and incentives for health workers paying due attention to attracting and retaining them in underserviced area by providing better pay, training advantages and due consideration to education level	• Define incentive level and pay package based on the qualification and specialty for workers at the primary care level	2018	PPICD/MD	MoHP

3.3 Community-based approaches

Action areas	**Key milestones/Actions**	**Target completion date**	**Implementing agency**	**Coordinating agency**
Use participatory community based approaches for designing and implementation of NCD activities	• Train school teachers, nurses and FHCVs as educators and advocates for NCDs	2020	NHTC, Respective zonal, regional and district hosp.. MoE	MoHP
	• Mobilize, women's group FCHVs, Village Health workers, Celebrities and influential community people to participate in NCD projects and plans	2020	Civil Society/NGOs/CBOs	MoHP/Civil Society groups
Create awareness to empower people to seek care and detection for	• Support peer groups of people living with NCDs as an advocate groups and story tellers of how to live with the disease	2020	Civil society	MoHP

better management of their health condition	• Link programs to AAA for alcoholics and support these groups	2020	MoHP/Civil Societies	MoHP
Evaluate community based pilots and advocate the successful projects for replication	• Identify successful projects to reduce indoor air pollution, role of FCHVs for NCD prevention and control, community based initiatives to reduce alcohol related harms through reduction of domestic production and use of alcohol	2020	Civil society/Local developments	DPHOs/MoHP
	• Monitor the standards of air pollution from factories and industries in the city		MoUD/MoI	
	• Gradually displace the vehicles not meeting pollution standards		MoPP&TM/MOSTE	
	• Organize awareness programs to control unnecessary noise pollution using horns		MoPP&TM/MOSTE	

3.4 Oral Health:

***Strategic approach*:** Improving access to essential oral health services through community oriented oral health focusing on preventable oral diseases and oral care including care for cleft lip and cleft palate

Action areas	Key milestone	Target completion Date	Implementing agency	Coordination agency
Strengthen capacity of oral health human resources for promotion of oral health, prevention and care of oral diseases	• Orient primary health care workers (HA, ANMs) to identify oral health conditions and promote oral health care education and referral as a package of primary health care services	2020	Oral health unit	MoHP/NCD Unit
	• Create dental technicians position at the PHC level in human resource planning and deploy staff	2015	Oral health focal point (OHFP, NHEICC	NHEICC
	• Train paramedics and other practitioners in oral health education	2015	(OHFP)	DHO/LDO/CBO
	• Lobby for adoption of communities in different districts by dental colleges for community outreach programs	2020	OHFP	MoHP/University
	• Adopt the national oral health policy	2014	OHFP	MoHP/University
Increase access to information on oral health through health media campaigns and community based programs	• Deliver oral health publicity messages through mass media: TV, radio, newspaper and street dramas.	2015	OHFP	NHEICC
	• Conduct awareness programs among key community stakeholders (FCHV, SBA,AHW, HA) to promote oral health related behaviors	2015	OHFP/NHEICC	DHO
	• Conduct community awareness on prevention of oral diseases including cleft lip and cleft palate, childhood caries, early self care, early detection and utilization of health care services among specific vulnerable groups such as pregnant women, lactating mothers	2020	OHFP	DHO
Strengthen oral health prevention through school based education through strengthening of primary health care system	• Conduct oral health education and treatment program with emphasis on behavioral risk factors for dental caries (poor oral hygiene practice, consumption of refined carbohydrate and sugar rich diet) among school teachers, headmasters as a routine activity in primary schools • Advocate daily tooth brushing program using fluoridated toothpaste among parents	2020	OHFP	DEO
	• Conduct selective school-based dental sealant programs for grade 1 and 6 (first and second molars) in rural communities without any access to oral health care.	2020	OHFP	DEO/DHO
	• Integrate life skill based oral health education into school curriculum at different levels.	2020	OHFP	DEO/CDC
Research and surveillance for oral cancer	• Develop national oral cancer screening program at community levels	2020	OHFP/Dental colleges and hospital	OHFP

3.5 Mental Health:

Strategic Approach: Improving basic minimum care of mental health services at the community and improving competency for case identification and initiating referral at primary care level

Action areas	Key Milestones	Target completion date	Implementing agency	Coordinating agency
Strengthen legislation and policy in mental health	• Ratify mental health legislation -2068 in line with the provisions of the Convention on Right on Psychosocial Disabilities (CRPD), 2006 International Covenant on Civil and Political Rights, International Covenant on Economic, Social and Cultural Rights, Convention on the Rights of persons with disabilities, Convention on the Rights of the Child	2017	PPICD/MoHP, Mental Hospital	Mental health unit. NGOs, NHRC,NMC
	• Endorse National Mental Health Policy (NMHP) 2068 superseding NMHP 1997 and in line with CRPD	2015	PPICD/MOHP	Mental health unit, NGOs, WHO
	• Integrate Mental Health Policy in NHSP-III as a priority public health agenda and raise the issues of children, elderly and high risk groups (family members of labor migrants, street mentally ill people) as public health agenda.	2014	PPICD/CD	Mental health unit /NGOs
Strengthen health system capacity to provide essential mental health services and reduce treatment gap	• Establish a Functional Mental Health Unit at the central MOHP	2014	MoHP/DoHS	CSD
	• Assess in-service curriculum on mental health for primary care health worker training program and incorporate necessary adaptations	2015	Mental health unit/Academic institutions/NGOs	DoHS/RDs
	• One week training for supervisors/coordinators of mental health from DPHOs to build their capacity for public mental health activities	2020	DPHO	Mental health unit /DoHS
	• Ensure regular supply of essential psychotropic drugs for treatment of mental illness at the PHC level		LD/PHCRD	MoHP
	• Upgrade 50 bedded mental hospital to a 100 bedded National Mental Health Center to be focal point for mental health and training excellence in mental health		MoHP	MoHP/MoF/NPC
	• Increase bed capacity at zonal, regional and district hospitals by allocating certain number of beds to mental health patients		MoHP	MoHP

Strengthen community participation through community based approaches	• Pilot and evaluate community mental health program which includes training PHWs, FCHVs and MH OPDs to provide basic community mental health services	2016	Mental health unit.	MoHP
	• Scale up community mental health program with outreach approach in all the districts by providing one week mental health training to PHC HW in service block training, 12-15 participants in one session	2017	DPHO	Mental health unit/NHTC/Academic institutions
	• Foster innovative partnerships to gain support of influential community groups such as faith and traditional healers, religious leaders and community leaders and conduct anti-witch craft campaigns, organize public awareness sessions, and suicide prevention activities	2020	DPHO	DPHO
	• Integrate mental health in School Health programs and expand mental health education in schools		Mental health unit	MoHP
	• Training of FCHVs (one day), 50 participants per session in all districts to identify and report: i) number of completed suicides, ii) number of caged, chained , locked/isolated cases of mentally ill people and iii) number of homeless and abandoned	2020	DPHO	MH/Academic institution
	• Conduct advocacy on mental health for health and non-health sectors	2020	Mental Hospital /MoHP/RD/DPHO	Mental health unit /MoHP/NGOs/ Civil org.
Integrate mental health and NCD screening for Nepali migrant workers along with infectious disease screening	• Implement NCD screening and mental assessment points and provide counseling and clinical services as required		Depart. Of Labor/Mental health unit	MoHP
	• Analyze the past five year deaths records of the migrant workers including whose bodies have been brought back in the country		Mental health Unit	MoHP
Strengthen information on mental health Other research and surveillance refer to Action Area 4*	• Formulate a core set of mental health indicators to be reported to higher centers by PHCs2015	2015	Mental health unit	DPHOs/PHCs
	• Develop referral slips and pictorial flipcharts to be used by FCHVs	2020	DPHO	Mental health unit /Academic institutions

Action 4: Surveillance, Monitoring and Evaluation and Research:

Strategic approach: Strengthening systematic data collection on NCDs and their risk factors situation, program implementation and using this information for evidence-based policy and programme development

4.1 Strengthen surveillance:

Action areas	Key Milestones	Target completion date	Implementing agency	Coordinating agency
Adapt and implement WHO surveillance framework that monitors exposure (risk factors), outcome (morbidity and mortality), and health system response	• Conduct STEPS survey (including Step 3) or equivalent surveys, every five years using eSTEPS and including urine collection for sodium survey every five years (representative for urban and rural settings)	2018 end	NHRC	MoHP
	• Conduct one pilot survey to document baseline urinary sodium content to assess mean sodium consumption among Nepalese population	2016	NHRC	MoHP
	• Establish baseline information by conducting burden of disease study including key NCDs(COPDs, diabetes, cancers, and CVDs)	2015	MoHP/NHRC	MoHP
Conduct mental health research	• Monitor the ongoing research activities on mental and carry out necessary research on mental health	2020	MoHP/NHRC/Medical Colleges	MoHP
Allocate adequate funds for NCD surveillance and research including risk factor surveillance (including salt surveys) and health system response	• Lobby for increase of research grants from the government and other donors for NCDs by preparing research priority agenda for Nepal	2014 onwards	MoHP/NHRC	NHRC
	• Explore resources for NCD surveillance and research from the existing initiatives such as GAVI Alliance, the GFATM, USAID	2014 onwards	PPICD/MoHP	MoHP/Curative division (CD)
Institutionalize NCD surveillance through an appropriate governing mechanism to enhance ownership, sustainability and coordination at country level.	• Form a NCD surveillance committee at the MOHP with inclusion of non-health sectors such as transport, urban planning and police and develop a micro plan for NCD surveillance	Mid 2015	Curative Division/Epidemiology Unit (EDCD)	Curative Division
	• Institute a vital registration review committee and revise vital registry system	2015	M &E division/ CD	M and E Division/MOHP
	• Form an expert taskforce and incorporate NCD information in the HMIS	Mid 2015	M & E Division	M and E Division/MOHP
	• Introduce reporting guidelines and initiate routine report of hospital data including NCDs by private hospitals in the country in a format required by the	2016	M and E Division	M and E Division/MOHP

	HMIS			
Build national capacity for data management, data analyses and data use for advocacy, as well as for programme planning and monitoring progress in prevention and control of NCDs.	• Train data analyst and surveillance teams on STEPS Survey methods	2017 end	M & E Division, NHRC,	M and E Division/MOHP
	• Engage researchers and aspiring researchers to conduct economic analysis of NCDs on Health	2017 end	M & E Division, NHRC,	NHRC/CD
Strengthen vital registration and civil registration systems and improve medical cause of death reporting by proactively engaging relevant stakeholders/sectors.	• Adapt HMIS to complete mortality data by cause of death, outpatient data with ICD coding	2016 end	M and E Division	Management Division/HMIS Section
	• Review vital registration systems and make amendments to improve the reliability of information including deaths and births		M and E Division/CD	M and E Division
	• Train health workers on data collection for vital registry system	2017 end	M and E division	Management Division
Strengthen national cancer registration including population-based NCD registries	• Review existing cancer registration including correct diagnosis, encoding and recording of oral cancers	2015	Implementing hospitals	Implementing hospitals
	• Publish and disseminate annual cancer registry	annually	Implementing hospitals/CD	Implementing hospitals
	• Pilot hospital registry for diabetes in selected hospitals and expand the registry system in all the major hospitals	End of 2015	Implementing hospitals/CD	Implementing hospitals
	• Harmonize disease registries and establish essential NCD registries	2017	Implementing hospitals/CD	Implementing hospitals
	• Establish/strengthen appropriate hospital based surveillance through collection of routine reports on NCDs integrating with the HMIS to monitor disease burden	2017	Implementing hospitals/CD	Implementing hospitals
	• Train public health officers on MH and set up MH reporting system	2017	NHTC/Mental Hospital	Mental health unit
	• Revise HMIS to include a core set of MH indicators using data from PHC health workers and FHCVs	2020	MD/Mental Hospital	MD
Integrate information on NCDs into other national health surveys	• Adolescent and Youth Survey	Need to align with the survey	CD/NHRC	CD

	• Conduct national school health surveys (age 13–-17 years) using the global school-based student health survey (GSHS) every five years to collect data on multiple risk factors (e.g. physical activity, tobacco, overweight and obesity, and alcohol)	2016	CD/NHRC	MOHP/MOE
Secondary data analysis	• Conduct secondary analysis of STEPS survey to understand associated factors contributing to risk behaviors	2015	NHRC	NHRC
	• Secondary data analysis of adolescent and youth survey	2015	NHRC	NHRC
Disseminate results of surveillance, evaluation and research widely to all stakeholders	• Prepare dissemination briefs on STEPS survey, and other research in NCDs	2020 for STEPS Survey	CD	CD
	• Encourage publication of surveys and studies in the indexed journals	Continuous	MoHP/NHRC	MoHP/NHRC
Strengthen monitoring, evaluation and research on NCDs	• Conduct process monitoring of the NCD activities by stakeholders and publish the performance in the annual report	2015 annually	CD	CD

4.2 Improve monitoring and evaluation:

Action areas	**Key Milestones**	**Target completion date**	**Implementing agency**	**Coordinating agency**
Design and conduct evaluation of NCD interventions periodically	• Conduct mid-term assessment by 2017 and five year evaluation of National Action Plan by 2020	2017 and 2020	CD/PPICD	CD
Publish periodic reports on progress made in NCD prevention and control including reporting on key national targets	• Publish stakeholder performance report on NCD action plan	Continuous	CD/M & E and focal Units of MoHP	CD
	• Lessons of PEN package intervention	2017	NCD Unit	NCD Unit/MoHP
	• Indoor air pollution status	Two yearly	CBOs/MoHP	NCD Unit
	• Special reports on enforcement status of tobacco and alcohol regulations	Annual	Police/Trade	NCD Unit
	• Other reports: Oral health Mental health Road safety	Annual	Respective units/MoHP	NCD Unit

4.3 Strengthen research:

Action areas	Key Milestones	Target completion date	Implementing agency	Coordinating agency
Strengthen national capacity for research and development, including research infrastructure, equipment and supplies in research institutions, and the competence of researchers to conduct good-quality research	Train core team at the NHRC/MOHP to conduct STEPS Survey	2018 end	NHRC	WHO
	Provide training to research teams from academic institutions on NCD research priorities and NCD research methods	2 yearly	NHRC	NHRC/NCD Unit
	Train research teams , academia to conduct secondary data analysis on the existing data sources to generate better evidence for program and policy	2016 and thereafter at intervals	NHRC	MoHP
	Train program and policy officers and other stakeholders on NCD program management and evaluation	2017	PPIC/ Ma& E Division MOHP	PPIC/MoHP
Develop and implement a priority research agenda for NCDs	Develop 5 to 10 year NCD priority research agenda including mental health, oral health, road safety and advocate for fund support	2015	NHRC	NHRC
Strengthen organizations responsible for data collection, analysis and distribution, including production and publication of regular reports on the situation of alcohol use in the country and reporting to the relevant institutions	Initiate networks between research institutes abroad and academic institutions on joint NCD evaluation and primary research	July 2015 onwards	MoHA, MOLJCAPA, Civil Societies	MoHP
Conduct research on specific NCD topics	Conduct decoy shopping to evaluate the compliance practices at point of sale for alcohol and tobacco	2015 and 2020	MoHP	MoHP
	Conduct desk review and studies to generate evidence and disseminate best practices to support the policy and act approval process	2018 onwards	NHRC	MoHP
	Study alcohol attributable disease burden and effective interventions	2020	NHRC/NCD Unit	Curative division/MoHP
	Conduct assessment of walk ability of urban design in key priority urban areas (Kathmandu	2016	NHRC/Road Safety Program/MoUD	MoHP/MoUD

	and others) in partnership with road safety pedestrian safety and walk ability audits			
	Conduct a diabetes prevalence study in representative sample populations in ten districts covering all the geographical areas of the country	2015	NHRC	MoHP/ Nutrition program
	Undertake representative surveys to measure population iodized salt/sodium intake	Annually	NHRC/MoHP, DTFQC, MoAD	CHD/MoHP, WHO/UNICEF
	National Survey on Food Consumption including adequately Iodized Salt Consumption (raw and processed foods)	2017	NHEICC	Salt Trading Corporation, Ministry of Commerce and Supplies
	Routine Monitoring of iodized salt intake country level	2018	Nepal Pubic Health laboratory	WHO/UNICEF, Nutrition EDPs
	Urinary Excretion Surveys to review the levels of iodization, in-line with iodized salt intake (current vs recommended)	2015	NHRC	MoHP
	Conduct nationwide level of fluoride level assessment in drinking water	2018	NHRC/Oral health unit	MoHP
	Conduct national psychiatric morbidity survey and assessment of completed suicide cases in one year	2017	MH/NHRC	MoHP/Mental health unit
	Conduct evaluation of effectiveness of the BCC strategies and campaigns for NCDs	2018	NHIECC/NHRC	NHRC