INTRODUCTION

In 2002, WHO predicted that, by 2020, non-communicable diseases (NCDs) will account for 80% of the global burden of disease, causing seven out of every ten deaths in developing nations\(^1\). Now, at the dawn of the third millennium, NCDs appear to be sweeping the entire globe, with an increasing trend in developing countries\(^2\); accounting for 56% of all deaths in low- and middle-income countries\(^3\). The major NCDs include cardiovascular diseases (CVDs), chronic pulmonary diseases, diabetes mellitus, obesity and cancers. They usually appear when a person reaches middle age, after years of living with unhealthy behaviours. These behaviours are often linked to modernization and urbanization and result in interrelated conditions like raised blood pressure and obesity. In sub-Saharan Africa the average age of death from CVDs is at least 10 years younger than in developed countries\(^4\).

There is sufficient anecdotal evidence that the prevalence of NCDs such as diabetes mellitus, CVDs, and cancer is on the increase in Sierra Leone. These diseases are strongly associated with common lifestyle risk factors such as smoking, alcohol consumption, a diet rich in fats, sugars and salts; and physical inactivity. If these risk factors are not prevented today, we will be faced with a double disease burden tomorrow; as there is already a high burden of communicable diseases in Sierra Leone. Therefore there is still a window of opportunity to control these risk factors at the population level if we are to avoid the double disease burden; as preventing risk factors today reduces the burden of NCDs tomorrow.

SITUATIONAL ANALYSIS

The National Steps survey for the prevalence of the risk factors for NCDs conducted in November 2009 indicates that the Sierra Leonean population is likely to be exposed to significant risks of NCDS. Majority (99%) of the population was exposed to at least one of the risk factors such as current daily tobacco smoke, less than 5 servings of fruits and /or vegetables on average per day, low level of physical activity, over weight (BMI >25kg/m2), or raised blood pressure (Systolic Blood Pressure (SBP) ≥140 and/or Diastolic Blood Pressure
(DBP) ≥90mmHg or currently on medication for raised blood pressure). Specifically, 72% were exposed to 1-2 of these risk factors and 27% exposed to 3-5 risk factors.\(^5\)

The study further revealed that 17% of the adult population aged 25-64 years are current drinkers; with 14% and 5% of the male and female population engaged in heavy episodic drinking respectively. In addition, 34% of the population currently use tobacco products with 26% engaged in smoking tobacco products such as cigarettes, cigars or pipes of tobacco; and 8% smokeless tobacco. Moreover, 74% and 69% of the non-smoking population are exposed to environmental tobacco smoke (ETS) at home and workplace respectively. 35% of the population have raised blood pressure (i.e. SBP≥140 and/or DBP≥90mmHg or currently on medication for raised blood pressure) with only 7% on medications. The average BMI of the adult population is 23 kg/m\(^2\), with 22% classified as overweight (BMI ≥25 kg/m\(^2\)) and 8% obese (BMI ≥30 Kg/m\(^2\)). About 91% of the population consumes less than 5 servings of fruits and/or vegetables on average per day and a large proportion (87%) had sedentary lifestyles.\(^5\)

Evidence from hospital-based morbidity data also shows an increasing trend of cardiovascular diseases including hypertension and strokes; diabetes; cancers; sickle cell disease and epilepsy. There is a strong indication nationally and globally that burden due to NCDs would far outweigh that of infectious diseases in the 21\(^{st}\) century. In addition, the burden of NCDs due to injury is on the rise. It is therefore imperative that a sustained and coordinated public health response to the growing burden of NCDs must be mounted to contribute to a healthy and productive Sierra Leone.

**RATIONALE**
Notwithstanding the inspiring past initiatives, a renewed integrated approach is urgently required to control and prevent NCDs in view of:

- the absence of a comprehensive policy to address NCDs, life style related diseases and injury prevention;
a weak national coordination and implementation framework for programs and projects targeted towards prevention and control of NCDs;

- inadequate financial resources to implement sector-wide policies related to NCDs;

- epidemiological evidence that a growing burden of NCDs creates an important public health challenge for the national health system;

- the need for greater recognition by all stakeholders that major determinants of and risk factors for NCDs lie outside the health sector; and

- that integrated and inter-sectoral collaborative effort is the only effective way for the prevention and control of NCDs.

**SCOPE OF NCDs INTERVENTION**

The approach for the prevention and control of NCDs will focus on the risk factors and their underlying determinants, and also providing an equitable, quality treatment and care services for those living with NCDs at all levels. The interventions will not be limited to the traditional list of NCDs but will also address life style related factors, biological and chemical hazards, physical and built environments (for example work place, air quality and planning decisions that affect human health). Injury (intentional and unintentional) and related public health problems such as road traffic accidents (RTAs) which pose an increasing challenge to the country, will also be included in this policy document.

The most common modifiable and preventable risk factors for NCDs are tobacco use, alcohol abuse, unhealthy diets, physical inactivity and exposure to chemicals and pollutants. In addition, NCDs are linked to many underlying socio-economic and cultural factors. The national policy for NCDs prevention and control will recognize upstream risk factors and their determinants. It will strategically emphasize the use of relevant, cost-effective, integrated and evidence-based actions to prevent and mitigate individual and population-based consequences of NCDs. The long-term outcomes of prolonged exposure to the risk factors are manifested as physical and mental diseases which require long-term medical treatment and care. The MoHS will ensure that standard medical support and treatment are
provided to people with NCDs, and that the continuum of care and social support is provided by empowering their families and communities.

**Challenges and Opportunities**

**Challenges:**

Addressing NCDs in a developing country like Sierra Leone is a multifaceted challenge. Challenges will include but not limited to the:

- Unplanned urbanization,
- Unregulated tobacco, food and beverage industries,
- Poor road conditions and network,
- Unregulated drink driving,
- Integration of NCDs into PHC,
- Mainstreaming NCDs in the presence of Competing priorities,
- Funding for the prevention and control of NCDs,
- Institutional, community and public policy changes for incorporation of NCDs prevention and control,
- Integrating Surveillance of NCDs and their common risk factors.

**Opportunities**

- PRSP 2\(^6\) (2008-2012) and a National Health Sector Strategic Plan\(^7\) (2009-2013) had identified NCDs and mental Health as priority objectives
- Existence of an NCDs Directorate with a budget line within MOHS
- Interest of development partners for NCDs
- Results from recently conducted surveys such as GYTS and STEPS
- Inclusion of mental health and injury into NCDs
- Ratification of FCTC in 2010
Vision
To improve the health status of the population of Sierra Leone with regards to NCDs

Mission
The mission of this policy is to achieve a reduction in NCDs morbidity, mortality and risk factor prevalence through practical, cost-effective and evidence-based interventions at all levels of care.

Goal
To reduce the burden of NCDs including CVDs, chronic pulmonary diseases, diabetes mellitus, obesity, cancers, sickle cell disease, mental disorders and epilepsy in Sierra Leone

Objectives
1. To reinforce leadership and strengthen capacity of the health system for prevention and control of NCDs.

2. To advocate for and influence other relevant national policies and plans that may impact on prevention and control of NCDs.

3. To establish and strengthen an integrated NCDs surveillance system and provide evidence for public health decision making.

4. To promote healthy lifestyle and reduce risk factors using health promotion strategies.

5. To promote research for the prevention and control of NCDs.

6. To strengthen partnerships and establish a network of relevant stakeholders for surveillance, prevention and management of NCDs.
7. To establish a System for NCDs monitoring and evaluating the effectiveness of promotion, prevention and control measures.

VALUES AND GUIDING PRINCIPLES

The Sierra Leone National NCDs policy is built around eight (8) key principles:

1. **Ownership and accountability** - The government must play a leading role in the development and implementation of the policy and be accountable.

2. **People-centred health care** – Interventions and initiatives must adhere to a people-centred approach.

3. **Cultural relevance** – Policies, programmes and services must respect and take into consideration the specific cultural and religious diversity of people within Sierra Leone.

4. **Focused on reducing inequities** – Interventions must address the need to reduce inequities by considering the social determinants of health to enable the attainment of healthy outcomes by all.

5. **Encompassing the entire care continuum** – The National Policy affirms the importance of a balanced approach to NCDs, from primary prevention to tertiary care.

6. **Involving the whole of society** – Multi-sectoral partnerships and community participation are essential to a successful implementation of the policy and plan

7. **Integral to health systems strengthening** – Integrating NCDs prevention and management into primary health care is essential for Health system strengthening.
8. **Flexibility through a phased approach** – A phased approach should allow us the flexibility to intervene at different points along the continuum depending on our local situation, capacity and resources.

**PRIORITY AREAS FOR INTERVENTION**

1. **Health promotion and prevention of NCDs**

   NCDs prevention must emphasise the importance of health education, legislation and an enabling environment to make healthy lifestyle easier to practice. These must be directed at risk factors such as tobacco use, unhealthy diet, harmful use of alcohol and physical inactivity as well as RTAs, sickle cell disease, mental health disorders and epilepsy.

2. **Capacity building (infrastructure, staffing, training, equipment)**

   The paucity of human resources for health will require recruitment, training and task shifting. Recruitment and training issues will be considered in the short, medium and long-term. Training on the prevention and control of NCDs and their risk factors will be integrated into the general pre-service training programs of Community Health Officers, nurses, midwives, social workers and MCH Aides; so as to ensure sustainability, accessibility, early detection and continuum of care. Continued medication education on NCDs and their risk factors through in-service refresher’s courses will be promoted for all health care professionals at all levels. The equipment/tools for the screening and early detection of NCDs including protocols, treatment and care guidelines will be provided at all levels of care. Infrastructural improvement nationwide will be advocated for.

3. **Surveillance of NCDs and their risk factors**

   A surveillance system for NCDs and their risk factors must be established and integrated into the national Health Management and Information system (HMIS) and the Integrated Disease Surveillance and Response (IDSR).
4. **NCDs Management at Primary Health Care level**

The prevention and management of NCDs must be integrated into Primary Health Care (PHC). PHU staffs nationwide will be trained on the WHO Package of Essential Interventions for the prevention and control of NCDs at PHC (WHO-PEN).

5. **Monitoring and Evaluation**

A Monitoring and evaluation plan for NCDs and their risk factors policy and Action plan will be developed and implemented. A National Steering Committee will be established to oversee performance of the stakeholders through six monthly reports and annual reviews. The DPNR/MOHS will serve as the secretariat to the National Steering Committee and will coordinate, collect and process reports from the stakeholders. Evaluation will be conducted through regular internal and external assessments.

6. **Research on NCDs and the risk factors**

Research will be carried out to identify problems, generate solutions, test interventions to solve the problems, disseminate solutions and advocate for change.

7. **Collaboration and partnership**

A forum for partners will be established to discuss and address issues related to NCDs and their risk factors. This forum will share information and experience for making the NCDs surveillance, prevention and management more efficient.

8. **Financing**

Implementation of the packages for the prevention and control of NCDs is a multidisciplinary approach involving a range of stakeholders. Thus, adequate funding and resources must be allocated to begin the prevention and control of NCDs nationwide. This will include an appropriate share of finance and resources for all stakeholders who implement activities, directly or indirectly, that contribute towards the prevention and control of NCDs. GOSL will encourage Stakeholders/development
Partners to mobilize funds through projects, grants from national and international agencies with the partnership and guidance of the Ministry of Health and sanitation.

ROLES AND RESPONSIBILITIES OF GOVERNMENT AND PARTNERS

Government

The GOSL through the MOHS shall:

1. *Foster leadership for NCDs within the health care sector by building on existing structure and ensure* through the MOHS coordination and facilitation of the contribution of other ministerial and government bodies.

2. Strengthen human resources capacity, improve training of health care workers and establish a continuing education programme at all levels of the health care system with a special focus on PHC.

3. Build on existing structures and processes and strengthen institutional capacities e.g. *strengthening the directorate of NCDs with adequate human resource and funding.*

4. Support national policies, strategies and action plans providing effective legislations and regulations, with regards to NCDs and their risk factors.

5. Provide information on progress made in the implementation of the national NCDs Policy and plan

6. Provide accurate and balanced information for the population to enable them make healthy choices and to ensure the availability of appropriate health promotion and education programmes on NCDs and their determinants.

7. Promote and encourage participation of NGOs, civil society, communities, the private sector, the media, development partners in activities related to NCDs prevention and control.

8. Promote and Invest in surveillance, research and evaluation of NCDs and their determinants.

9. Provide funds and identify other sources of funding to finance the National NCDs action plan implementation.
WHO and Other Partners

WHO and other Partners should:

1. Provide technical and financial assistance in the development, implementation and evaluation of advocacy campaigns for the prevention and control of NCDs.

2. Support the government in the implementation of inter-sectoral initiatives in Sierra Leone, such as the WHO Healthy Cities.

3. Provide support to the MOHS in strengthening opportunities for training and capacity-building with regards to the public health aspects and appropriate cost-effective clinical interventions for NCDs.

4. Support the development and dissemination of protocols and guidelines for rational use of medicines and technology for NCDs prevention and control, as an integral part of health systems.

5. Support the development of networks of community-based programmes for NCDs prevention and control at national and district levels.

6. Provide support to government in implementing the Framework Convention on Tobacco Control (FCTC) and Support national programmes to reduce other NCDs modifiable risk factors.

7. Assist in developing relevant and practical research agendas to support NCD prevention and control including capacity building for epidemiological and health systems research.

8. Actively promote collaborative relationships with international stakeholders, national and regional funders of health programmes to support the work in NCDs prevention and control within the Sierra Leone (WHO to provide leadership).

9. Support the development of relevant indicators and milestones for Sierra Leone and encourage their use.