REPUBLIC OF GHANA

MINISTRY OF HEALTH

National Policy for the Prevention and Control of Chronic Non-Communicable Diseases in Ghana

October 2011
FOREWORD BY MINISTER OF HEALTH

Non-communicable diseases (NCDs) contribute significantly to illness, disability and deaths in Ghana. Their burden is projected to increase due to ageing, rapid urbanization and unhealthy lifestyles. The proportion of women aged 15-49 years who are overweight or obese more than doubled from 13% in 1993 to 30% in 2008. The proportion of children under five years of age who are overweight increased from less than 1% in 1988 to 5% in 2008. Less than 5% of adults consume adequate amounts of fruits and vegetables. Given these unhealthy statistics, it is not surprising that up to 48% of Ghanaian adults have hypertension and 9% have diabetes.

It was in recognition of their impact on public health that the Ministry of Health introduced the Regenerative Health and Nutrition Programme in 2006 and developed a health policy which clearly prioritizes the promotion of healthy lifestyles and healthy environments and the provision of health and nutrition services. The Non-Communicable Diseases Policy has been inspired by the national health policy and builds on an earlier policy prepared in 2002. It provides the framework for planning and implementing NCD-related programmes over the next five years. It recognises that effective implementation depends on enabling public sector-wide policies in trade, food and agriculture, transportation, urban planning, etc. It is essential to enact or enforce relevant legislation to provide the backbone for food, tobacco and alcohol policies.

The NCD-policy covers four major groups of NCDs which share common risk factors – cardiovascular diseases, diabetes, cancers and chronic respiratory diseases. It prioritises health promotion and early detection and proposes an integrated approach to implementation of NCD-related programmes. This approach has contributed to the reduction in the use of tobacco among men aged 35 years and older from 19.8% in 2003 to 15.2% in 2008. It provides the template for the development of a NCD strategic plan and is coherent with other related plans and policies such as the alcohol policy and the cancer strategic plan.

I would like to thank the NCD Control Programme for coordinating the process to develop this policy. I thank the World Health Organization and the West Africa Health Organization for their technical and financial contribution to this process. I thank all the agencies of the Ministry of Health, other sectors, departments and agencies, our Development Partners and all the stakeholders who made inputs into this policy. I call on all sectors of the economy and the general public to support the implementation of this NCD policy.

Hon. Joseph Yieleh Chireh (MP)
Minister for Health
ACKNOWLEDGMENTS

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We are immensely thankful to the members of the NCD Strategic Plan Technical Working Group, the NCD Prevention and Control Programme of the WHO Regional Office for Africa and participants at the various consultative meetings, and experts who made contributions to this policy.
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<td>BMC</td>
<td>Budget Management Centre</td>
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<td>CEPS</td>
<td>Customs and Excise Prevention Services</td>
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<td>CHIM</td>
<td>Centre for Health Information Management</td>
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<td>CVD</td>
<td>Cardiovascular disease</td>
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<td>Disability-adjusted Life Year</td>
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<td>DHIMS</td>
<td>District Health Information Management S</td>
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<td>Expanded Programme on Immunization</td>
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<td>GAPA</td>
<td>Global Alcohol Policy Alliance</td>
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<td>GDHS</td>
<td>Ghana Demographic and Health Survey</td>
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<td>GHS</td>
<td>Ghana Health Service</td>
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<td>GOG</td>
<td>Government of Ghana</td>
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<td>HPV</td>
<td>Human Papilloma Virus</td>
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<td>IDSR</td>
<td>Integrated Disease Surveillance and Response</td>
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<td>LMIC</td>
<td>Low and Middle Income Countries</td>
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<td>MOWAC</td>
<td>Ministry of Women and Children</td>
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<td>NCDs</td>
<td>Non-communicable Diseases</td>
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<td>NGO</td>
<td>Non-governmental Organization</td>
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<td>NHIS</td>
<td>National Health Insurance Scheme</td>
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<td>PEN</td>
<td>Package of Essential NCD Interventions</td>
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<td>PSA</td>
<td>Prostate Specific Antigen</td>
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<td>SHEP</td>
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<td>VIA</td>
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<td>VILI</td>
<td>Visual Inspection with Lugol’s Iodine</td>
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<td>WAHO</td>
<td>West Africa Health Organization</td>
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1 Introduction

This national policy sets out the broad path Ghana would pursue in its efforts to prevent and control the chronic non-communicable diseases (NCDs). It draws inspiration from various policy and strategy papers in Africa and in the country.

Chronic NCDs have been defined as diseases or conditions that occur in, or are known to affect, individuals over an extensive period of time and for which there are no known causative agents that are transmitted from one affected individual to another. The World Health Organization (WHO) defines the scope of NCDs includes cardiovascular diseases, mainly heart disease and stroke; cancers; chronic respiratory diseases; diabetes; others, such as mental disorders, vision and hearing impairment, oral diseases, bone and joint disorders, and genetic disorders.

Chronic NCDs account for 60% of the estimated 58 million global deaths each year and 44% of premature deaths. The age-standardized disability-adjusted life year (DALY) rates for NCDs are higher in low and middle income countries (LMICs) than in high-income countries. Eighty percent of chronic disease deaths occur in LMICs, where most of the world’s population lives. People in these countries tend to develop disease at younger ages, suffer longer, and die sooner than those in high income countries.

Globally, the World Health Organization (WHO) estimates that mortality from NCDs will increase, overall, by 17% in the next 10 years. The largest increase in mortality will be seen in developing countries - about 27% in the African region. Global cancer deaths are projected to increase from 7.4 million in 2004 to 11.8 million in 2030, and global cardiovascular deaths from 17.1 million in 2004 to 23.4 million in 2030. NCDs are projected to almost equal communicable, maternal, perinatal, and nutritional diseases as the most common causes of death in Africa by 2020. Much of the increase in the NCDs is due to globalization, rapid unplanned urbanization, population ageing, and lifestyle changes such as tobacco use, decreasing physical activity, and increasing consumption of unhealthy foods.

NCDs have a high economic burden and have the potential of tipping households into poverty and maintaining them in it. WHO estimates that in developing nations experiencing rapid economic transition, heart disease, stroke, and diabetes alone reduce gross domestic product (GDP) by between 1% and 5% each year. In a study of 23 LMICs, it was estimated that US$84 billion of economic production could be lost from heart disease, stroke, and diabetes alone in these between 2006 and 2015.

In spite of this high economic burden, there is very little investment in NCDs. A study of estimated donor spending on NCDs from 2001 to 2008 in developing countries revealed that less than 3% ($503 million out of $22 billion) of the overall global development assistance for health was dedicated to NCDs in 2007.

2 Burden of NCDs in Ghana

In Ghana, the major NCDs are grouped into four clusters:
1. Chronic NCDs which share common risk factors – cardiovascular diseases, diabetes mellitus, cancers, chronic obstructive pulmonary disease
2. NCDs of genetic origin – Sickle cell disease and other haemoglobinopathies
3. Injuries
4. This includes other special NCDs which include oral health and mental health.

This policy document focuses on the four major NCDs as identified in the first cluster. These four NCDs make the largest contribution to overall NCD mortality resource poor countries. As they share common risk factors namely: tobacco use, harmful alcohol use, unhealthy diet, and physical inactivity, they can be prevented through an integrated approach. Policies to address the other NCDs will be developed separately. Currently a stand-alone policy on newborn screening for sickle cell disease and a strategic plan for sickle cell disease have been developed.

According to the 2010 national census, Ghana has an estimated population of 24.2 million and a male to female sex ratio of 95:100. About 41.3% of the population is aged less than 15 years and 5.3% is older than 64 years. Life expectancy is estimated at 60 years. There is rapid urbanization - the population living in urban areas increased from 32% in 1984 to 44% in 2000. By 2010, an estimated 51% of the population lived in urban areas. Ghana has recently been categorized as a low middle-income country. According to the World Bank, Ghana has a per capita GDP of $1,190. About 28.5% of the population lives below the poverty line. Per capita health expenditure in 2009 was about $45. Official development assistance (grants and loans) constitutes 24% of Government spending in Ghana.

Analysis of institutional data in Ghana suggests several NCDs have been increasing in both absolute and relative terms. The reported outpatient cases of hypertension in public and mission facilities other than teaching hospitals increased from about 60,000 cases in 1990 to about 600,000 cases in 2009. Hypertension has ranked in the top five outpatient diseases for more than 15 years, accounting for 3.0%-5.0% of all new outpatient diseases across all ages. It ranks as the third most common newly diagnosed outpatient disease among adults.

In 2002, cardiovascular diseases (CVD) accounted for 8.9% of institutional deaths (excluding teaching hospitals) in 2003 compared to malaria which accounted for 17.1% of the deaths. In 2008, CVDs were the leading cause of reported institutional deaths accounting for 14.5% of institutional deaths compared to malaria which accounted for 13.4% of the deaths.

WHO estimates that NCDs account for an estimated 34% deaths and 31% of disease burden in Ghana. There an estimated 86,200 NCD deaths each year with 55.5% occurring in persons aged less than 70 years and 58% of males being affected. The age standardized NCD death rate is 817 per 100,000 for males and 595 per 100,000 for females. The prevalence of adult hypertension in Ghana appears to be increasing and ranges from 19% to 48%. Up to 70% persons identified to have hypertension are not on treatment and only 0%-13% of those with hypertension have their blood pressures well controlled. Nearly half of persons identified with hypertension have target end organ damage suggesting that these persons have had long-standing disease without appropriate treatment. The prevalence of adult diabetes has ranged from 6% to 9%. The prevalence of asthma based on exercise-induced bronchospasm (EIB) and atopy, by skin test responses to common
allergens was about 3% in school children aged 9-16 years in Kumasi in 1997\textsuperscript{14} and about 3% in adults\textsuperscript{12}.

The burden of NCDs in Ghana is projected to increase due to ageing, rapid urbanization and unhealthy lifestyles. Studies show that the proportion of women aged 15-49 years who are overweight or obese more than doubled from 13% in 1993 to 30% in 2008. The proportion of children under five years of age who are overweight increased from less than 1% in 1988 to 5% in 2008. According to the Ghana Demographic and Health Survey (GDHS) 2008, less than 5% of adults consume adequate amounts of fruits and vegetables. The GDHS 2008 also indicated that 41% of adults had not engaged in any vigorous physical activity 7 days prior to the survey. The prevalence of tobacco consumption in males 15 – 49 years reduced from 11% in 2003 to 9% in 2008. However 15% of adult males aged 35 years and above reported using tobacco 24 hours preceding the survey in 2008. Alcohol misuse has been found to be relatively high. In a survey in the Greater Accra Region in 2006, 20% of respondents reported heavy alcohol use in the 7 days preceding the survey.

3 Policy Framework

The current policy draws inspiration from the national health policy of 2007, Health Sector Medium Term Development Plan 2010 -2013, the health promotion policy of 2005, the Expanded Programme on Immunization (EPI) Policy of 2010 and the Child Health Policy of 2007-2015, the Regenerative Health and Nutrition Programme published a strategic plan 2007-2011, and the Disease Control Strategy 2010-2014.\textsuperscript{15-18} A draft policy for NCDs was developed in March 2002 by a technical team with support from WHO but the final version was not published.\textsuperscript{19}

Globally, two policy documents have been produced; the Global Strategy for Diet, Health and Physical Activity of 2004 and the Framework Convention on Tobacco Control (FCTC) of 2003.\textsuperscript{20, 21} The WHO Regional Office for Africa produced a regional strategy paper in 2000.\textsuperscript{22} It has subsequently published strategy papers based on specific NCDs (e.g. diabetes, cancers)\textsuperscript{23-25} and on specific risk factors (e.g. harmful alcohol use, food safety).\textsuperscript{26, 27} WHO has also published a report on the current status of NCDs and their risk factors, as well as progress made to address them in various countries.\textsuperscript{4} A high-level UN General Assembly was held in September 2011 that sought to place NCDs on the global developmental agenda. The draft resolution called on countries to promote, establish or support and strengthen multisectoral NCD policies by 2013.\textsuperscript{28}

4 Vision, Mission, Goal and Objectives

The vision of NCD Prevention and Control is to create a healthy nation that lives longer with optimal physical and mental health.

The mission is to contribute to reducing avoidable NCD-related morbidity and mortality through health promotion, provision of enabling environment, strengthening of health systems, provision of health resources, partnerships and empowerment of communities.
The goal of the Ghana NCDs policy is to ensure that the burden of NCDs is reduced to the lowest possible level as to render it of little public health or clinical consequences. This will involve reducing avoidable morbidity and premature mortality related to major NCDs.

The objectives are to:

• Reduce the incidence of chronic NCDs
• To reduce the unhealthy lifestyles that contribute to NCDs
• To reduce morbidity associated with NCDs
• To improve the overall quality of life in persons with NCDs

5 Guiding Principles

The principles that guide the implementation of NCD policy include the following:

• Evidence-informed – policy and interventions which have scientific and/or historical evidence of being productive will be given priority
• Cost-effective – all things being equal, the most cost-effective interventions will be selected as these give value for money. Of course, other considerations, such as side effects, social cost, cultural and political acceptability are all important criteria to consider in the evaluation of interventions.
• Culturally relevant – to the extent possible, interventions would respect the cultural sensibilities of the communities in which they will be implemented. For example, recommended fruits and vegetables will give priority to those that are available or favoured locally
• Gender sensitive – in line with international initiatives to draw attention to the vulnerability and impact of NCDs on women and children (owing partly to their low socio-economic, legal and political status) Ghana’s NCD policy will respond to the gender dimensions of NCDs
• Reduced inequity – besides being gender-responsive, NCD programmes will seek to reduce inequities between groups and geographical areas in the vulnerability and health outcomes of NCDs and their risk factors
• Community-participation – the District Assembly, traditional authorities and opinion leaders will be involved in the planning and implementation of NCD programmes.
• Integrated services – for efficiency and to reflect their shared common risk factors, NCD programmes for specific diseases will be integrated. The policy also advocates for integration of related programmes such as TB control and NCD control. In line with the Political Declaration from the UN High-level Meeting in September, 2011, NCD-related services will be integrated into primary health care services through health systems strengthening, according to capacities and priorities
• Affordable technology – the best evidence-based interventions may not necessarily be affordable in a poor resource setting such as Ghana. The most affordable technology, medicines and delivery systems will be employed in the implementation of the NCD policy
• Life course approach – NCDs programmes will target pregnant women, through newborn and infants to the elderly population. As several childhood risk factors track into adulthood,
the NCD policy will target the youth, in collaboration with the Adolescent Health Programme of MOH, the Ministry of Youth and Sports, and other institutions.

6 Methods

The process started with a joint West Africa Health Organization (WAHO) and World Health Organization-sponsored workshop for Anglophone West Africa in Banjul, The Gambia in March-April 2010. The purpose of the workshop was to build the capacity of country teams to develop or finalize integrated policies and action plans for NCDs prevention and control. Ghana was represented by the NCD Control Programme Manager, the Ag. Deputy Director Health Promotion Dept. of the GHS, the national School Health Education Programme Coordinator, and the WHO Country Advisor on NCDs. A Technical Working Group (TWG) was constituted and members assigned various topics. Preparation of the document involved review of existing policies and strategies, international resolutions, strategic plans of various programmes and general literature review to identify cost-effective interventions.

Various drafts of the policy were developed and discussed at meetings of the TWG. A sub-group of the TWG was responsible editing the document. The document was initially presented to a small group of selected stakeholders from various MDAs. Later, a revised version was presented to a wide group of stakeholders at a consultative meeting in November 2011.

7 Governance and coordination

The NCD Control and Prevention Department will be responsible for the planning and coordination of programmes related to NCDs in the country. The NCD Control and Prevention Department Programme established as one of the departments under the Public Health Division, Ghana Health Service. In order to reflect its priority status and to draw more resources, it is envisaged that Programme Managers will be appointed for specific programmes such as cancers, diabetes, and cardiovascular diseases.

Currently, the key functions of the NCD Control and Prevention Department are:

- To provide support and promote NCD prevention and control interventions at all levels using affordable strategies and technologies
- To advocate and support legislation that facilitate or favour healthy lifestyle choices
- To develop, support, coordinate and monitor interventions to reduce modifiable risk factors such as unhealthy diets and physical inactivity
- To develop programmes aimed at early detection of NCDs in symptomatic and non-symptomatic persons as well as programmes to improve clinical and preventive care services.
- To identify, build or mobilize financial and human resource capacity and logistical support for NCDs
- To foster operational research on NCDs and their risk factors and to monitor NCD trends and patterns
• To strengthen partnerships within the health sector and between non-governmental organizations (NGOs), civil society organizations (CSOs), the private sector and the community to promote healthy lifestyles

A multisectoral National Advisory Committee will be established to advise the Minister of Health on actions to be taken to prevent and control NCDs. This Committee will meet quarterly. Members will be drawn from relevant institutions which influence the development and outcome of NCDs such as the Ministries Departments and Agencies, Universities, professional bodies and NGOs

In line with the recommendations of the health sector reviews of 2008 and 2009, the Ministry of Health (MOH) will continue to work with the Ghana Health Service (GHS) to integrate the Regenerative Health & Nutrition Programme and the GHS health promotion and chronic NCD programmes. MOH will increase the allocation of funds to NCD programmes, particularly as its status is elevated from a Programme to a Department within the GHS.

The prevention and control of NCDs will be mainstreamed into regional and district level activities. In line with the Disease Control Strategic Plan 2010-2014, Regional and District Focal Persons will be appointed for NCDs. Regional Focal Persons will liaise between the Regional Director of Health Services and the national NCD Control Programme.

The policy recognises that favourable sector-wide public policies in areas such as trade, urban planning, transport, agriculture, education, finance and social services are essential. For example, urban planning policy should encourage the provision of safe open spaces such as well-lit recreational and leisure parks, dedicated bicycle lanes and paved areas for jogging, walking or relaxation. In this regard whole-of government approach across all sectors would be adopted.

8 Policies and Interventions

NCD policy will relate to four strategic areas:

1. Primary prevention – tobacco, diet, physical activity, alcohol and immunization
2. Early detection and clinical care
3. Health system strengthening
4. NCDs financing

8.1 Primary Prevention

Primary prevention will include policies relating to tobacco control, diet, physical activity, alcohol and immunization. All primary prevention interventions will be underpinned by systematic health promotion. In line with WHO resolutions, MOH will give high priority to promoting healthy lifestyles among in and out of school youth. Health promotion policy will promote intake of fruits and vegetables; high fibre diet, moderate physical activity; reducing intake of energy dense foods, salt, trans fatty acids, and sugar; avoiding tobacco; reducing excessive alcohol intake; and undergoing
periodic medical check-ups. Commercially marketed diet soda will not be encouraged due to its doubtful value and potential harmful effects.

Wellness programmes will be established and supported in clinics, communities, schools and workplaces. The celebration of international, national days and months will be better organized with improved geographical coverage and sustained messages. MOH will institute national awareness months for cancers, diabetes, and hypertension. Know your blood pressure, blood sugar and blood cholesterol campaigns will be promoted during these awareness celebrations.

8.1.1 Tobacco

Ghana was the 39th country to ratify the Framework Convention on Tobacco Control (FCTC) in December 2004. In 2003, Ghana started a process to develop national legislation to reduce demand for and supply of tobacco as well as encourage tobacco users to quit their habit. The national tobacco bill is yet to be passed. A needs assessment on the implementation of the WHO FCTC in Ghana was conducted in April, 2010. In line with WHO’s package of six proven policies (christened ‘MPOWER’), the national tobacco policy will:

- Monitor tobacco use and prevention programmes,
- Protect people from tobacco smoke,
- Offer help to quit tobacco use,
- Warn about the dangers of tobacco,
- Enforce bans on tobacco advertising, promotion and sponsorship, and
- Raise taxes on tobacco.

Priority will be given to taxation which has been established as most cost-effective strategy to control tobacco consumption. Priority will also be given to the ban of smoking in public places as several studies have shown that it significantly reduces the incidence of tobacco-related diseases such as cardiovascular diseases, asthma and other respiratory diseases. A comprehensive Action Plan on Tobacco control will be developed.

8.1.2 Diet

In Ghana, the Food and Drugs Board is mandated to monitor and regulate the composition of food, the food additives, pesticide residues in foods, residues of veterinary drugs in foods, contaminants, etc. Customs and Excise Prevention Services (CEPS) and the Ministry of Agriculture are responsible for food import and export inspection and certification systems. As the Food and Drugs Law does not explicitly provide for food labelling, MOH will support an amendment that requires labelling of pre-packaged foods.

Legislation on food content such as salt, cholesterol and trans fatty acids has been cost-effective in achieving population-wide reductions in levels of these substances and in cardiovascular diseases. In order for legislation and nutritional policies to be effective, research is needed to study food consumption patterns, and the chemical content of various foods. In Ghana, studies have shown
that in rural communities in Ashanti Region salt reduction (through health education) is feasible and can lead to small but important reductions in blood pressure. MOH and its agencies will develop locally relevant healthy eating and dietary guidelines. MOH will also advocate for Government to introduce fiscal levers for healthier foods and drinks, with the view to making foods such as fat-free dairy products, foods low in cholesterol, etc cheaper than corresponding non-healthy products. Specific programs will be targeted at street food vendors to ensure healthier foods.

8.1.3 Physical Activity

Ghana endorses the WHO recommendation for moderate-intensity physical activity such as brisk walking for at least thirty minutes on most days of the week. The general public will be encouraged to engage in normal physical activities at home, at work and during recreation with incremental vigour. The policy will also specifically target persons who are typically sedentary such as secretaries, drivers and market women who may be at high-risk of NCDs. Adults can combine moderate- and vigorous-intensity activities to meet the weekly physical activity recommendation. Every adult should also perform activities that maintain or increase muscular strength and endurance a minimum of two days each week. The public will be educated to appreciate that even minimal physical activity are more beneficial than little or no physical activity.

MOH recommends that children engage in physical activity for about one hour on most days of the week. The NCD Policy will therefore advocate for physical education sessions in Basic and Senior High Schools to be less theoretical and more heavily practical with outdoor and indoor-games.

Physical and Dietary guidelines have been produced by the Regenerative Health and Nutrition Programme of MOH. A national physical activity plan will be developed to promote physically active lifestyles.

8.1.4 Alcohol

MOH, led by the Food and Drugs Board (FDB) has developed a non-commercial influenced draft policy with the overall aim of helping to minimise alcohol-related harm to individuals, families and society. The policy addresses levels, patterns and context of alcohol consumption through a combination of measures that target the population at large, vulnerable groups, such as young people and pregnant women, affected individuals and particular problems such as drink-driving and alcohol-related violence.

Currently, Customs and Excise (Duties and other taxes) (Amendment) Act 2007, Act 739 provides for specific excise duty rates on locally produced alcoholic, non-alcoholic and tobacco products. In line with the MOH draft policy on alcohol, access will be regulated through pricing controls. The availability of alcoholic products will be regulated through a reduction in licensing hours for sales
outlets. Existing laws on sale of alcoholic products to minors will be enforced. MOH also advocates that taxes on alcohol and fines levied on drink-drinking offenders should to be channelled into alcohol control programmes.

The current aggressive and widespread promotion of alcoholic products (including ‘bitters’) will be regulated by the Food and Drugs Board and other relevant agencies. The draft policy on alcohol protects young people through restriction on advertising in the mass media, sponsorship of social events by alcohol industry and general marketing of alcoholic drinks and health warning labels.

The Ghana Road Safety Commission is responsible for policies and interventions to reduce drink-driving including regular education of drivers and random roadside testing.  In line with the Ghana Education Service’s School Health Policy, education and counselling on alcohol, tobacco and substance abuse will be provided in all schools.

Specialist alcohol treatment services (currently provided largely by the Psychiatric Hospitals) will be made available in regional hospitals. Specific treatment guidelines for alcohol dependence and alcohol-related medical problems will be developed. Counselling services will be provided for persons who misuse alcohol. Personnel in the Accident and Emergency Centres will be trained to manage problems related to alcohol misuse.

8.1.5 Immunization

Ghana’s EPI childhood immunization schedule already includes hepatitis B, a virus that can cause liver cancer. Ghana will work towards introducing human papilloma virus (HPV) vaccination of girls aged 9 to 13 years in order to prevent cervical cancer. There is not much information on the epidemiology of HPV and cervical cancer in Ghana. Moreover, the current cost of three-dose course of HPV vaccination is prohibitive.

8.2 Early Detection and Clinical Care

8.2.1 Early Detection

Early detection policy will target persons with NCD symptoms and persons with no NCD symptoms but who are at risk of NCDs. For persons with NCD symptoms, the objective will be to get them to report to health facilities early enough to improve their clinical outcomes. For healthy individuals, screening will aim to detect risk factors or precursors of disease in order to prevent NCDs from becoming fully established.

Cardiovascular diseases constitute a significant proportion of medical emergencies. The majority of cancer cases present in advanced forms. In Ghana, longstanding uncontrolled hypertension is common and manifests as end organ damage. Consequently, the general public will be educated on the early warning signs of various NCDs. The incentive to report early with NCDs will improve with increasing subscription to the national health insurance scheme. Relevant educational
materials will be developed. The capacity of health facilities to diagnose NCDs early will be improved and referral systems strengthened.

Adults aged 25 years and above will be routinely screened for high blood pressure. The body mass index (BMI) of persons suspected to be overweight or obese will be measured. Screening will be conducted in health facilities and in the general communities. In addition to the BMI, opportunistic screening at health facilities will cover some cancers, cholesterol, hypertension, and diabetes. All persons with cardiovascular disease or diabetes will be screened to assess their cholesterol levels. Health facilities will also be made more responsive to ‘well’ persons who visit for medical check-up, especially when these are not part of formal required medical examinations. On the whole, people without symptoms of NCDs but who are at risk will be identified through public education, promotion of annual and periodic medical check-ups and campaigns in schools, churches, mosques, workplaces and communities where blood pressure, BMI, blood sugar screening may be performed.

As a low-resource country, Ghana will opt for one-time screening for cervical cancer of premenopausal women with an intact uterus, and no past history of cervical cancer. This is based on the observation that the lifetime risk of cervical cancer is reduced by 25-35% if women over 35 years undergo a single screening by means of either visual inspection with acetic acid (VIA) or HPV testing and precancerous lesions are treated. VIA or Visual Inspection with Lugol’s Iodine (VILI) screening sites will be established in all regional hospitals and cryotherapy (or cold coagulation) provided in zonal centres. Colposcopes and other essential equipment will be strategically provided in selected regional hospitals and health professionals trained to use them. In order to reduce the turn-around time in reporting of biopsy results, pathologists will be posted to regional facilities. As HPV testing becomes cheaper (currently about $5.00 per test), Ghana will introduce it into the cervical cancer screening programme. Further details are provided in the Cancer Strategic Plan 2012-2016 and cervical cancer guidelines for Ghana.

Ghana will also develop specific policy guidelines for breast cancer and prostate cancer, these being leading cancers which are amenable to screening. Women aged 20 years and older will be encouraged to perform regular self-breast examination. Priority will be given to biennial clinical breast examination (CBE) in asymptomatic women aged 35-69 years along with treatment of all stages of breast cancer. Public education will be intensified to raise awareness about breast and other cancers. Ghana will integrate breast and cervical cancer screening. Women undergoing cervical cancer screening will receive clinical breast examination and also be taught how to perform breast self-examination.

Prostate cancer is more enigmatic as it is far more frequently found as an incidental finding at autopsy than as a cause of death. Although the impact of screening with prostate specific antigen (PSA) with or without digital rectal examination on mortality has been conflicting in clinical trials, Ghana recommends voluntary (not routine) screening in men aged 45 years and older. Persons at high risk of prostate cancer, such as those with a strong family history and high baseline PSA concentrations, will be closely monitored. There is a risk of overdiagnosis and overtreatment (with substantial human and economic costs) as most of those affected who would not have suffered any harm from their cancer.
8.2.2 Access to appropriate care

The NCD policy advocates equitable access to appropriate preventive and clinical care. Improving geographical access to NCD care may require renovation or construction of new infrastructure. MOH already has a policy which guides the expansion of health facility infrastructure. Preventive and clinical services will be newly established in some geographical areas. This will include screening, vaccination, diagnostic and clinical care services. For example, access to cervical cancer screening through VIA will be improved as new screening sites are established. In other areas, the local health authorities will educate the communities about services that are already available. The WHO Package of Essential NCD Interventions (WHO-PEN) will be used to provide NCDs prevention and control services at primary health care level.42

Specialist services will be provided through the establishment of specialist clinics, specialist outreach care, and medical missions, as currently coordinated by the Institutional Care Division, GHS. Financial access to NCD care will be improved by expanding NHIS subscription and therapeutic measures such as use of generic drugs, fixed-dose combinations and avoiding poly-pharmacy. MOH will periodically review the NHIS essential medicines list. MOH will also consider expanding the coverage NHIS list of benefits package to include medical examination as well as the screening and treatment of common cancers.

8.2.3 Quality of care

The quality of NCD-care will be improved through pre-service, post-graduate and in-service training. Usually, NCD-risk factors such as tobacco, alcohol, obesity are not emphasized during undergraduate training programmes in medicine, nursing, nutrition or pharmacy. MOH will support the introduction and expansion of training programmes in critical areas with shortage of personnel e.g. nutrition, dietetics, smoking cessation, palliative care and counselling. MOH will also advocate for NCD-related topics to be included or emphasized in the curricula of various post-graduate programmes.

Regions will be encouraged to include NCDs in their in-service training programmes and quality assurance programmes. Favourable relationships between health workers and patients will be developed. The national patient charter will be respected. Holistic care will be provided to patients. Physicians, medical assistants and nurses will be trained and encouraged to devote more time to counselling in order to improve adherence and promote healthy behaviours. Up to 93% of patients newly diagnosed with hypertension in Ghana do not comply with treatment. A little over a quarter of patients with breast cancer refuse surgery or abscond from treatment. Training and counselling will therefore seek to address relevant issues to improve treatment compliance.

A multidisciplinary approach to treatment of conditions such as diabetes and cancers will be promoted. This would involve medical and psychosocial care. Besides the national standard treatment guidelines, treatment guidelines for specific diseases will also be produced every five years. Treatment of patients with cardiovascular diseases will be based on a risk assessment at all
levels including the primary care level. Secondary prevention of persons with diabetes, cardiovascular diseases and cancers will be promoted. Lifestyle approaches to treatment of diabetes and prevention of complications will be emphasised. Palliative care will be introduced to improve care for advanced cases of NCDs including cancers.

Periodic assessment of capacity to detect and manage NCDs at health institutions will be conducted throughout the country in order to identify gaps and barriers to be addressed. The provision, maintenance and re-calibration of basic equipment (with support from the Ghana Standards Board), drugs, and logistics will be crucial to improving quality of care.

8.3 Health System Strengthening

8.3.1 Health Information Management

The NCD policy can only be given full effect if the health system as a whole is strengthened with respect to health information management, surveillance, research and human research development. Accurate, complete and timely health information on morbidity and mortality of NCDs will be routinely collected within the context of the District Health Information Management System (DHIMS) and e-Health. DHIMS is coordinated by the Centre for Health Information Management (CHIM), GHS. More detailed data about NCD admissions will be captured. Regions and districts will be encouraged to analyse their NCDs along with NCD risk factors for local decision-making.

Ghana’s cancer registry is still rudimentary. MOH will establish a population-based cancer registration system in the long-term. In the short-to-medium term, facility-based registry will be established in Accra, Kumasi and Tamale to cover the southern, middle and northern zones. The existing cancer registration protocol will be reviewed and implemented. Further details on the cancer registry is available in the national cancer strategic plan 2012-2016.

8.3.2 Surveillance

Periodic surveys of risk factors for chronic NCDs and selected NCDs will be conducted at various levels. Repeat surveys will be conducted in the same group in the same geographical area after 3-5 years in order to track trends in risk factors and to evaluate the impact of interventions. National surveys such as the Demographic and Health Surveys, Core Welfare Indicator Questionnaire Surveys and Ghana Living Standards Surveys organized by the Ghana Statistical Service will provide important information on NCD risk factors. MOH supports current efforts to integrate NCDs into the Integrated Disease Surveillance and Response (IDSR) system. Surveillance systems will assess the capacity of districts and regions to manage, prevent and control NCDs and assess trends and distribution of NCDs and their outcomes.
8.3.3 Research

MOH will develop a national research agenda on NCDs with a focus on operational research. Epidemiological studies, qualitative studies, economics and basic science research will all be encouraged.

8.3.4 Human Resource

The NCD policy prioritizes the local production of health professionals in short supply. They include dieticians, health educators, counsellors, cytologists, laboratory technologists, pathologists and podiatrists. Human resources will be equitably distributed to ensure that most regions can run specialist NCD clinics. Owing to shortage of staff, existing personnel will be trained to multi-task. For instance, Nutrition Technical Officers will be trained to be able to provide dietary advice and a diet plan for unhealthy conditions such as obesity and diabetes. This is because there are many more Nutrition Technical Officers than dieticians. Middle-level personnel such as health promotion officers and technical officers will be trained at the Rural Health Training School in Kintampo.

8.3.5 Partnerships

Within the health sector, there will be integration of services within the same facility and between departments. There will be closer collaboration between the national Tuberculosis Control and Tobacco Control Programmes; diabetes patients will be screened for TB, and patients on diabetogenic antiretroviral drugs will be screened for diabetes.

The partnership between the MOH agencies and the Ghana Education Service (GES) will be improved to foster health promotion, screening, treatment of minor ailments and referrals. Partnership between the MOH and the Ministry of Youth and Sports will be improved in order to reach out-of-school youth and to improve physical activity of the general public.

MOH will advocate for new work-based programmes to be established and for their programmes to be expanded to include physical-activity break-outs, healthy food servings in workers’ canteens, and general healthy behaviour. MOH partnerships with sectors such as Ministry of Employment, Ministry of Trade and Industry, the Association of Ghana Industry and the Chamber of Mines will be improved in this regard.

The central NCD programme will meet periodically with NGOs, health journalists and other stakeholders to plan and review implementation of NCD interventions across the country. Similar periodic meetings will be organized at the regional and district levels. Training programmes will be organized for NGOs, and community organizations in the regions and districts as needed. Regions and districts will continue to engage political, traditional authorities in planning and monitoring of health programmes, including NCDs. The multi-sectoral Steering Committees at the various levels will seek to foster partnerships within and between sectors.
The NCD policy will support new and existing patient support groups as these groups provide a forum for patients and their guardians to socially network. Currently, patient groups are limited to childhood cancers, diabetes and sickle cell disease.

### 8.4 Financing

In view of the current limited funding of NCD Programmes by the international-assistance community, MOH will seek funding from Ghana’s traditional Development Partners and from the private sector. It will also seek funding from Government of Ghana sources and strongly advocate for earmarked and increased allocation to NCDs at all levels. It will advocate for the national health accounts system to regularly track NCD funding.

MOH will review and expand NHIS coverage to include cancer screening programmes and treatment of common cancers besides cervical and breast cancer. Funds obtained from increased taxation on tobacco and alcoholic beverages could be invested in programmes to reduce tobacco use and alcohol misuse. Removing taxes on insulin and NCD devices such as inhalers, peak flow meters, nebulisers, pulse oximeters, BP monitors, etc would help reduce the overall cost of NCD care and save more lives.

At the regional and district level, funds could be drawn from better-resourced programmes such as TB and EPI to support NCD interventions. For example, funds for TB education could be extended to cover education on smoking. TB funds could be used to screen diabetics for tuberculosis. EPI funding or malaria funding could be used to educate the public on childhood asthma or childhood risk factors for NCDs. Integration of services would help reduce costs and improve holistic approach to health care.

### 9 Monitoring and Evaluation

The NCD policy advocates formal evaluation of the NCD control programme periodically, preferably every five years. The evaluation can be undertaken in the year following the Ghana DHS years when national data on risk factors are available. In the intervening years, evaluation of progress in the implementation of NCDs programmes can be undertaken as part of existing evaluation mechanisms such as the independent review of annual health sector performance.

A five year national strategic plan for NCDs 2011-2015 will be developed along with the national NCD policy. The strategic plan will set out strategies for the prevention, management and control of NCDs with defined targets and outputs. Annual operational plans based on the strategic plan will be developed to reflect national priority actions. The NCD programme will be monitored at all levels through routine administrative reports, surveillance reports and special studies.
References