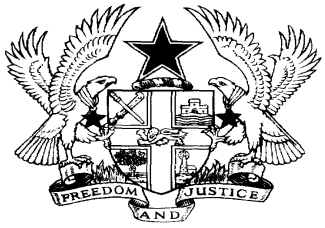

REPUBLIC OF GHANA

MINISTRY OF HEALTH

Strategy for the Management, Prevention and Control of Chronic Non-Communicable Diseases in Ghana 2012-2016

August, 2012

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FOREWORD BY MINISTER OF HEALTH

Many of the determinants of NCDs lie outside of the health sector. A whole-of-government multisectoral response is therefore needed. The other sectors will be brought on board with the health sector playing the lead role.

The strategic plan prioritises health promotion and early detection and health system strengthening. It proposes an integrated approach to implementation of NCD-related programmes.

I thank the World Health Organization and the West Africa Health Organization for their technical and financial contribution to this process. I thank the NCD Technical Working Group, Ghana Health Service and the other 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 strategic plan.

Hon. Alban SK Bagbin (MP)

Minister for Health

LIST OF ACRONYMS

DHS	Demographic and Health Survey
IEC	Information, Education and Communication
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GLSS	Ghana Living Standards Survey
GOG	Government of Ghana
IEC	Information, Education and Communication
KATH	Komfo Anokye Teaching Hospital
KBTH	Korle Bu Teaching Hospital
MDG	Millennium Development Goal
MOH	Ministry of Health
NCD	Non-communicable Diseases
NCDCP	Non-Communicable Disease Control Programme
NGO	Non-Governmental Organization
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGASS	United Nations General Assembly Special Session
WHO	World Health Organization

EXECUTIVE SUMMARY

Non-communicable diseases (NCDs) are now recognized as a development issue. They undermine the attainment of MDGs through both social and biological pathways and establish a vicious cycle with poverty. NCDs account for about 30%-34% of deaths and disability-adjusted life years in Ghana. The prevalence of hypertension has been increasing and in some urban centres, about half of all adults have hypertension. Up to 9% of adults have diabetes. The share of total deaths due to NCDs is expected to exceed that of communicable diseases by 2030. Yet in many countries, NCDs have not been considered a priority.

The international response received a boost with the convening of a UN High Level meeting on NCDs in September 2011. In the Political Declaration emanating from that meeting, Heads of State committed to develop policies and plans to chart the course and map out strategies to effectively tackle NCDs. In Ghana, a multidisciplinary Technical Working Group was constituted late in 2010 to develop a national policy and a national strategic plan for NCDs. The process was coordinated largely by the Noncommunicable Diseases Control Programme. The document draws on some key international documents such as the WHO FCTC, DPAS and the WHO Action Plan 2008-2013. Funding was provided by the Government of Ghana, West African Health Organization and the World Health Organization.

The main strategies to effectively tackle NCDs in Ghana over the period 2012-2016 are as follows:

1. Establish and strengthen coordinating structures to manage the national response to NCDs at all levels
2. Implement cost effective measures to reduce modifiable risk factors for major NCDs
3. Promote early detection of NCDs in persons with and without symptoms of disease
4. Improve access to quality and affordable clinical care including palliative care
5. Strengthen the monitoring of chronic NCDs, their outcomes as well as their risk factors, and the national response to NCDs
6. Strengthen health systems and integrate NCDs into primary care
7. Mobilize increase resources for NCD interventions

Most of these strategies are contained in the list of WHO's Best Buys of cost-effective evidence-

informed interventions which can be implemented over a relatively short-time. Besides cost-effectiveness, other guiding principles are multi-sectoral collaboration, building partnerships, integration, health system strengthening and culturally appropriate technologies.

Various indicators have been defined and targets set for activities relating to the different strategies. The immediate actions required are to disseminate the NCD policy and strategic plans and to establish or strengthen coordinating structures for the national response. A major threat to progress is the adequacy of funds and the political will for implementing needed actions. It will be essential to formally and independently evaluate progress made with the implementation of these interventions after 2013.

TABLE OF CONTENTS

INTRODUCTION

1.1 Burden of Non-communicable Diseases

Chronic noncommunicable diseases (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.[1] WHO defines the scope of NCDs to include oral diseases, sickle-cell disease, violence, injury and disabilities, blindness, deafness, mental, neurological and behavioural disorders, along with stroke, cardiovascular disease; diabetes; cancers and chronic respiratory diseases.[2]

NCDs accounted for 36 million, or 63% of the 57 million global deaths in 2008.[3] The major causes of deaths are due to cardiovascular diseases, diabetes, cancers and chronic respiratory diseases. Nearly 80% of NCD deaths occur in low-and middle-income countries and a quarter are in people younger than 60 years. Except for Africa, NCDs are responsible for the greatest proportion of deaths in all the geographic regions. However, Africa is the Region in which the most rapid increase in the number of NCDs is occurring. In fact, NCDs are projected to almost equal communicable, maternal, perinatal, and nutritional diseases as the most common causes of death in the African Region by 2020.[3] People in low and middle income countries (LMICs) tend to develop NCDs at younger ages, suffer longer, and die sooner than those in high income countries. The proportion of NCD deaths among people under the age of 60 years in LMICs is 29% compared to 13% in high-income countries.[3]

In the Africa Region, NCDs were responsible for 2.86 million (28.3%) of the 10.1 million deaths people in 2008.[4] It is projected deaths from NCDs will rise by 68% and account for 50.1% of the total deaths by the year 2030.

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. Four modifiable risk factors – smoking, physical inactivity, alcohol intake of more than 14 units/week, and fruit and vegetable intake of less than five portions were associated with a substantial increase in the risk of stroke.[5]

Recent studies show that having diabetes is associated with a three times increased risk for

tuberculosis.[6] Conversely, active screening shows that about 1.9% to 35% of tuberculosis patients may have diabetes.[7] It is therefore becoming important to integrate diabetes and TB screening. Tobacco control is another area of NCDs which could be integrated into tuberculosis control. Smoking increases the risk of tuberculosis, regardless of the specific TB outcomes.[8]

Besides sharing common risk factors, some NCDs also increase the risk of other NCDs. Diabetes and cardiovascular disease are well-known co-morbid NCDs. There is also emerging evidence that diabetes increases the risk of certain cancers (e.g. liver, pancreas, colon, rectum, breast) and reduces the risk of prostate cancer.[9]

1.2 Economic costs of non-communicable diseases

The economic impact of noncommunicable diseases goes beyond the costs to health services. Indirect costs such as lost productivity can nearly match or sometimes exceed the direct costs. Contrary to popular belief, NCDs disproportionately affects individuals who are poor thus increasing inequalities. The poor are more vulnerable to NCDs, which maintain them further in poverty. The poor have reduced access to health care and they suffer lost productivity due to long periods of illness, disability and premature death. It is now well agreed that NCDs undermine the attainment of the MDGs, particularly in developing countries.

Suboptimal blood pressure cost US$370 billion globally in 2001, representing about 10% of the world's overall healthcare expenditures.[10] It is estimated that for every 10% rise in mortality from NCDs, the yearly economic growth is reduced by 0.5%.[11] In 2009, the World Economic Forum (WEF) found NCDs to be the fourth most severe global economic risk.[12, 13]

1.3 Socio-demographic Profile of Ghana

Ghana occupies a land area of about 230,000 km^2 and is located on the West African coast eight degrees north of the equator with a 539 km long coastline. 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.

In a national survey in 2005, about 60% of persons in Ghana reported being ill or injured enough to interfere with their usual activities in the two weeks prior to the survey.[14] Of this number, nearly 60% of persons consulted a health practitioner. About 39% of all people who reported ill or suffered from injury consulted a doctor and 13% a nurse. Nearly a third of persons did not consult a health practitioner but chose to purchase medicines for a drug store for their ailment.

1.4 Epidemiology of NCDs in Ghana

In Ghana, the major NCDs are cardiovascular diseases (CVD), endocrine disorders chiefly diabetes, haemoglobinopathies including sickle cell disorders, cancers, chronic respiratory diseases particularly asthma, and injuries. Other special NCDs are either managed under separate programmes in the Ghana Health Service (e.g. tobacco control, oral health, mental health) or do not have any established programme (e.g. hearing impairment).

An estimated 86,200 NCD deaths occur each year in Ghana with 55.5% occurring in persons aged less than 70 years.[3] An estimated 50,000 NCD deaths occur in males and 36,000 deaths occur in females. The proportion of deaths occurring under 70 years is 69% among males and 59% among females. The age standardized NCD death rate is 817 per 100,000. In 2008, NCDs accounted for an estimated 34% deaths and 31% of disease burden in Ghana.[4] CVDs are the leading cause of NCD-deaths with an estimated 35,000 deaths or 15% of the total deaths. NCDs cause an estimated 2.32 million disability-adjusted life years (DALYs) representing 10,500 DALYs lost per 100,000 population.

Data from regional and district institutions (excluding teaching hospitals) representing 42% of total admissions, show that CVDs were leading cause of deaths in 2008. CVDs were responsible for 14% of all institutional deaths in 2008 compared with 9% of deaths in 2003, when they ranked as the fourth commonest cause of institutional deaths (Table 1).[15] In contrast, malaria deaths declined from 17% to 13% during the same period.

Table 1: Leading causes of inpatient deaths in selected hospitals in Ghana, 2003 and 2008

Rank	2003		Rank	2008	
	Cause of Death	Proportional Mortality Rate (%)		Cause of Death	Proportional Mortality Rate (%)
1	Malaria	17.1	2	Malaria	13.4
2	Anaemia	9.6		HIV/AIDS related conditions	7.4
3	Pneumonia	7.2		Anaemia	7.3
4	Cardiovascular diseases	8.9	1	Cardiovascular diseases	14.5
5	Typhoid fever	3.5		Pneumonia	6.2
6	Diarrhoeal diseases	3.5		Septicaemia	5.1
8	Hepatitis	3.2		Meningitis	2.3
9	Meningitis	3		Diarrhoeal diseases	2.3
10	Septicaemia	2.8		All other causes	41.5
	All other causes	41.1		Total	100
	Total	100			

Source: Facts and figures 2005; 2009, CHIM, GHS

Reported cases of new outpatient NCDs have also increased in absolute terms. The reported outpatient hypertension in public and mission facilities other than teaching hospitals increased 11-fold from about 60,000 cases in 1990 to about 700,000 cases in 2010 (Table 2). Reported outpatient diabetes increased five-fold from 25,000 in 2002 to about 120,000 in 2009.

Table 2 Number and proportion of outpatient cases due to selected noncommunicable diseases, 2005-2010

Disease	2005	2006	2007	2008	2009	2010
Hypertension and other heart diseases	265,040	298,304	526,960	338,616	611,736	705,202
Hypertension	249,342	283,591	505,180	321,994	586,960	681,163
Diabetes	39,789	47,464	112,657	66,115	121,931	156,076
Injuries and poisonings	268,519	231,675	276,847	187,190	303,496	317,190
Asthma	23,288	24,877	43,402	30,212	58,317	68,482
Sickle cell disease	10,261	12,260	18,925	10,974	19,017	25,905
All new diseases	8,488,752	10,208,310	12,667,324	10,131,505	16,639,223	19,239,769

Hypertension has consistently ranked among the top ten causes of outpatient morbidity accounting for 3% to 5% of all new outpatient diseases. In the Greater Accra Region, hypertension ranked as the second commonest cause of outpatient morbidity in 2008. Generally, the proportion of new outpatient diseases due to hypertension is highest in the Greater Accra, Eastern and Volta Regions and lowest in the three northern regions.

Population-based studies estimate the prevalence of hypertension at 19% to 48%.[16] The prevalence of hypertension in studies within the Greater Accra Region in 1998-2001 was about 25%-28%. By 2002-2006, the prevalence had increased somewhat to 30%-48%. Nearly half of persons identified with hypertension have evidence of target organ damage, suggesting poor detection and control.[17] Up to 70% of persons detected to have hypertension are unaware they have hypertension, 7%-31% are on treatment and 0%-13% have their blood pressure adequately controlled.

The prevalence of adult diabetes in Accra and Kumasi ranges from 6% to 9%.[18, 19] The prevalence of asthma based on exercise-induced bronchospasm (EIB) among school children aged 9–16 years in and around Kumasi increased from 3.1% to 5.2% from 1993 to 2003. The prevalence of sensitization to at least one allergen based on skin test among the school children increased from 7.6% to 13.6% over the same period.[20]

Consistent with the increasing number of reported NCDs, the prevalence of several risk factors has increased. The proportion of women aged 15-49 years who are overweight or obese increased from 12.8% in 1993 to 30% in 2008.[21] Less than 5% of adults eat adequate amounts of fruits and vegetables. Twenty percent of adults in the Greater Accra Region report heavy alcohol drink in the seven days preceding the survey.[22] About 86% of adults in the Greater Accra Region report low levels of physical activity. It is only with tobacco consumption that the prevalence in adult males reduced from 11% in 2003 to 9% in 2008.

Risk factors have also increased among children. The proportion of children under-five found to be overweight increased from less than 1% in 1988 to about 5% in 2008.[21] In a nationwide school-based survey in 2008, the proportion of adolescents who reported being physically active all seven days for a total of at least 60 minutes per day during the past seven days was 18.7%.[23] eight percent of these adolescents were either overweight or obese – with a further breakdown of

2.4% of boys and 13.9% of girls.

1.5 Psychosocial Impact of NCDs in Ghana

The psychosocial effects of NCDs emanate from the physical challenges of dealing with the ailments, some of which may be disabling (e.g. stroke, blindness, kidney failure, amputation from diabetes foot disease).[24] These physical illnesses may impose psychological problems for example in terms of dealing with pain and its management, or reduced mobility. Cancer typically evokes fear of death in the minds of many people. There is also the disruption in social and economic lives from the chronic nature of the illness, absenteeism from work and economic impact on the household income. NCD patients may have to rely on financial support from their immediate and distant family members. Chronic NCDs such as cancer and diabetes are sometimes stigmatized. Weight loss associated with uncontrolled diabetes may be mistaken for HIV. Obese persons may also be a subject of mockery and bullying with an attendant risk of depression.

1.6 National Response

1.6.1 Establishment of the Noncommunicable Diseases Control Programme

Much of the early national response to NCDs was to provide clinical care. A Non-communicable Diseases Control Programme (NCDCP) was established by the then Ministry of Health in 1992 to respond to the growing burden of non-communicable diseases (NCDs) and injuries. The overall purpose was to design, monitor, and coordinate interventions to reduce the incidence and prevalence of NCDs, prevent disability and deaths from NCDs and to improve the quality of life of persons living with NCDs.

The major NCDs managed by the NCDCP are cardiovascular diseases, cancers, diabetes mellitus, chronic obstructive respiratory diseases and sickle cell disease. The Programme has been directly responsible for coordinating the national response to NCDs, working in partnership with other departments within the health sector, other Ministries, non-governmental organizations (NGOs) and civil society organizations.

Ghana has prepared a number of strategy papers on NCDs. In 1993, the NCDCP described

general strategies for the prevention and control of chronic NCDs as well as disease-specific strategies.[25] The paper proposed a two-phase implementation of the programme, from January 1994 to December 1998 and from January 1999 to December 2004, with specified targets for each phase. The roles and responsibilities of the national, regional, district sub-district and community levels were specified. In 1998, another strategy paper was prepared with the view to document the burden of the problem, identify the risk factors and design the most appropriate intervention packages relevant to the Ghanaian situation.[26]

In March 2002, a technical team prepared a draft national policy framework for NCDs with technical support from WHO but it was not formally adopted.[27] The policy framework covered the justification for NCDs prevention and control, strategic objectives, strategies, capacity building, drugs, health care costs and risk sharing and monitoring and evaluation. In 2006-2007, strategic frameworks for the control of the major NCDs were developed. In 2008, the NCDCP prepared a position paper which assessed the current situation of NCDs in the country, the national response and proposed recommendations for improving the situation. In June 2011, the NCDCP led a team to prepare a national policy to provide the framework for a national NCD strategic plan.

1.6.2 National development and international health policy framework

Two current major health sector wide policy documents support NCD prevention and control. The current national health policy of Ghana 2007 and its supporting Programme of Work POW 2007-2011 generally emphasise health promotion and health lifestyles, healthy environments and the provision of health; reproduction and nutrition services.[28] The policy further identifies six programme areas which will be emphasized and resourced in order to achieve the health sector objectives. Two of these programme areas are promoting good nutrition across the life span; and reducing NCD-related risk factors such as tobacco and alcohol use, lack of exercise, poor eating habits and unsafe driving. Policy measures to be implemented towards achieving the healthy lifestyles and healthy environments include developing standards and programmes for promoting healthy settings, as in homes, schools, workplaces and communities.[29]

The Ghana Shared Growth and Development Agenda (GSGDA), 2010-2013 identifies the increasing prevalence of NCDs with high disability and mortality as one of the persistent policy-related issues that should be addressed. The national agenda has the following health objectives:

- Bridge equity gaps in access to health care and nutrition services
- Improve governance and strengthen efficiency in health service delivery, including medical emergencies
- Improve access to quality maternal and child health services
- Intensify prevention and control of non-communicable and communicable diseases
- Promote healthy lifestyles as well as strengthen mental health service delivery; and
- Make health services youth-friendly at all levels

In addition to the national strategic documents, the World Health Assembly and the African Regional Committee of the WHO have provided several strategic documents relating to the control of specific NCDs or their risk factors since 1998.

At the Regional Consultation on the Prevention and Control of NCDs in Brazzaville, Congo, from 4-6 April 2011 in preparation for the 28-29 April 2011 Moscow Ministerial Meeting on Healthy Lifestyles and NCDs; and the UN High-Level Summit on NCDs in September 2011, Ministers of Health and Heads of Delegation of the WHO African Region, committed to develop integrated national action plans and strengthen institutional capacities for NCD prevention and control.[30] They identified the allocation of financial resources that are commensurate with the burden of NCDs to support NCD primary prevention and case management as a priority.

In the Political Declaration of the UN High-level Meeting of the General Assembly on the Prevention and Control of NCDs in September 2011, Heads of State committed to promote, establish or support and strengthen, by 2013, as appropriate, multisectoral national policies and plans for the prevention and control of NCDs; to strengthen and integrate, as appropriate, NCD policies and programmes into health-planning processes and the national development agenda; and to pursue comprehensive strengthening of health systems that support primary health care, deliver effective, sustainable and coordinated responses, equitable and integrated essential services for addressing NCDs. They also committed to increase and prioritize budgetary allocations for addressing NCDs. [31]

1.7 Challenges

Some of the challenges encountered in the prevention and control of NCDs are as follows:

1. Limited political will - there is limited political interest in NCDs with consequent low priority and low funding. The Development Partners provide little or no funding for the control of NCDs.
2. Low awareness - There is low awareness of NCDs among the general public and even among health care workers. Studies have shown that up to two-thirds of Ghanaians with hypertension are not aware of the condition.
3. Limited access and inequities - There is limited access to screening services, and specialized care. There is currently no organized screening for cancers in the country. Screening and specialised clinics are mostly located in the urban areas than in the rural areas. The limited facilities for screening are due to lack of infrastructure, equipment and personnel. Specialised care is mostly limited to teaching and regional hospitals
4. Quality of care - Effective clinical management is hindered by delay in accurate diagnosis; inadequate knowledge of its management among health care workers; limited programmes for continuing education of health workers; limited number of health professionals such as laboratory technologists, cytologists, pathologists, physicians, counsellors and health educators, etc; lack of treatment protocols; poor compliance with treatment; poor follow-up care, and limited number of centres providing specialised care.
5. Limited practice of palliative care - Clinical management is also deficient in the use of opiates for pain relief for palliative care. Management is often biomedical in focus without attention to the psychosocial dimensions of NCDs.
6. Limited funding - Funding for NCD management, prevention and care programmes is low, largely because of competing priorities and little or no interest of development partners in NCD.
7. Some risk factors worsening - The prevalence of obesity in Ghana has been increasing over the years. The prevalence of overweight in women was 9.3% in 1993 and increased to 20.7% in 2008. Obesity also increased from 3.4% in 1993 to 9.3% in 2008. Obesity in children has also been increasing.
8. Weak surveillance and research - Surveillance on NCDs is weak. Health facilities reporting on NCDs are mostly not complete. The Integrated Disease Surveillance and response (IDSR) focuses on communicable diseases although there is now an attempt to include some NCDs in the IDSR. There is no systematic risk factor surveillance.

2 NATIONAL NON-COMMUNICABLE DISEASES CONTROL AND PREVENTION PROGRAMMES AND STRATEGIES

2.1 Goals and objectives

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 consequence. This will involve reducing avoidable morbidity and premature mortality related to major NCDs

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 objectives are to reduce the incidence of chronic NCDs; to reduce exposure to the unhealthy lifestyles that contribute to NCDs; to reduce morbidity associated with NCDs; and to improve the overall quality of life in persons with NCDs

2.2 Guiding principles

The guiding principles for the development and implementation of NCD strategy are as follows:

- 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)[32], 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, opinion leaders and lay communities 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

2.3 Strategies

In line with the NCD policy, the following strategies will be pursued:

1. Establishing and strengthening multisectoral structures and mechanisms for improving the coordination and governance of NCD programmes

2. Reducing uptake and practice of unhealthy lifestyles relating tobacco, harmful alcohol use, unhealthy diet and physical activity
3. Promoting immunization against liver cancer and possibly cervical cancer
4. Improving early detection of NCDs in persons who already have the disease and identifying persons at high risk of developing NCDs
5. Improving access to clinical care and improving clinical outcomes
6. Strengthening health systems to support primary health care, deliver effective, sustainable and to support coordinated responses and integrated essential services for addressing NCDs
7. Strengthening monitoring and evaluation systems for NCDs
8. Improving the financing of NCD interventions

Ghana Shared Growth and Development Agenda 2010-2013 highlights the following strategies for NCD prevention and control:

- Establish screening and management programmes (for diabetes, hypertension, cancers, sickle cell, and asthma)
- Develop capacity for research into communicable and NCDs and adolescent health programming,
- Strengthen co-ordination and accountability of agencies involved in attaining goal 6 of the MDGs
- Implement national behavioural change communication strategy for lifestyles and
- Integrate healthy lifestyles and regenerative health into curricula of schools and health institutions

2.3.1 Governance and Coordination

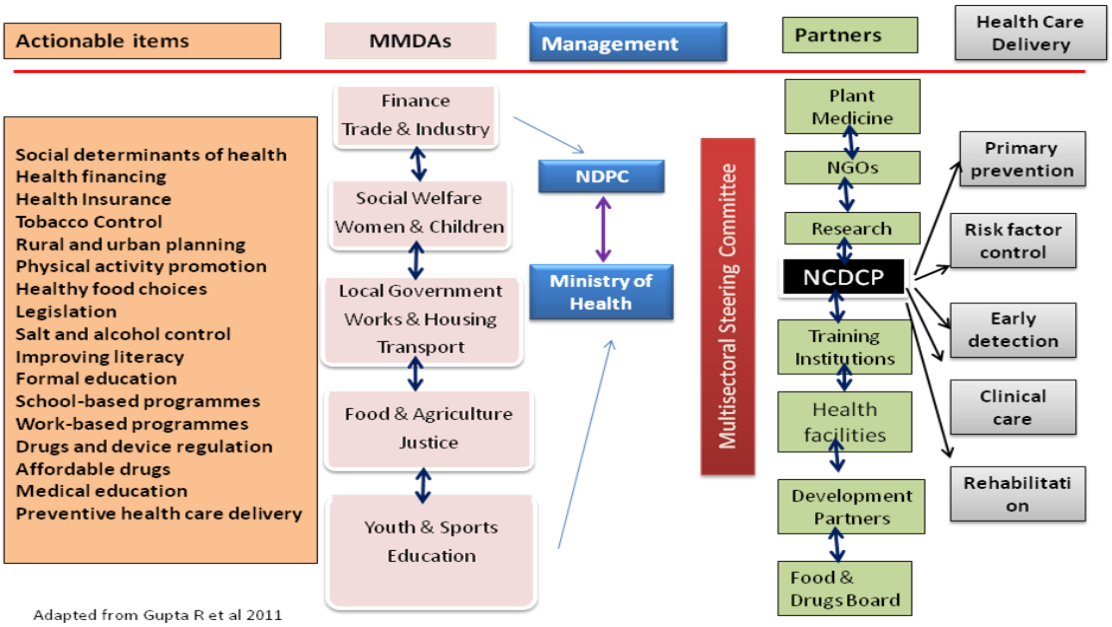
2.3.1.1 National Multisectoral Steering Committee on NCD

In order to ensure that NCDs are placed high on the national agenda and to highlight their negative impact on the attainment of MDGs, a multisectoral Steering Committee on NCDs will be established, as is in Togo, Tanzania and Kenya. The members of the Steering Committees would come from various sectors of the economy including Ministries, Departments and Agencies (MDAs), private sector, NGOs, research community, training institutions, civil society

organisations and the media (Fig 1). The Committee will review national plans to tackle NCDs and assess progress being made towards achieving the set objectives. It will advocate the preparation of operation plans by each sector to reflect how NCDs impacts on that sector as well as their activities to deal with the diseases. It will advocate the appointment of NCD Liaison Officers within the various Ministries as appropriate.

In the short-to-medium term, MOH will be responsible for coordinating the meetings and activities of the National Steering Committee on NCDs. The Committee shall periodically update the National Development and Planning Commission (NDPC) on its programmes and achievements.

Fig. 1: Multisectoral Coordinating Mechanism for NCDs



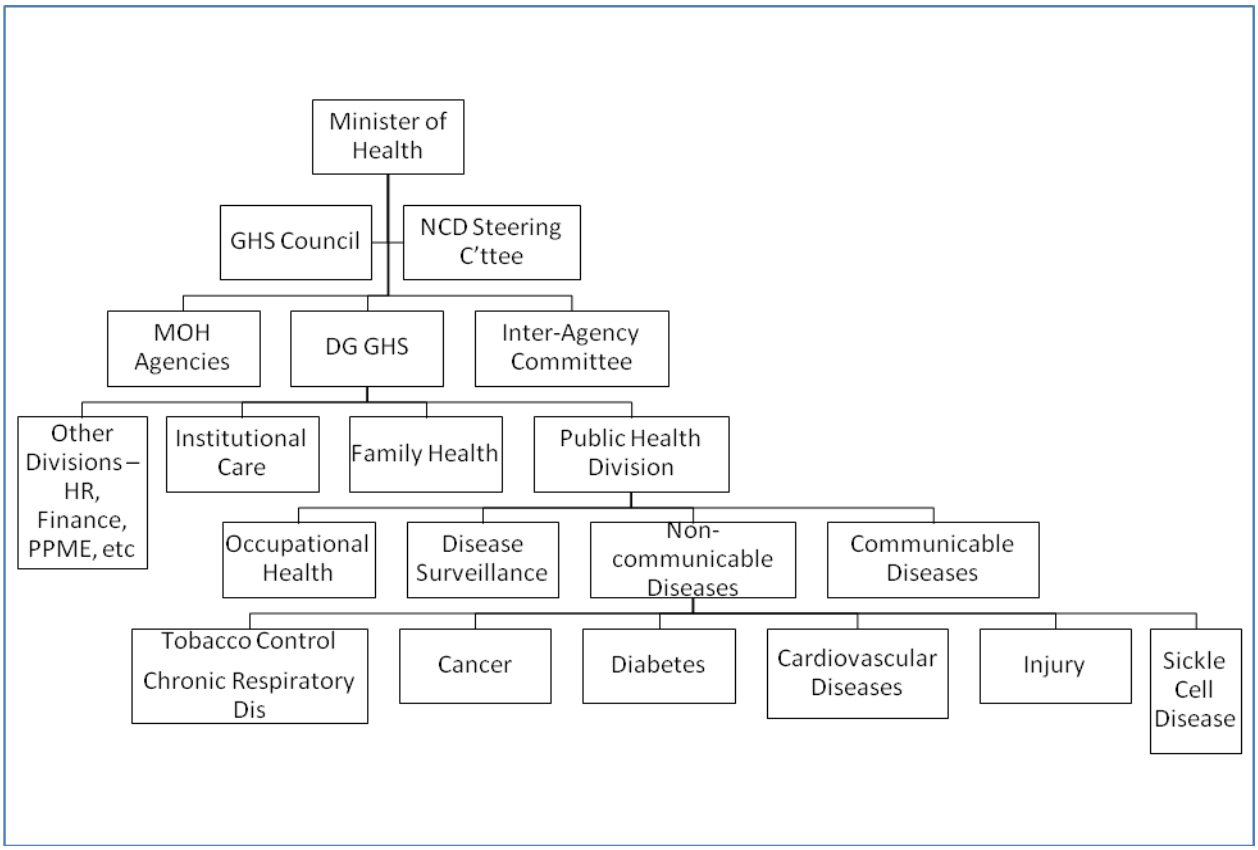
The NCDCP will be responsible for the day-to-day planning, coordination and management of NCD programmes (Fig 1). NCD Focal Persons will be appointed at the regional and district levels to plan and coordinate NCD programmes at their respective levels. Intersectoral collaboration will be actively sought and utilized in programme planning and implementation.

MOH will have the primary responsibility for health care delivery. Success in primary prevention, early detection, clinical care, palliative care and rehabilitation can only be attained through the active participation of relevant stakeholders.

2.3.1.2 Elevation of the NCD Programme within GHS

To reflect the re-prioritization of NCDs and to attract more resources, the status of the NCD Control Programme within the GHS will be elevated to that of a Department under the Public Health Division (Fig 2). Current sub-programmes such as cancers, sickle cell disease, cardiovascular diseases will then be elevated into full-fledged programmes at par with programmes such as the Buruli Ulcer, Yaws, and Malaria Control Programmes. Stand alone programmes such as tobacco control will be integrated into the NCD Control Programme.

Fig 2: Proposed Restructuring of the NCD Control Programme with the Ghana Health Service



The Regenerative Health and Nutrition Programme will be integrated into the Ghana Health Service under the Nutrition and Health Promotion Programmes.

2.3.2 Primary Prevention

2.3.2.1 Strengthening of regulatory bodies

Regulatory bodies such as the Food and Drugs Board and the Traditional Medicines Council will be strengthened to prevent exposure to unhealthy foods, herbal medicines and unwholesome products. The Government of Ghana also commits its obligations under the various international health resolutions, declarations and communiqués.

Legislation will be enacted, strengthened or enforced in areas such as tobacco control, harmful alcohol use, food standards, food labelling, advertising of sweetened drinks, non-alcoholic and alcoholic beverages, traditional medicines, and tax subsidies to make medicines affordable. Fiscal measures such as reduced taxes on healthier foods (e.g. low fat products) will be applied to facilitate healthier choices.

The Government of Ghana will consider legislation for a proportion of taxes and levies obtained from alcohol and cigarettes to be channelled into NCD control – chiefly tobacco and alcohol control. There will be advocacy for Ghana's Public Health Bill which integrates all existing laws relevant to public health including tobacco, environmental sanitation, food and drugs to be passed by the Parliament of Ghana.

2.3.2.2 Diet

The priority measures to achieve healthy diets will include health promotion to increase awareness about healthy diet; increase the availability of healthier foods; use pricing controls to discourage consumption of unhealthy foods; regulate advertising of unhealthy foods and non-alcoholic beverages particularly to children; enact legislation for manufacturers to display food content labels and to manufacture foods that meet defined standards. The composition of various local foods will be studied and published. Guidelines of healthy eating and healthy foods will be published. There will be advocacy to include healthy eating into curricula of various training institutions from the primary level upwards. The daily dietary recommendations for the average adult will be translated into local handy measures based on the following targets:

- Less than 7% of calories should come from saturated fatty acids and less than 1% from trans fatty acids
- Daily cholesterol intake should be less than 300 mg
- Total fat intake should not exceed 20% to 35% of calories

The key dietary messages will be to encourage the public to use up at least as many calories as are consumed, eat a variety of nutritious foods from all the food groups; and to limit foods and beverages that are high in calories but low in nutrients. The general public will be educated to limit the intake of foods containing trans fats, cholesterol, added sugars, salt, and alcohol. They will be advised to consume fish, especially oily fish, at least twice a week.

Ghana adopts the WHO recommendation of a daily consumption of at least five servings of a variety of fruit and vegetables daily. Public will be educated to consume whole-grain, high-fibre foods, reduce intake of foods high in saturated fatty acids and to reduce consumption of red meat.

Government of Ghana will work to reduce the average daily consumption of salt from the current level of around 9 g daily to WHO recommended daily level of 5 g per day or less by the year 2025. Foods containing hidden salts such as processed foods, fast foods, takeaway, restaurant food will be targeted through legislation and education. The food industry will be compelled by law to slowly reduce salt content of all foods by 40% over the next 5-7 years. Most of salt in foods in Ghana is added at the time of cooking (including the use of stock cubes, soy sauce and spices) or added at table. Hence, education will involve target essentially women, food caterers, food vendors, market women's associations, etc. Even small reductions of salt intake have been shown to be beneficial. A consultative meeting will be organized to discuss and to draw up a plan to reduce salt consumption for implementation.

The Government will work with industry through negotiation and legislation to reduce the levels of industrially-produced trans fatty acids (IPTFAs) to less than 2% of the fats and oils used in food manufacturing and cooking.

The Government's school feeding programme will be supervised by a dietician. Balanced diet prepared under hygienic conditions will be provided. Fruits and vegetables would be an important part of the diet.

MOH will advocate for students in boarding schools to be provided with a balanced diet. Fruits and vegetables should be included in the diet in all boarding schools and students educated on the importance of eating fruits and vegetables even at home. Sale of fizzy drinks like soda will be replaced with fruits like banana, oranges and peeled pineapples in school canteen and

compounds. Students will be discouraged from taking sweetened drinks like Coca-Cola and replace them with fruits. Students will be educated on the need to limit the intake of fats, sugar and salt. Parents would be involved in planning menu for boarding schools.

Lifestyle interventions that have been found to reduce blood pressure include improved diet, aerobic exercise, alcohol and sodium restriction, and fish oil supplements.[34] In contrast, there is no evidence that potassium, magnesium or calcium supplements exert any important effects on blood pressure.

2.3.2.3 Physical activity

Promoting adequate levels of physical activity requires providing an enabling physical environment for active commuting and recreation; safe transport; public education and implementing school-based and work-based interventions.

Creating a safe enabling physical environment will involve collaboration between sectors such as transport, sports, education, environment, works and housing, urban design, roads and highways, employment and local government. These sectors as well as the media and civil society organizations will be engaged to develop a national physical activity programme. A life-course approach will be adopted to address the needs of children, families, adults and the elderly.

Public education will encourage moderate-intensity physical activity such as brisk walking for at least thirty minutes on most days of the week. Such moderate-intensity physical activity can be incorporated into normal physical activities at home, at work and during recreation. The recent finding that half of this amount (15 mins per day for 6 days a week) could reduce deaths from all causes by 14%, cancer deaths by 10% and cardiovascular deaths by 20%, means that getting the public to engage in low volume of physical activity is beneficial when compared to sedentary lifestyles.[35]

Based on the finding that for every two hours of television watched daily, the risk of diabetes increases by 20%, the risk of cardiovascular disease increases by 15%, and the risk of all-cause mortality increases by 13%, the Ministry of Health recommends that watching television is reduced to three hours daily.[36] Health practitioners from the primary care level upwards wil be trained to provide opportunistic counselling on physical activity for fitness and weight

management. Opinion leaders and influential persons in communities will serve as role models who use bicycles and walk more often to work and social events.

Consistent with the School Education Policy of the Ghana Education Service, physical activity involving indoor and outdoor games will be encouraged. Mechanisms will be developed by the Ministry of Education, Ministry of Youth and Sports and MOH to monitor physical education programmes in schools. MOH advocates for community-wide sports activities to be organized and the provision of adequate play spaces for children and young people. Various NGOs and the private sector will be engaged in training, education and evaluation of physical activity programmes.

Workplace programmes will involve educational talks on physical activity, and provide facilities such as gyms and recreational centres that encourage physical activity. Employers will be encouraged to provide incentives for active commuting to work or by public transport rather than by car.

2.3.2.4 Tobacco

The main strategies will be to pass the current tobacco bill; enforce provisions of the Framework Convention on Tobacco Control (FCTC); undertake public education to warn persons about the dangers of smoking; raise taxes on tobacco; advocate ban of smoking in public places; enforce advertising bans and train health practitioners in tobacco cessation. The national Tobacco Control Programme will be strengthened and integrated into the national NCD control programme.

Media campaigns on the dangers of tobacco use will be pursued. The draft action plan on tobacco control along with a communication plan will be finalized and dissemination for implementation. Training manuals on counselling for tobacco cessation will be developed or finalized.

The Food & Drugs Board will continue to supervise the implementation of some of the FCTC provisions including the registration of tobacco companies and tobacco products; the introduction of an import permit regime for tobacco products; prohibition of direct and indirect advertisements by tobacco companies; and the introduction of bold textual warning labels on

tobacco product packs.

2.3.2.5 Alcohol

The national alcohol policy will be finalized, published and disseminated.[37] The alcohol policy advocates increasing alcohol taxes, restricting access to alcoholic beverages (any drink that contains more than 0.5% ethyl alcohol) and restrictions on advertising. As with tobacco, increasing prices is the most effective measure and has the biggest effect on young people. In Ghana, the change from specific to ad-valorem excise taxes on tobacco, alcoholic and non-alcoholic beverages with a reduction in the rate by 2.5% led increased revenue in 2011. As the Government considers a further decrease in the excise tax rate in its budget statement of 2012, MOH will advocate for the impact of such action on alcohol consumption to be examined. A proportion of revenue obtained from taxation should be channelled into alcohol and tobacco control.

According to the national alcohol policy, alcoholic beverage cannot be sold to persons less than 18 years. Persons younger than 18 years cannot consume alcohol in public. Drink driving measures will be enforced by the law-enforcement agencies. It is expected that the provisions in the policy will be backed by legislation over the next few years.

Public education campaigns on hazardous and harmful alcoholic consumption will be intensified at all levels. Curricula of basic and secondary education will include the harmful effects on alcohol intake. Alcoholic disorders will be treated at health facilities. Training on counselling on harmful alcohol use will be provided.

2.3.2.6 Health education and promotion

Health promotion would aim to empower people to increase control over the determinants of health and thereby improve their health. Health education is a process of assisting individuals acting separately or collectively to make informed decisions on matters affecting their health as individuals, families and communities.

Public education would be in the form of individual, group and population approaches. Individual approach would be in the form of counselling, health risk assessment and dietary

assessment. Group approaches would also involve lectures, seminars, skill training, peer education, role play and simulation. Population approaches would include mass media campaigns, social marketing and advertisement.

For primary prevention, health education will address the whole population as well as specific groups at special risk such as young persons, children of persons with the risk factors (e.g. tobacco users, alcohol abusers, obese persons) and sedentary workers.

Educational materials will be developed and distributed to the public and private sector. Innovative educational approaches such as drama, advertisements, text messages will be considered. Materials will be culturally-appropriate and so local measures will be used to translate what constitutes a fruit or vegetable serving, a standard alcohol drink, and the recommended daily limit for salt. For example, one 'standard drink' is any drink containing 10 grams of alcohol. Using this definition, one can of beer that contains 5% alcohol by volume is roughly equivalent to 1.5 standard drinks.

One of the objectives of the School Health Education Programme (SHEP) to 'bring health education and related health services to the doorsteps of school children for early detection of defects and disability for prompt referral and management'.[38] Lifestyle interventions, particularly healthy diets, physical activity, tobacco use and alcohol misuse will be incorporated into the school health education programmes at the JHS and SHS levels. Students examined and found to have obesity or found to use tobacco or alcohol will be appropriately counselled on weight control measures.

2.3.2.7 Vaccination

Among the vaccine preventable NCDs are liver and cervical cancer. MOH will strive to increase the coverage of hepatitis B for infants. Adults are high risk such as health workers, laboratory workers will be vaccinated against hepatitis B.

MOH will consider introducing human papilloma virus (HPV) vaccine into its immunization schedule when results of on-going multi-country trials (Ghana being one of the sites) become available and when the price of the vaccine drops substantially from the current level of about US$120 per dose.

2.3.3 Early detection

Early detection strategy is targeted towards persons with NCD symptoms and for persons with no NCD symptoms but who are at risk of NCDs. In the short-term, priority will be put on getting persons already with disease to report to health facilities early. To achieve this, the general public will be educated on the early warning signs of various NCDs. Education will be provided at churches, mosques and to traditional herbal practitioners so that disease persons will self-report early or alternate care providers will refer them early. Once an encounter is made with the health facility, early diagnosis will be aimed for through improved diagnostic capacity at all levels.

Within health facilities, wellness centres will be established to screen persons for overweight, raised blood pressure, raised blood glucose, raised cholesterol and triglycerides. Adult aged 25 years and older would routinely their blood pressure checked. Data collection forms and registers in health facilities will be designed to capture risk factors such as obesity and overweight. Workplace programmes for HIV will be expanded to cover NCDs. 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. One month will be designated as Blood Pressure Awareness Month during which "Know Your Blood Pressure" campaigns will be launched.

Asymptomatic persons will be screened to detect early precursors of disease to allow early referral and treatment. Women aged 20 years and above will be taught to perform self-breast examination monthly. Women attending health facilities will be opportunistically screened for breast and cervical cancer as detailed out in the National Cancer Strategic Plan 2012-2016. There will be biennial clinical breast examination in asymptomatic women and prompt treatment at all stages will be provided through early referral. Women aged 35 years and older will undergoing visual inspection of the cervix with acetic acid (VIA) or Lugol's iodine (VILI) at designated centres. Cervical cancer screening using VIA will be established in all regional hospitals and cryotherapy for positive lesions provided in zonal centres. VIA services will be integrated into family planning services and HIV testing and counselling services. Clinical breast examination and VIA services will be integrated. Colposcopes and other equipment will

be provided in the regional hospitals. Cytologist and pathologists will be posted to regional hospitals to reduce turnaround time for biopsy. Screening using HPV tests will be introduced as they become cheaper and have been piloted in selected centres. Women's groups will be sensitized about the availability of breast cancer and cervical cancer screening services. Men aged 45 years and older may be screened for prostate cancer. MOH would advocate for the inclusion of screening for cancers in the national health insurance.

In order to improve case detection, diabetic patients will be screened for tuberculosis. Conversely, tuberculosis patients will be screened for diabetes. Patients on certain antiretroviral drugs will be screened for diabetes.

2.3.4 Clinical care

2.3.4.1 Improving Access to Health Care Provision

Access to care will be improved through education of public on availability of services, infrastructural expansion, increasing the NHIS subscription base and local training of increasing number of service providers. Training facilities for middle-level practitioners as well as nursing and medical assistants will be increased. The MOH will establish screening (e.g. VIA services), vaccination, diagnostic and clinical care services in the country to improve access across the country at all regional centres. MOH will advocate for expansion of the coverage of national health insurance list of benefits package to include medical examination, screening and treatment of common cancers. Access to healthcare will also be improved through medical outreach and specialised clinic e.g. diabetes clinic.

2.3.4.2 Improving quality of care

The quality of NCD-care would be improved through pre-service and in-service training. There will be increased focus on NCD-risk factors such as tobacco, alcohol and obesity during the training programmes in medicine, nursing, nutrition or pharmacy. Clinicians will be periodically updated on the current approaches to management of NCDs. 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. Job AIDS such as algorithms will be developed to help in clinical care. Specialised clinics will be established in all regional hospitals.

The capacity of district hospitals will be strengthened to provide basic care for NCD patients. The national patient charter would be respected. Holistic medical care will be provided to patients. This means that, for example, an obese patient who reports to a health facility with malaria will receive counselling and care for both conditions and not just for the malaria. Doctors have been found to play an important role in helping to change the health behaviour of patients including smoking cessation.[39-41]

There would be training for health professionals to provide counselling for NCD patients to improve treatment compliance and also empower patients for self management. There will be counselling services for at risk groups such as hypertensives, diabetic patients and the need for regular screening. Counselling services will also include counselling on diet and foot care.

The Government of Ghana will ensure equitable access to essential medicines and affordable technologies for NCDs. Laboratory, imaging and other diagnostic services such as electrocardiography (ECG), echocardiography, ultrasonography, magnetic resonance imaging (MRI), computerized tomography scans will be provided in an increasing number of hospitals to improve quality of care. A multidisciplinary approach to treatment of conditions such as diabetes and cancers would be promoted. This will involve medical and psychosocial care. At regional and teaching hospitals, diabetes care team would be physician specialist (if available), trained medical officers, nurse educator, dietician, and (nurse) ophthalmologist.

Besides the national standard treatment guidelines[42], treatment guidelines for specific diseases would also be produced every 3-5 years. Treatment of patients with cardiovascular diseases would be based on a risk assessment at all levels.[43] Secondary prevention of persons with diabetes, cardiovascular diseases and cancers would be promoted. Lifestyle approaches to treatment of diabetes and prevention of complications will be emphasized.

Clinicians will be encouraged to adhere to existing guidelines such as the standard treatment guidelines which will be widely disseminated. Where guidelines for specific disease areas are not available, those from reputable bodies such as the British Hypertension Guideline and International Diabetic Federation (IDF) guideline would be used. There will be training on WHO's Package of Essential Noncommunicable Disease (WHO-PEN) interventions tools to improve primary care.

Periodic assessment of capacity to detect and manage NCDs at health institutions would be conducted throughout the country in order to identify gaps and barriers to be addressed. The provision and maintenance of basic equipment, drugs, and logistics will be crucial to improve quality of care. In particular, BP monitors suitable for measuring the blood pressure of children will be provided (at least) in all regional and teaching hospitals.

2.3.5 Rehabilitation and Palliative Care

Palliative care would be introduced to improve care for advanced cases of NCDs including cancers. The use of oral morphine for management of pain will be promoted. MOH will collaborate with hospitals, private institutions and NGOs to provide rehabilitation services such as reconstructive surgery, prosthesis, hearing and visual aids or devices, and physiotherapy in selected hospitals.

2.3.6 Health System Strengthening

MOH will strengthen national health systems for the prevention and control of NCDs by addressing gaps in all six health system components: finance, governance, health workforce, health information, essential medicines and technologies and service delivery:

2.3.6.1 Health management information systems (HMIS)

Routine service data from private and public health institutions in Ghana are managed by the Centre for Health Information Management (CHIM) of the Policy, Planning, Monitoring and Evaluation Division (PPMED). However, morbidity and mortality data from the teaching hospitals are often not captured. MOH will strengthen the capacity of CHIM to collate data from all institutions. NCD morbidity data will be incorporated into the new version of the District Health Information Management System (DHIMS-2) currently being developed.

Health information officers will be trained and the data capture system configured to detect possible errors e.g. diagnosis of hypertension in infants. Training in the International Classification of Diseases (ICD) will enable multiple diagnoses in the same patient to be captured, for example a diabetic patient with hypertension and raised cholesterol. The data

management system will be improved to enable severity of NCDs to be determined as in for example, when diabetes, hypertension or sickle cell disease present as emergencies. Disease registries e.g. cancer, trauma, diabetes will be established in selected hospitals. A stakeholders' meeting will be held to review how data on NCDs including cancer registration could be improved in terms of accuracy, completeness and timeliness.

2.3.6.2 Surveillance of risk factors for chronic NCDs

The capacity for NCD surveillance will be strengthened. The Ghana Demographic and Health Survey (GDHS) collects nationwide data on some NCD risk factors – tobacco, alcohol, physical activity, fruits and vegetable consumption and (for women only) body mass index. The next GDHS is due in 2013. Risk factors for chronic NCDs, blood pressure and biochemical measurements (blood glucose, cholesterol and triglycerides) will be monitored in a national survey every five years – preferably in the intervening years between the GDHSs.

The other component of surveillance is monitoring outcomes including morbidity and cause-specific mortality. This component has been addressed under the routine HMIS. In 2003, Ghana adopted Africa Regional Office of WHO's IDSR Strategy which covered 23 priority diseases which were all communicable diseases. In 2010, the second edition of the IDSR was expanded to cover 44 diseases including diabetes, hypertension, road traffic accidents and mental illness (epilepsy). Unlike the routine HMIS data, IDSR data is managed by the Disease Surveillance Department and are more timely.

A third component of surveillance which will be strengthened is the monitoring of health system responses, including the national capacity to prevent NCDs in terms of plans, infrastructure, human resources and access to essential health care including medicines at all levels. A survey on the capacity to manage and prevent NCDs will be conducted in all regions and a representative sample of districts.

2.3.6.3 Research

MOH will initiate, conduct, coordinate and provide technical assistance in NCD-related research. It will organize a stakeholders meeting to develop a national NCD research agendum. Research findings will be implemented in an attempt to bridge the gap between knowledge versus policy

and practice.

Areas in which research priorities on NCDs will focus will include epidemiology, disease mechanisms and host response, social research, health financing, health systems support and optimal delivery of interventions. Studies on food quality; diet; knowledge, attitudes and behaviour; traditional medicines; cost-effectiveness of preventive and clinical interventions; health financing; and strategies to integrate NCDs into other disease programmes are generally lacking.

2.3.7 Social Support Systems and Partnerships

2.3.7.1 Support the Establishment of Patient Support Groups

Patient support groups are currently available for cancers and sickle cell disease. MOH will encourage the formation of more patients support groups throughout the country to offer peer support and to provide a channel for education.

2.3.7.2 Improving Public Private Partnerships

MOH will work with encourage the formation of networks involving NGOs working in NCDs to facilitate coordination. MOH will build on partnerships with NGOs, civil society organizations (CSOs), academic and research institutions, professional organizations, development partners and the media. As an example, MOH has commissioned the Sickle Cell Foundation of Ghana to undertake neonatal screening for sickle cell disease starting in 2011. CSOs will be expected to play an advocacy role to influence government's commitment to the national response and to monitor progress in achieving set objectives.

2.3.8 NCD Financing Options

MOH will increase resources allocated to NCD prevention and control. Earmarked funds will be specifically allocated to NCDs. The Government of Ghana will explore innovative financing options to fund NCD interventions. Options suggested by WHO includes special levies on profitable companies, Diaspora bonds, mobile phone voluntary solidarity contributions, digital taxes, tobacco excise taxes, and excise tax on unhealthy food.

The Government of Ghana will consider expanding the NHIS benefits package to include screening for NCDs in healthy people and screening for cancers. Resources will be mobilized from the private sector to support screening campaigns.

2.4 Monitoring and Evaluation

The strategic objectives will be operationalized into a plan of action covering the period 2010-2013. A set of indicators will be developed to monitor the national response to NCDs. The focus of monitoring will be on process and output indicators as several years are required to observe an impact on morbidity reduction. It is expected that the national response will be formally evaluated by an independent team every five years and recommendations implemented as soon as possible.

The priority actions to be implemented over the period 2010-2013 will include the following:

1. Establish and strengthen coordinating structures to manage the national response to NCDs at all levels
2. Implement cost effective measures to reduce modifiable risk factors for major NCDs
3. Promote early detection of NCDs in persons with and without symptoms of disease
4. Improve access to quality and affordable clinical care including palliative care
5. Strengthen the monitoring of chronic NCDs, their outcomes as well as their risk factors, and the national response to NCDs
6. Strengthen health systems and integrate NCDs into primary care
7. Mobilize increase resources for NCD interventions

3 PLAN OF ACTION

The strategic objectives of the NCD Programme are detailed out in the plan of action which seeks to improve the governance and coordination of NCDs, improve awareness of NCDs, improve early detection of the disease, improve the quality of clinical care and to improve the quality of life of NCD patients.

Table 3: Activities and targets for the prevention and control of NCDs in Ghana

1. Strategic Objective 1: To improve governance and coordination of NCDs

Key Activities /Interventions	Indicators	Timeline					Responsible Agency
		2012	2013	2014	2015	2016	
Appoint Regional and District Focal Persons for NCD	% of Regions with NCD Focal Persons	15%	20%	20%	100%	100%	GHS
	% Districts with NCD focal persons	0	0	0%	50%	100%	GHS
Quarterly meetings between NCDCP and regional and district teams	Number of meetings	0	0	0	3	4	GHS
Distribute and implement strategic framework on NCD	% of Regional and District Health Directorates with NCD Strategic Framework document	0	0	0	100%	100%	GHS
Elevate status of NCD Control Programme within GHS	Meetings of GHS Council to review and approve organogram of Public Health Division, GHS	-	-	100%	100%	100%	GHS
	Appointment of Programme Managers for NCD Control Dept.	1	3	6	6	6	GHS
To establish a multisectoral Steering Committee on NCDs which meets 2-4 times yearly	Number of meetings	0	0	2	3	4	MOH
To sensitize and update NCD-related NGOs on current burden and policies	Number of meetings	0	0	2	2	3	GHS

Key Activities /Interventions	Indicators	Timeline					Responsible Agency
		2012	2013	2014	2015	2016	
Contribute to the development, production and distribution of a national alcohol policy	Number of meetings of TWG; % districts with policy document	-	-	Production and launching of report	50% of districts	100% of districts	GHS
Assess national capacity to manage NCDs	Surveys every 3-5 years	1 survey	-	2 survey		3 survey -	GHS

2. Strategic Objective 2: To improve awareness and knowledge of NCDs

Key Activities /Interventions	Indicators	Timeline					Responsible Agency
		2012	2013	2014	2015	2016	
Advocacy and public education on NCDs through radio & tv and print media	% of population with adequate knowledge of NCD; Nbr of radio, TV programmes held monthly; nbr of feature articles in print media	-	15%	25%	50%	100%	GHS
Celebration of international events - World Cancer Day (Feb), Africa Healthy Lifestyles Day (Feb), World No Tobacco Day (May), Diabetes Awareness Month (Aug), World Heart Day (Sept), World Diabetes Day (Nov), National Cancer Awareness Month (Oct), etc	Nbr of events celebrated	100%	100%	100%	100%	100%	GHS
Development of health education materials on NCD	No of IEC materials distributed	Materials on 4 different topics	Materials on 5 different topics	Materials on 5 different topics	Materials on 7 different topics	70% of health facilities distribute or display all IEC material on NCDs	GHS
Educate primary and junior secondary schools on NCDs	% of primary and junior secondary schools educated on NCDs	-	10%	20%	35%	50%	GHS/ GES
To educate health journalists and other media persons on NCDs	Number of educational meetings with media persons	-	1	1	2	2	GHS
To educate high-risk sedentary groups (e.g. Market women) on NCDs	Number of market women associations educated on NCDs	-	2	5	10	10	GHS/ NGOS

Key Activities /Interventions	Indicators	Timeline					Responsible Agency
		2012	2013	2014	2015	2016	
To sensitize Development Partners on NCDs	Number of presentations at Health Summit (MOH) on NCDs	-	1	1	1	1	GHS
To sensitize Members of Parliament on NCDs	Number of presentations on NCDs to Parliamentary Select Committee on Health	-	1	1	1	1	GHS

3. **Strategic Objective 3: To reduce exposure to modifiable risk factors for chronic NCDs**

4. **Strategic Objective 3.1.1: To reduce the prevalence of the use of tobacco products among men from 9.6% in 2008 to 7.0% by 2013**
5. **Strategic Objective 3.1.2: Reduction in reported smoking of cigarettes by young boys in SHS1-3 during the past 30 days from 1.9% in 2008 to 1.0% by 2013**

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Advocate for passage of Ghana Tobacco Bill or Public Health Bill	Report of passage of bill into law	1	-	-	-	-	MOH/CSO
Monitor the implementation of Ghana Tobacco Bill	Number of public institutions with smoke-free environments	-	5%	10%	15%	20%	GHS
Promote smoking ban in public places	Number of smoke-free public places	-	-	-	0%	0%	FDB
Ban tobacco advertising in the media	% of adverts in the media on tobacco	-	-	-	0%	0%	FDB
Advocate for display of warning labels on cigarette packs	% of cigarette packs with bold front-face warning labels	-	-	70%	100%	100%	FBD
Prohibit sale of tobacco to minors	% minors reporting purchase of tobacco products	-			0%	0%	FDB
Finalize and distribute smoking cessation guidelines	Number of guidelines distributed	-	-	-			GHS
Include nicotine replacement products on list of essential medicines	List of essential medicines	-	-	-			GHS
Finalize tobacco action plan	Meetings to review tobacco action plan	-	-	-	-	-	GHS

6. **Strategic objective 3.2: To reduce the percentage of adults who drank alcohol 4 or more times in past 7 days from 18.4% in men and 7.4% in women in 2008 to 16% and 6% respectively by 2013**

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Undertake public education campaigns on alcohol misuse	Number of public education campaigns	-	-	20	30	30	GHS
Finalize the health-sector led alcohol policy	Meetings on alcohol policy	-	-				MOH
Implement provisions of the alcohol policy	FDB monitoring report on alcohol control	-	-				GHS
Investigate alcohol levels of drivers admitted to accident & emergency facilities	% of drivers admitted to A&E centres breathalyzed	-	-	20%	40%	70%	GPS/MOH
Train health workers on tobacco and alcohol cessation methods	Number of health workers trained	-	-	30	30	50%	GHS

7. **Strategic objective 3.3.1: To reduce the percentage of adults who do not engage in any vigorous physical activity in past 7 days from 53% in women and 27% of men in 2008 to 48% and 22% respectively by 2013**
8. **Strategic objective 3.3.2: To reduce the percentage of SHS who were physically active on all 7 days during the past 7 days for a total of at least 60 minutes per day from 18.7% in 2008 to 15.0% by 2013**

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Undertake public education in the media on physical activity at home, work and during leisure	Number of public education campaigns	Activity reports	-	10	20	35	GHS
Organize health walk campaigns in schools, workplaces, churches, etc	Number of health walks organized	Activity reports	-	50	60	100	GHS
Advocate for GES to implement practical physical education programmes in SHS	Number of advocacy meetings with GES on physical activity	Activity reports	-	1	10	10	GHS

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Advocate for transport, roads, works, local government to pursue policies that promote walking, commuting and other forms of physical activity	Number of advocacy meetings with GES on physical activity	-	-	1	2	3	GHS

9. **Strategic objective 3.4.1: To promote healthy diet and healthy eating**
10. **Strategic objective 3.4.1: To reduce overweight and obesity in women aged 15-49 years from 29.9% in 2008 to 28% by 2013**
11. **Strategic objective 3.4.2 To reduce overweight and obesity in SHS students from 7.8% in 2008 to 6.0% by 2013**
12. **Strategic objective 3.4.2 To reduce the consumption of salt by 10% by 2012**
13. **Strategic objective 3.4.1: To reduce the percentage of adults eating less than 5 vegetable or fruit servings daily from 98% in 2008 to 90% in 2013**

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Organize sustained public education programmes on healthy lifestyles - healthy diet, physical activity, tobacco and alcohol	Number of educational programmes on healthy living	Activity reports	-	10	50	100	GHS
Develop, update or disseminate national dietary guidelines	% of districts with national dietary guidelines	Survey; Monitoring visits	-	-	100%	100%	GHS
Organize stakeholders' meeting and develop salt reduction programme in Ghana	Nbr of meetings held	Meeting report	-	-	2	-	GHS
Conduct literature review or study to compile salt content of common local foods in Ghana	Number of studies conducted	Report of study	-	-	1	-	GHS
Advocacy on fiscal measures to reduce cost of healthy foods	Nbr of meetings held	Meeting report	-	-	2	3	GHS/CSO

14. Strategic objective 3.5: To prevent vaccine-preventable NCDs

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Increase childhood hepatitis B coverage	% of infants receiving all doses of hepatitis B	90%	92%	95%	95%	100%	GHS
Increase coverage of hepatitis B vaccination for adults at risk	% of high-risk workers receiving all doses of hepatitis B		10%	20%	30%	40%	GHS
Convene Technical Working Group on introduction of Human Papilloma Virus vaccination for young girls	Nbr of meetings held		-	2	4	-	GHS

15. Strategic Objective 4: To improve early detection of NCDs

16. Strategic objective 4.1.1: Promote opportunistic screening for hypertension, diabetes and high cholesterol

17. Strategic objective 4.1.2: To increase the percentage of subjects in a survey aware of their hypertension from 22%-34% (Greater Accra; Ashanti Region) in 2004 to 40%-45% by 2013

18. Strategic objective 4.1.3: To increase the percentage of subjects in a survey aware of their diabetes from 33% (Greater Accra Region) in 1998 to 40% by 2013

19. Strategic objective 4.1.4: To increase the percentage of adults whose blood pressure has been measured by a health professional in the past one year from 40% (GAR) in 2006 to 50% by 2013

Key Activities /Interventions	Indicators	Timeline					Agency responsible
		2012	2013	2014	2015	2016	
Measure blood pressure of all adult outpatients at health facilities	% diseased-outpatients aged 25 years and older whose BP measured	-	30%	50%	60%	75% annually per health facility	GHS
Train laboratory personnel in diagnosis of NCDs	All laboratory personnel trained in NCD	-	25%	40%	60%	80%	GHS
Equip primary care facilities to investigate abnormal blood sugar and cholesterol	No. Of facilities screening fasting sugar, cholesterol	-	20%	30%	60%	80%	GHS
Organize refresher training for prescribers on NCD management	% of prescribers updated in NCD management	-	10%	20%	25%	50%	GHS
Provide and regularly maintain equipment for investigation of NCDs and their risks	% of facilities with functional weighing scales	-	40%	60%	80%	100%	GHS

Key Activities /Interventions	Indicators	Timeline					Agency responsible
		2012	2013	2014	2015	2016	
	% of facilities with functional BP monitors	-	-	80%	90%	100%	GHS
	% of facilities with minimum number of functional BP monitors	-	-	80%	90%	100%	GHS
	% of facilities with glucometers and test strips			30%	40%	50%	GHS
Examine school children to identify overweight or obese children	% of school children 6-14 years screened - BMI	-	-	10%	20%	30% per district	GHS
Institutionalize bidirectional screening of tuberculosis and diabetes	% of diabetes patients screened for tuberculosis	-	-	20%	40%		GHS
	% of tuberculosis patients screened for diabetes	-	-	20%	40%		GHS
Integrate NCD screening into HIV workplace programmes	Number of HIV workplace programmes screening for employee well being	-	15	20	40		GHS
Increase coverage of Employee Wellbeing Programmes (EWP)	% of registered companies with Employee Wellbeing Programmes	-	-	10%	20%		GHS

20. Strategic objective 4.2: To increase the early detection of cancers

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Increase coverage of cervical cancer screening and cryotherapy/LEEP centres	Number of VIA screening sites	4	6	8	10	20	GHS
	% women aged 35-54 years in VIA regions screened	-	-				GHS
	Number of regional and selected district hospitals with colposcopes		-	4	8	10	GHS

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Increase coverage of breast cancer screening	% women aged 30-65 years opportunistically screened by clinical breast exam (CBE) in health facilities	-					GHS
	Number of health facilities offering CBE	-	4	20	30	40	GHS
	% of women aged 20-65 years performing monthly self-breast examination (SBE)	-	10%	30%	50%	70%	GHS
	Increase number of regional and other large hospitals with mammography	-	5	8	10	15	GHS
	Refresher training for clinicians on breast and cervical cancer	-	-	2	2	3	GHS
Screening for prostate cancer	Number of facilities providing prostate cancer screening	-	5	8	10	15	GHS
Screening for colorectal cancer	Number of facilities providing colorectal cancer screening	-	5	8	10	15	GHS

21. Strategic Objective 5: To improve clinical management and outcomes of NCDs

Key Activities /Interventions	Indicators	Timeline					
		2012	2013	2014	2015	2016	
Establishment of specialist NCD clinics in all regional hospitals	No of Specialist hypertension, diabetes, asthma, cancer clinics established	6 regional hospitals	-	8	9	9	GHS
No. Of specialist outreach sessions on NCD	No. Of specialists outreach sessions on NCD in regional and district hospitals	-	-	4	4	Minimum of 4 per Regional Hospital per year	GHS

Key Activities /Interventions	Indicators	Timeline					
		2012	2013	2014	2015	2016	
Development of training modules	Availability of NCD training modules - hypertension, diabetes, asthma, cancers	-	-	2 module on CVD, DM	Module on asthma	Module on cancers	GHS
Train available health care providers including primary care providers on NCDs	Nbr of health facilities with trained care providers	-	-	20%	40%	40%	GHS
Provide technical guidelines & protocols for management of the NCDs	Availability and use of technical guidelines on various NCDs	-	-	50%	80%	100%	GHS
Cardiovascular, diabetic patients on secondary prevention - lifestyle and pharmacological	% CVD, DM patients on secondary prevention	-	-	10%	15%	20%	GHS

22. Strategic Objective 6: To strengthen the monitoring of NCDs, their determinants and the national capacity to respond to NCDs

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Integrate NCD surveillance into IDSR	Number of NCDs integrated into IDSR and routinely reported on	0 (2009)	2 NCDs		4 NCDs	5 NCDs	GHS
Promote reporting of NCD surveillance as part of the IDSR	% of districts reporting NCDs as part of IDSR	0	50%		100%	100%	GHS
Conduct or coordinate periodic chronic risk factor national or sub-national surveys every 3-5 years	Number of surveys	1 survey in Greater Accra Region (2006)	0	1	1	1	GHS
	Number of international surveys in youth - GYTS, GSHS, ISAAC	GYTS - 2006; GSHS 2008	-	-	2	2	GHS
Strengthen and scale up cancer registration	Review meetings on cancer registry		-	2	2	3	GHs
	Number of institutional cancer registries	2 (2011)	2	2	3	3	GHS

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Assess capacity to manage NCDs at regional and district levels	Surveys every 3-5 years	1	-	1 survey		-	GHS

23. Strategic Objective 7: To improve financing of NCD interventions

Key Activities /Interventions	Indicators	Timeline					Agency Responsible
		2012	2013	2014	2015	2016	
Increase budgetary allocation to NCDs	% of recurrent annual health budget allocated to NCDs	-	10%		13%	15%	MOFEP/MOH
Advocate for adequate coverage of NCDs in health insurance schemes	Nbr of advocacy meetings	-	-	2	2		MOH/ NHIA
Advocate for percentage of taxes from harmful products such as tobacco and alcohol to be allocated to NCD prevention	Nbr of advocacy meetings	-	-	2	2		MOFEP/MOH

Budget

Summary of Budget NCD Strategic Plan 2012 - 2016						
Main intervention area	Year					
	2012	2013	2014	2015	2016	Total (US $)
Governance & Coordination	400,000	700,000	1,100,000	1,500,000	1,800,000	**5,500,000**
Primary Prevention	3,150,000	2,800,000	3,950,000	4,000,000	4,500,000	**18,400,000**
Early Detection	3,500,000	4,200,250	4,300,000	4,500,550	4,555,000	**21,055,800**
Clinical Care	3,200,000	3,500,500	3,850,000	3,900,000	4,000,000	**18,450,500**
Rehabilitation & Palliative Care	1,150,000	2,200,250	2,800,000	2,900,500	3,000,000	**12,050,750**
Health System Strengthening	1,150,000	2,100,000	2,350,000	2,350,000	2,320,000	**10,270,000**
M & E	1,450,000	1,680,000	1,650,000	1,550,500	1,850,000	**8,180,500**
Total	**14,000,000**	**17,181,000**	**20,000,000**	**20,701,550**	**22,025,000**	**93,907,550**

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