

**THE UNITED REPUBLIC OF TANZANIA**



**Ministry of Health and Social Welfare**

National Noncommunicable Disease  
Strategy

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## List of acronyms

<b>AIDS</b>	<b>Acquired immune Deficiency syndrome</b>
<b>AMMP</b>	<b>Adult Morbidity and Mortality Project</b>
<b>CD</b>	<b>Communicable Diseases</b>
<b>CVD</b>	<b>Cardio Vascular Disease</b>
<b>DANIDA</b>	<b>Danish International Development Agency</b>
<b>FCTC</b>	<b>Framework Convection of Tobacco Control</b>
<b>HBV</b>	<b>Hepatitis B Virus</b>
<b>HCV</b>	<b>Hepatitis C Virus</b>
<b>HIV</b>	<b>Human Immune Deficiency virus</b>
<b>HPV</b>	<b>Human Papilloma Virus</b>
<b>IDSR</b>	<b>Integrated Disease Surveillance and Response</b>
<b>MoHSW</b>	<b>Ministry of Health and Social Welfare</b>
<b>MTUHA</b>	<b>Mfumo wa Taarifa za Uendeshaji wa Huduma za Afya</b>
<b>NCD</b>	<b>Non Communicable Disease</b>
<b>NPD</b>	<b>Neuro-Psychiatric Disorder (NPD)</b>
<b>PMORALG</b>	<b>Prime Ministers Office Regional Authority and Local Government</b>
<b>RTA</b>	<b>Road Traffic Accident</b>
<b>SCD</b>	<b>Sickle Cell Disease</b>
<b>STEPS</b>	<b>STEPwise approach to Surveillance</b>
<b>TB</b>	<b>Tuberculosis</b>
<b>WHO</b>	<b>World Health Organization</b>

## **Preface**

There is a widening health gap among and within countries and regions of the world in life expectancy, disease burden and quality of life that results primarily from a growing epidemic of NCD. This is a global phenomenon affecting both rich and poor communities. The WHO is advocating a global strategy for prevention and control of NCD as a response to this growing epidemic. This includes commitment by member nations to develop and implement a national strategy for prevention and control of NCD, based on local realities.

Traditionally, communicable diseases have been the main preoccupation of health sector planning and implementation in Tanzania. Until recently, the greater burden of disease in the country could be attributed to communicable diseases. As a result, resource allocation in the sector was skewed towards infectious diseases. However, the notion that communicable diseases are the major causes of morbidity and mortality in the country is no longer tenable. Increasingly our nation is forced to pay attention to the double burden of communicable and non communicable diseases.

Both local and international scientific evidence shows that the raising burden of disease attributable to NCD is surpassing that of infectious diseases. In Tanzania, there is a rich experience of morbidity and mortality caused by cardiovascular diseases, cancer, diabetes, chronic respiratory disease, oral health, mental health and substance abuse, accidents and injuries. These groups of conditions constitute the more common NCD.

The NCD challenge is overwhelming, when you consider poverty levels, resource constraints to the health sector, huge costs of managing malaria, HIV and AIDS, tuberculosis and reproductive health, effects of climate change, world food crises etc. Despite all those adverse factors, the Ministry is forced to address NCD needs before it is too late. Any delays in recognition and development of appropriate interventions for NCD, is likely to undermine even the modest successes recorded in the control of communicable diseases. It is not a matter of either or. It is necessary to have a balanced approach in planning and resource allocation for both CD and NCD.

This national NCD Strategy is a product of many years of experience in the country. Local experience and data has contributed significantly in the development of the document. Through stakeholder meetings, consultation with international partners, WHO and local NGOs, we finally have a good guide towards development of rational NCD services in the health sector. It is an important milestone to our health sector development process and a step towards a comprehensive national NCD strategic plan.

I look forward to rapid progress in translating the objectives of the National NCD Strategy into implementable plans that will comprehensively improve quality of

NCD care in Tanzania.

Wilson C. Mukama  
Permanent Secretary  
Ministry of Health and Social Welfare

## **Acknowledgement**

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Finally, the Ministry wishes to thank Tanzania Diabetes Association, World Diabetes Foundation and DANIDA for supporting the whole process of the strategy development

Dr Deo Mtasiwa  
Chief Medical Officer

## Executive Summary

This document sets out Government strategy for the prevention and control of Noncommunicable Diseases and conditions in Tanzania. It forms an integral part of the broader medium-term strategy for the health sector as a whole, the Health Sector Strategic Plan III 2009-2015.

Noncommunicable diseases and conditions including injuries cause a significant and growing proportion of the burden of disease in Tanzania, accounting for between 15% and 28% of all Years of Life Lost. There is therefore a need to address NCD before they will take unaffordable epidemic proportion. The rapid increase in prevalence of NCDs is attributed to the demographic change with longer life span and to changes in lifestyle specifically concerning diet, level of physical activity, alcohol and tobacco usage which are common risk factors shared by several NCDs.

The NCD strategy is guided by the principle of equity through ensuring access, availability to affordable quality health services throughout the country; by having a culture and gender sensitive approach. A multi sector approach to address NCD comprehensively will be promoted involving all relevant partners from the public, private, national and international scene. The strategy promotes an evidence based approach ensuring that interventions are of high standard as well as cost-effective.

**The goal** of this strategy is to reduce the disease burden from NCD by taking integrated action as to have a society with good health free of Noncommunicable diseases and conditions contributing effectively to individual

and national development

Key to this strategy are the **promotive activities** focusing on increasing awareness of NCD and associated risk factors, promoting healthy lifestyles and community involvement and the individual taking responsibility for own health; **preventive services** focusing in limiting the incidence of NCD by controlling causes and risk factors, **care and treatment activities** focusing on strengthening the capacity of health workers on NCD in diagnosis and management, strengthening of the health system by ensuring available medicine and equipment and a well-functioning referral system and **rehabilitation services** focusing on strengthening community based rehabilitation as well as palliative care services, and home-based care programmes

Special attention is given to the risk factors that are common causative agents for the development of NCD namely malnutrition both over- and under nutrition, lack of physical activity, alcohol and tobacco use.

To ensure delivery of quality NCD services the health system in general needs strengthening through an integrated approach avoiding establishment of parallel systems. For better informed planning NCD surveillance, monitoring and evaluation mechanisms need to be integrated in the existing data collection system routine and survey based. Research in the NCD field will be promoted to continuously strive to improve the management and prevention of NCD in Tanzania.

The **implementation** of this strategy is detailed in specific operational implementation plans which continuously will be revised and refined as new developments are realized.

## 1 Introduction

This document sets out Government strategy for the prevention and control of Noncommunicable Diseases and conditions in Tanzania (Mainland) which principally includes cancers, chronic respiratory diseases, cardiovascular diseases, diabetes, mental disorders, substance, abuse sickle cell disease and injuries trauma as well as birth defects, blindness and deafness, oral health,. The NCD Strategy draws upon the World Health Organization Global Strategy on Diet, Physical Activity and Health and more detailed national strategies already developed for specific areas<sup>1</sup>. In particular, it draws upon the National Guidelines for the Prevention and Control of Noncommunicable Diseases (November, 2007). This strategy document is the product of a consultative exercise that drew upon a wide range of national expertise, international knowledge and experience and a review of existing literature.

It forms an integral part of the broader medium-term strategy for the health sector as a whole (Health Sector Strategic Plan III 2009-2015). The HSSP III in turn sets out health sector priorities within a broader policy and strategic framework as defined by Tanzania Vision 2025, the National Strategy for Growth and Reduction of

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<sup>1</sup> Such as the draft National Cancer Control Strategy and the Mental Health Strategy

Poverty (*Mkukuta*), the National Health Policy 2007 and the National Primary Health Service Development Strategy (known in Kiswahili acronym as MMAM) all based on an integrated approach taking into account matters of poverty, gender and equity.

Noncommunicable diseases and conditions including injuries cause a significant and growing proportion of the burden of disease in Tanzania, accounting for between 15% and 28% of all Years of Life Lost<sup>2</sup>. After age five, NCD including injuries are a major cause of death, accounting for between a quarter and a third of all deaths among children and young adults. In the Adult Morbidity and Mortality Project it was found that in the oldest age group in Hai and Dar Es Salaam NCDs are already the leading cause of death. As the epidemiological transition progresses and burden of communicable diseases diminish, the burden of disease from NCD is expected to grow rapidly.

Table 1 **Noncommunicable Disease and Injuries as % all deaths by age group**

Age Group	Geographical Area		
	Morogoro	Hai	DSM
0-5	5%	12%	10%
6-15	29%	34%	34%
16-36	23%	33%	22%
36-60	29%	46%	33%
61+	27%	59%	58%

Source: Pooled data from 1994-2002; AMMP/MOHSW, reanalysed by IHRDC

Many NCD share common risk factors related to lifestyle including diet, physical inactivity, smoking and alcohol. Thus by addressing these risk factors multiple chronic diseases are targeted. However, risk factor related illnesses may take a considerable number of years to develop incurring a considerable lag time between health promotion and preventive action and impact on public health. Still health promotion and prevention has been found to be the most cost-effective measure to fight NCD.

Changing lifestyle habits is a process which takes time and needs continued attention and strong will of the individual to be successful. Addressing healthy living from early age therefore is of great importance. By anticipating the likely surge in Noncommunicable disease in future decades, Tanzania is well-positioned to take early strategic action to limit the future burden of disease which will otherwise put a heavy toll on the health care system.

This strategy places the main priority on promotive and primary prevention services, with a particular focus on the conditions that are manageable and have (or will have) the largest impact on public health taking into account the available resources and capacity of the Tanzanian health care system. These conditions are substance abuse, depression, cervical and breast cancer, asthma, road traffic

<sup>2</sup> Adult Morbidity and Mortality Project 1994-2002

accidents, hypertension, diabetes and sickle cell disease. It also highlights the opportunities for enhancing secondary prevention (control and treatment) of the most common Noncommunicable diseases. Tertiary prevention of NCD related complications and patient rehabilitation are addressed where deemed cost-effective.

The strategy recognises that effective prevention of NCD will require multi-sectoral and multi-disciplinary action involving public and private collaboration. For example, reducing smoking may entail a range of measures including public education, legislation to restrict smoking, fiscal measures to make smoking more expensive, and action to ensure that these measures are enforced. It is therefore important that the strategy is effectively disseminated and that implementation is effectively co-ordinated between different branches of government and other key stakeholders.

## **2 Background**

### **2.1 The burden of NCD globally and in Tanzania**

In 2005 there were an estimated 58 million deaths worldwide. Of these 35 million were estimated to be due to chronic NCD and a further 5.2 million due to injuries (fig 1.). This burden represents twice as many deaths as can be attributed to Communicable Diseases (CD), such as HIV/AIDS, Tuberculosis (TB) and Malaria, maternal and perinatal conditions and nutritional deficiencies combined<sup>3</sup>. It is estimated that 80% of these deaths occur in developing countries.

In 2005 the World Health Organisation estimated that around 20% of deaths in Tanzania were due to NCD including injuries<sup>4</sup>. In the Adult Morbidity and Mortality Project (1994-2002) covering 4 Tanzanian districts it was found that between 15-28% of deaths were attributable to NCD including injuries. The chronic diseases contributing the most to overall mortality in Tanzania according to the AMMP are cardiovascular disease, cancer, central nervous system disease, diabetes and chronic respiratory disease. These diseases share the same underlying preventable risk factors as outlined in table 1<sup>5</sup>.

When looking at morbidity worldwide five out of ten leading causes of loss of Disability Adjusted Life Years for adults are neuro-psychiatric conditions. An estimated 14% of the global burden of disease is due to neuro-psychiatric disorders (NPDs)<sup>6</sup>. In Tanzania it is estimated that 3.9% of the population is suffering from psychosis, 3.2% common mental disorders and 5.7% alcohol related problems<sup>7</sup>

### **Figure 1 – Distribution of worldwide deaths by cause**

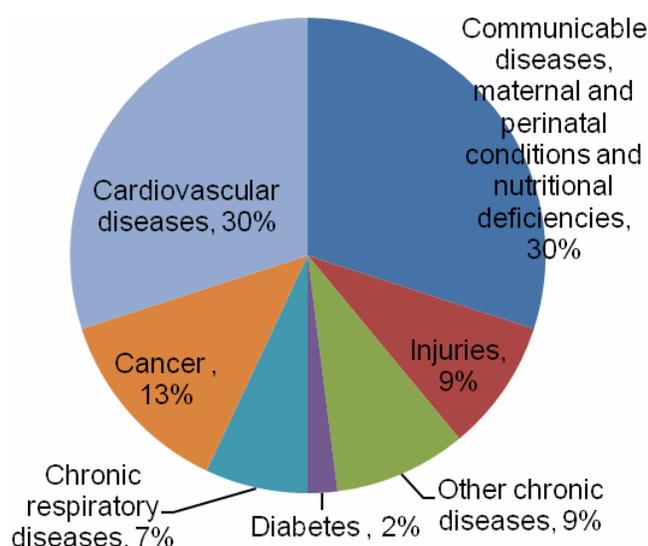
<sup>3</sup> **World Health Organization.** *Preventing Chronic Diseases a Vital Investment.* Geneva : World Health Organization, 2005.

<sup>4</sup> **World Health Organization.** *Global Strategy on Diet, Physical Activity and Health.* Geneva : World Health Organization, 2004.

<sup>5</sup> Adult Morbidity and Mortality Project 1994-2002

<sup>6</sup> Lancet article series on Mental Health: [http://www.thelancet.com/online/focus/mental\\_health/collection](http://www.thelancet.com/online/focus/mental_health/collection)

<sup>7</sup> (Jenkins R., et al 2008 –to be published)



The burden of NCD is increasing due to what has been termed the nutritional transition, with large consumption of highly refined and processed foods, foods rich in saturated fats, sugar and salt<sup>8</sup> and increasing sedentary lifestyle. This transition is driven by issues such as trade, foreign investments and urbanisation. These can lead to economic development, but are also the main factors leading to increase in unhealthy behaviours and thereby increased risk of NCDs<sup>9</sup>.

**Table 1 – Common risk factors for the main chronic NCD**

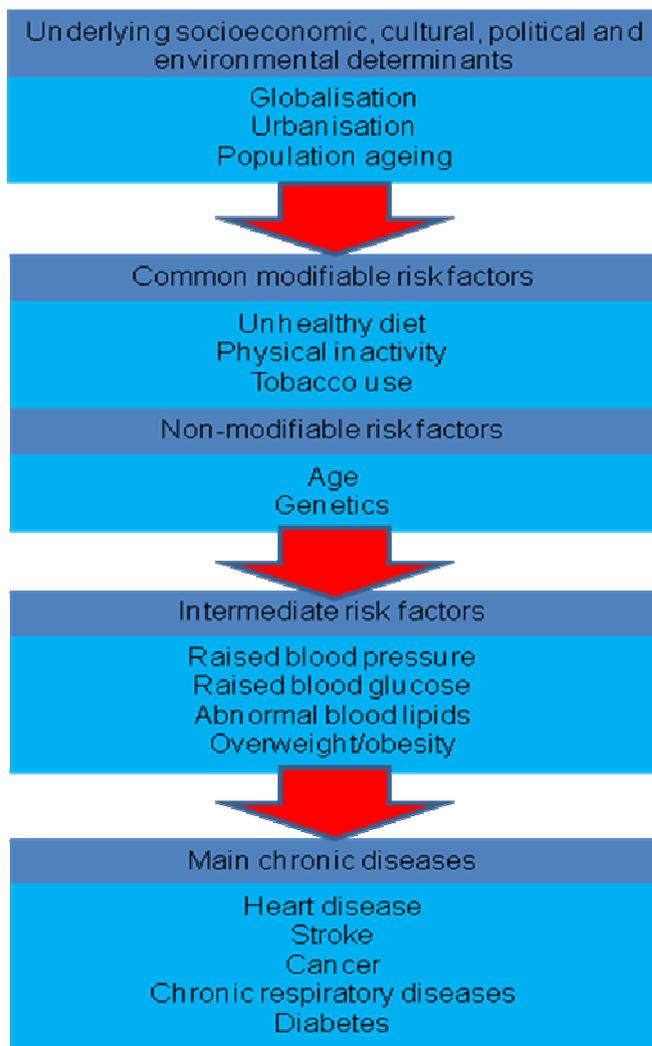
Risk factor	Condition			
	CVD	Diabetes	Cancer	Respiratory Conditions
Smoking	X	X	X	X
Alcohol	X		X	
Nutrition	X	X	X	X
Physical inactivity	X	X	X	
Raised blood pressure	X	X		
Blood glucose	X	X	X	

<sup>8</sup> Ezzati, M, et al. *Comparative quantification of health risks: global and regional burden of disease attributable to selected major risk factors*. Geneva : World Health Organization, 2004.

<sup>9</sup> Yach, D, et al. *The Global Burden of Chronic Diseases Overcoming Impediments to Prevention and Control*. *JAMA*. 2004, Vol. 291, 21, pp. 2616-22.

<b>Blood lipids</b>	X	X	X	
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Figure 2 – Path of risk factors to chronic NCD (adapted from (3))



Six of the main risk factors for NCD are related to poor diet and physical inactivity. Addressing these risk factors effectively has been estimated to prevent 80% of coronary heart disease, up to 90% of diabetes type 2 and one third of cancers<sup>10</sup> and is therefore key in NCD strategy.

Although the above risk factors cut across many NCD, there are also other risk factors like environmental exposures (extreme weather conditions, volcanic eruptions, earthquakes) and stress which have an effect to NCD.

Concerning congenital birth defects these to a large extent are attributable to poor prenatal condition and complications during labour. Attention must therefore

<sup>10</sup> Mackay, J and Eriksen, M. *The Tobacco Atlas*. Geneva : World Health Organization, 2002.

be directed to assuring safe pregnancies and deliveries with immediate availability of Emergency Obstetric care in care of delivery complications.

Preliminary data from the WHO STEPwise approach<sup>11</sup> to Surveillance of NCD Risk Factors (STEPS) in Tanzania is presented below in Table 2. These main risk factors account for 80% of deaths from heart disease and stroke<sup>12</sup>.

**Table 2 – Risk factor prevalence, Preliminary results from Tanzanian STEPs Study**

Risk factor	Tanga	Iringa (Kilolo)	Mwanza (Nyamagan a)
Smoking	12%	6%	12%
Alcohol consumption	29%	71%	33%
Elevated blood pressure	20%	36%	19%
Elevated Blood Glucose	-	0%	1.3%
Elevated Blood Lipids	-	12%	16.6%

### 3 Financial and Social Impact of NCD

Chronic NCD impose an economic burden on the individual, the household and community the employers, the health system and national economy as a whole. For the individual and household the costs are related to lifestyle changes, treatment and medication, loss of income due to their illness, but also to the cost of purchasing alcohol and cigarettes. For the community and employer costs are related to reduced productivity. For the health system the costs are related to the high costs of treating the conditions and their related complications both in terms of human resources, equipment and medicines. Different factors related to chronic diseases such as reduction in workforce quantity and productivity, cost of treatment depleting savings and investment, including in education of children will have an impact on the earning potential and therefore affect the national economy<sup>13</sup>. It was estimated that in 2005 chronic NCD cost the Tanzanian economy US\$ 100 million. This is expected to increase to US\$ 500 million by 2025 and will lead to an accumulated loss of income in Tanzania over this period of US\$ 2.5 billion (13).

Besides these economic costs NCD can lead to social costs at both individual and household level due to individual loss of position in the family, stigma, misconceptions and necessary lifestyle changes. It has also been shown that people with chronic illness have a greater risk of developing depression which also

<sup>11</sup> This methodology was developed by the WHO in order to assess trends in the prevalence of common risk factors for NCDs.

<sup>12</sup> Mackay, J and Mensah, GA. *The Atlas of Heart Disease and Stroke*. Geneva : World Health Organization, 2004.

<sup>13</sup> World Health Organization. *Preventing Chronic Diseases a Vital Investment*. Geneva : World Health Organization, 2005.

impact on community, households and individual level<sup>14</sup>.

#### **4 Opportunities and Challenges**

Despite the existing challenges of a resource and capacity constrained health care system, which is not adapted to address NCD, and lack of public awareness there is growing political attention. Legislation is in place for tobacco control, alcohol consumption and control of food standards. Disease specific programs are already in place to address diabetes, mental disorders and cancer. The aim of this strategy is to address all conditions termed Noncommunicable diseases and conditions in a comprehensive manner.

#### **5 Guiding principles for the National NCD Strategy**

In line with the Medium Term Strategic Plan of the Ministry of Health and Social Welfare, this Strategy will aim to provide and promote:

- Equity – to ensure access to services throughout the country
- Accessibility, availability and affordability – to and of services for NCD to anyone who requires them
- Integrated approach – NCDs have an impact on the general population through common risk factors and in some cases require specialized attention once an individual has developed complications. This strategy will aim to ensure that an integrated and comprehensive approach is taken which will also establish links between NCD and other relevant existing programs both in the health and other sectors in Tanzania
- Complimentarity, cooperation and partnerships – alone the MoHSW will not be able to effectively address the growing challenge of NCD. The MoHSW will need to work with different local and international partners in different sectors to effectively address this challenge.
- Use interventions that are scientifically proven, cost effective and adapted to the Tanzanian context – a variety of interventions for the prevention and management of NCD exist, however not all of them are adapted to the Tanzanian context, due to socio-economic issues as well as the resource constraints present in Tanzania

#### **6 Target group of National Strategy for Noncommunicable Diseases and Disorders**

All Tanzanians

#### **7 Vision**

To establish a healthy environment in Tanzania that will enable sustainable economic and social development, whilst minimizing the exposure to the NCD risk factors and enabling those needing to access care.

#### **8 Mission**

To improve general health status by ensuring access to quality preventative, curative and rehabilitative services for NCDs and conditions for the Tanzanian

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<sup>14</sup> Glasgow RE et al. Behavioural Science in Diabetes. Diabetes Care 1999; 22(5): 832-843

population

## **9 Goal**

To reduce the disease burden from NCD by taking integrated action as to have a society with good health free of Noncommunicable diseases and conditions contributing effectively to individual and national development

## **10 General Objective**

To combine integrated action on NCD risk factors and their underlying determinants, and strengthen health systems so as to reduce the Noncommunicable Disease and Condition morbidity and mortality generally improving health status

## **11 NCD prevention and control: Intervention components, strategic objectives and priority actions**

This National NCD strategy is centred around the following:

- a. Promotive activities/Primary prevention services:** lifestyle modification, education, health promotion and vaccination
- b. Care and Treatment services:** early illness detection and treatment
- c. Rehabilitative services:** rehabilitation and prevention of complications

The strategy also takes into account the WHO Global Strategy on Diet, Physical Activity and Health and the WHO Framework Convention on Tobacco Control:

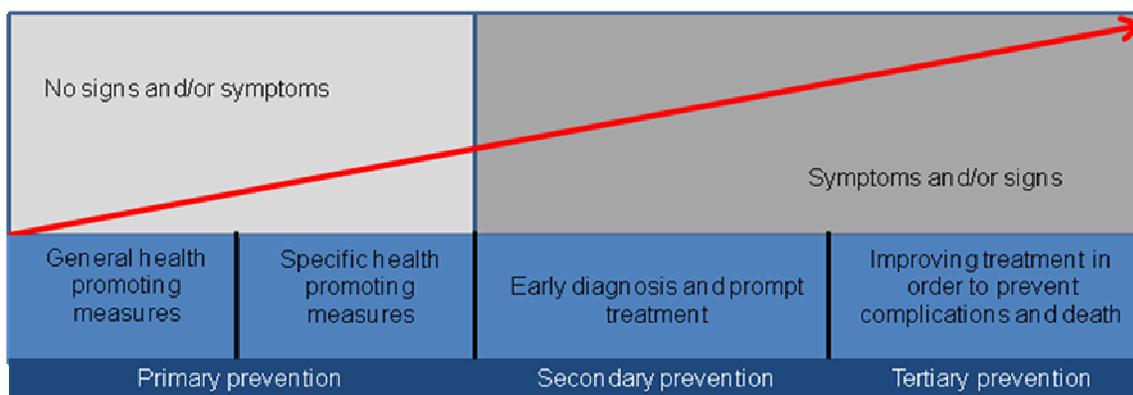
In order to address the growing challenge of NCD and conditions the health systems in Tanzania needs to be adapted to managing chronic disease and conditions and include measures for primary and secondary prevention<sup>15</sup>. Interventions to prevent NCD should not only be the focus of the Ministry of Health and Social Welfare, but other ministries, agencies and national policies and macroeconomic interventions also play an important role. Furthermore the private sector needs to be involved and made responsible especially in the preventive and systems strengthening aspect of NCDs. Equally important will be to ensure broad community involvement and participation to ensure sustainability to foster individual responsibility for own health status.

### **Figure 3 – Different levels of prevention adapted from<sup>16</sup>**

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<sup>15</sup> **Yach, D, et al.** The Global Burden of Chronic Diseases Overcoming Impediments to Prevention and Control. *JAMA*. 2004, Vol. 291, 21, pp. 2616-22.

<sup>16</sup> **World Health Organization.** What is Mental Health? [Online] 2008. [Cited: 21 April 2008.] [www.who.int/features/qa/62/en/index.html](http://www.who.int/features/qa/62/en/index.html).



## 11.1 Component 1: Promotive activities/Primary prevention services for Non communicable diseases

Health promotive activities and Primary prevention services have the most to contribute to health and all are important and complementary. Promotive activities focus on behaviour change and aim at avoiding the emergence and establishment of the social, economic, and cultural patterns of living that are known to contribute to an elevated risk of disease; while Primary prevention aims in limiting the incidence of NCD by controlling causes and risk factors.

Promotive activities as well as Primary Prevention services have been shown to be the most cost-effective measure to address NCD especially in a resource constrained environment. These are therefore one of the main priorities of this strategy. Focus will be on health education and promotion and advocacy for formulation and enforcement of legislation addressing NCD and related risk factors in coordination and collaboration with other ministries and government agencies. Specific attention will be given to promoting healthy lifestyles including nutrition and physical activity. Community participation and ownership is the key to success.

### 11.1.1 Nutrition

Healthy lifestyle though a nutritious diet is key in maintaining good health. This strategy targets malnutrition comprehensively including both over- and under-nutrition. Over-nutrition is mainly caused by excess intake of energy compared to need whereas under-nutrition can be both related to lack of macronutrients as well as micronutrients. This strategy aims at ensuring food security, food safety and food quality in a cultural sensitive manner through coordinated interventions with key stakeholders including relevant agencies (Tanzania Food and Nutrition Centre, Tanzania Food and Drugs Authority), Ministry of Agriculture and Fisheries, Department of Reproductive and Child Health, WHO, private sector and international partners among others.

### 11.1.2 Physical Activity

Being another key risk factor to NCD increasing level of physical activity must be targeted. This will be done focussing on different age groups and taking into

account cultural perceptions and practices. Physical activity can be addressed at home, in schools, workplaces, in public space and should be remembered when city and transport planning is done.

### **11.1.3 Tobacco use**

The harmful effects of tobacco use are well established. This is a key risk factor for cancer, cardiovascular and respiratory diseases and for developing diabetic complications. Tobacco issues will be planned and implemented based on the WHO Framework Convention on Tobacco Control which Tanzania is signatory to. A law regarding tobacco control is in place this act regulates the manufacture, labeling, distribution, sale and promotion of tobacco products and smoking areas. Enforcement of this law is key in the fight against tobacco use.

### **11.1.4 Health Education and Promotion**

These measures are relevant to address and tackle all NCD and the common risk factors like unhealthy diet, physical inactivity, excessive alcohol consumption and tobacco use can be generally addressed. There is also a need to specifically focus on education and sensitization on mental disorders and substance abuse, to promote safe sexual behaviour in order to avoid cervical cancer, to promote screening and counselling for SCD carriers and to promote prevention of air pollution to prevent chronic obstructive lung diseases. health worker curricula need to be reviewed to ensure training on health educative and promotion responsibilities and tools.

### **11.1.5 Legislation**

It has been repeatedly demonstrated that taking legal measures can effectively limit exposure to NCD risk factors. This strategy therefore aim at ensuring formulation and implementation of relevant legislation in the fields of tobacco and alcohol use, road traffic safety and violence, food safety and safe workplace environment. Possibilities to take legislative measures to promote healthy lifestyle will also be reviewed.

#### *Strategic objectives:*

- Increase knowledge and awareness of NCD, associated risk factors and healthy lifestyle by involving all sectors within Tanzania in addressing the issue of NCDs in Tanzania
- Advocate for healthy lifestyle for both individual and the general society in Tanzania
- Increase access to preventive education against use of tobacco, alcohol and other addictive drugs.

#### *Priority actions:*

- Develop NCD sensitization and advocacy strategy
- Develop and carry out media and community and workplace based health promotion activities
- Develop and implement school education modules on healthy living
- Develop national dietary guidelines
- Develop community based (adult literacy classes, women's and religious

- groups, sports clubs and other community groups) education sessions about NCDs
- Enforce Framework Convention on Tobacco Control (FCTC)
  - Enforce and strengthen existing legislation with relation to NCDs
  - Develop drug abuse prevention programmes to cater for vulnerable groups in the community.
  - Formulate national recommendations on alcohol consumption
  - Develop framework for multi-sector cooperation and coordination

## **11.2 Component 2: Care and treatment for Non Communicable diseases**

The main tool for care and treatment starts with the availability of screening methods for NCD. The goal is to detect diseases at an early stage in order to be able to initiate prompt treatment. Screening should be based on risk factors such as age, weight and family history. In this strategy priority is given to screening for hypertension, diabetes, cervical and breast cancer and focussed screening for SCD.

For Mental Health and substance abuse, RTAs and Asthma, care and treatment services aim to ensure people who have had an accident have access to healthcare services as promptly as possible after the accident to prevent injuries from worsening and leading to otherwise preventable death. For asthma the main aim is to prevent acute episodes of asthma through reduced exposure to factors causing attacks and proper use of therapies. For mental health, early detection and prompt treatment aim to reduce the number and duration of acute episodes of mental illness.

Generally care and treatment services focus will be on limiting barriers to access by ensuring curative services as well as preventive services are near the community level including a well functioning referral system.

Strategic objectives:

- Strengthen healthcare workers' capacity on NCD identification, management and rehabilitation
- Develop screening programmes for NCDs
- Ensure access to necessary medicines and diagnostic tools at all levels of the health system
- Develop a plan on integration of NCD management within existing health care system
- Strengthen the District level as the main level where NCD management should take place

Priority actions:

- Carry out NCD health system service availability and needs assessment
- Review and improve health worker curriculum on NCD identification and management

- Develop (where not existent) and widely distribute clinical NCD practice guidelines
- Ensure On Job Training and Continued Professional Development of health workers at all levels on NCD
- Based on risk factors develop screening programmes for hypertension, diabetes, cervical and breast cancer and SCD at the appropriate levels of the health system and workplaces
- Improve supply of medicines and diagnostic tools to appropriate levels of the health system
- Integrate care for children with Asthma and SCD with clinics run for children with diabetes
- Integrate services for people with HIV/AIDS, for example counselling, to people with NCDs

### **11.3 Component 3: Rehabilitation services for Non Communicable diseases**

Adherence to treatment, both lifestyle and medicines, is an important part of rehabilitation services aiming at avoiding complications. NCD are major causes of disability, including blindness, lower limb amputation, motor and sensory dysfunction following stroke, chronic pain, and impaired functioning following myocardial infarction. In rehabilitation services specific attention will be on depression, cervical and breast cancer, hypertension, stroke, diabetes, asthma, sickle cell diseases and accidents and violence related injuries.

Rehabilitation of people who have developed complications is essential in order for these people to reintegrate in their family and community. Priority will be given to community based rehabilitation and home based care programmes.

Besides rehabilitation, palliative care is an important factor to sustain quality of life. It is most common in cancer care, but can be used in other chronic conditions. Focus will be on palliative services in the form of personal care including nutrition and aid in daily living, counselling and pain management.

.Strategic objectives:

- Strengthen community based rehabilitation programmes.
- Strengthen home-based care of chronically ill
- Strengthen palliative care services

Priority actions:

- Identify and integrate existing community based home-based care programmes for chronically ill
- Identify and integrate existing community based rehabilitation programmes for chronically ill
- Increase access to palliative care
- Advocate for increased coverage of treatment rehabilitation and palliation of NCDs by social security and insurance schemes

#### **11.4 Component 4: Monitoring, Evaluation and Research**

Monitoring, evaluation and research is an important component in prevention and control of Noncommunicable diseases and conditions to be addressed together with key intervention components. The successful implementation of this plan is dependent on the availability of sufficient resources. Monitoring and evaluation are essential for ensuring sustainability. Data already present from studies and STEPs survey including data from an NCD needs assessment will enable MOHSW to monitor progress on NCD health status and health systems capacity development. . It is of importance though, that easily measurable process indicators are developed and an NCD surveillance mechanism becomes integral part of the existing Integrated Disease Surveillance and Response (IDSR) of infectious diseases as well as the Health Management Information System to ensure routine monitoring. Research on operational and technological areas is essential for improving health care services

##### ***Strategic objectives:***

- Ensure NCD registers are present throughout the country
- Integrate surveillance system (s for CDs and) NCDs in existing MTUHA system
- Conduct and disseminate finding of specific studies on NCDs and associated risk factors
- Strengthen mechanisms for monitoring and evaluation of NCDs and associated risk factors

##### **Priority actions:**

- Develop a plan for continuous routine monitoring and evaluation of NCD and associated risk factors
- Integrate NCD surveillance in MTUHA system
- Develop a National NCD research plan
- Evaluate factors lacking at District level for proper NCD management
- Combine data on RTAs, violence and suicide from Police and Health System
- Implement a feasibility study for the use of HPV vaccines in Tanzania

These strategies and their impact on the different NCD are summarised in Table 3.

**Table 3 Summary of priority actions and their relation to the different NCDs**

Priority action	HT and diabetes	Trauma and injury	Cervical cancer	Breast cancer	Mental health and substance abuse	Asthma	Sickle Cell Disease
Develop NCD sensitization and advocacy strategy	X	X	X	X	X	X	X
Develop and carry out media and community and workplace based health promotion activities	X	X	X	X	X	X	X
Develop school education modules for healthy living	X	X	X	X	X	X	X
Develop National Dietary Guideline	X		X	X	X	X	X
Develop community based information and education	X	X	X	X	X	X	X
Enforce FCTC	X			X		X	
Enforce and strengthen of legislation with relation to NCD	X	X	X	X	X	X	X
Develop drug abuse prevention programs to cater for vulnerable groups in the community					X		
Formulate national recommendations on alcohol consumption					X		
Develop framework for multi-sector cooperation and coordination	X	X	X	X	X	X	X
Carry out NCD health system service availability and needs assessment	X	X	X	X	X	X	X
Review and improve health worker curriculum on NCD	X	X	X	X	X	X	X

identification and management							
Develop (if not existent) and widely distribute clinical practice guidelines	X	X	X	X	X	X	X
Ensure On Job Training and Continued Professional Development of health workers at all levels	X	X	X	X	X	X	X
Develop screening programs for hypertension, diabetes, cervical and breast cancers and SCD	X		X	X			X
Improve supply of medicines and diagnostic tools to appropriate levels of the health system	X	X	X	X	X	X	X
Integrate care for children with Asthma and SCD with clinics run for children with diabetes						X	X
Integrate services for people with HIV/AIDS, for example counseling, to people with NCDs	X	X	X	X	X	X	X
Identify and integrate existing community based home-based care programmes for chronically ill	X	X	X	X	X	X	X
Identify and integrate existing community based rehabilitation programmes for chronically ill	X	X	X	X	X	X	X
Increase access to palliative care	X	X	X	X	X	X	X
Implement a feasibility study for the use of HPV vaccines			X				
Develop a National NCD research plan	X	X	X	X	X	X	X
Integrate NCD surveillance in the MTUHA system	X	X	X	X	X	X	X
Combine data on RTAs, suicide and violence from Police and Health System		X					
Evaluate factors lacking at District level for proper NCD management	X	X	X	X	X	X	X

Develop a plan for monitoring and evaluation	X	X	X	X	X	X	X
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## **12 NCD Prevention and Control; Supportive Components**

### **12.1 Strengthening Partnerships**

In order to address NCD comprehensively and in line with the Tanzania Development Plan, Vision 2025 and the National Strategy for Growth and Reduction of Poverty, this strategy aims to involve and create strong partnerships between a wide range of relevant players through a multi sector framework. These include individuals, communities, civil society, agencies, private sector, development partners, government agencies and relevant ministries e.g. MoHSW, PMORALG, Ministry of Education, Ministry of Agriculture, Ministry of Justice, Ministry of Sports a.o. In these partnerships focus should be on how to mainstream NCD into all relevant areas of creating healthy lifestyles, education and health. In order to ensure sufficient access to NCD related services it is also pertinent that non government health services providers are involved and contribute as equal partners for improving health of the general population.

### **12.2 Health System Strengthening**

In order to achieve the set out mission and goal of reducing the exposure to the most common risk factors for NCD and associated morbidity and mortality and ensuring access to quality preventative and curative services for the most common NCD, a general strengthening of the Health system will be necessary. This should be done in a comprehensive and coordinated manner lead by the relevant ministries, departments and agencies in order to approach the NCD challenge in an integrated, systemic way avoiding establishment of parallel mechanisms. An assessment of the available systemic resources including human resources, infrastructure, equipment, supplies and referral system, with a specific focus on NCD, will provide the baseline information enabling the health sector to prioritize according to established needs.

An essential element in the management of NCD is ensuring adequate supplies of medicines, equipment and medical supplies. Improvements in the Central Medical Store, distribution systems and quantification of needs is necessary in order to ensure that people with NCD can access the medication they need to avoid long-term complications.

Other health system requirements include improving the referral system, and management of chronic conditions in a system more adapted to acute infectious conditions, including private healthcare providers and also integrating traditional healers into health promotion, prevention and care programmes.

### **12.3 Organisation and Management (to be refined)**

The organisation and management of the NCD Strategy implementation will be integrated into existing structures at different levels in the health and related sectors. At MoHSW level a section for NCD, Mental Health and Substance abuse under Directorate of Hospital Services will be responsible for the overall policy and guideline development including monitoring and evaluation of implementation progress. An Interdepartmental Coordinating Committee will ensure close collaboration with Department of Preventive Services in the MoHSW.

A National Steering Committee for NCDs will be formally established with

representation from all relevant sectors, levels and medical specialties including national and international partners to oversee and guide the implementation of this strategy.

PMORALG through Local Government Authorities will be responsible for service delivery down to community level. Supervision of quality service delivery will follow existing national, regional and district structures.

Management at all levels should be performance based and it is a key concern that NCD service delivery should be integrated in the existing health system structures to avoid creation of competing parallel structures.

Fig. 4 Organisational set up of NCD implementation

**TO BE INSERTED**

#### **12.4 Advocacy and Sensitization**

As NCD is a new and emerging area of health challenges to be addressed in Tanzania there will be a need for comprehensive advocacy in order to raise awareness for prevention and control both within the health system but also within other Ministries, local and international NGOs, the private sector and donors. Sensitization of communities will be needed to shape public perceptions and behaviour and build popular support. As NCD in many aspects is a cross-cutting issue information is needed to effectively advocate for NCD and to initiate and enhance collaborations between different stakeholders. Therefore data is required and research needs to be carried out in different areas, such as NCD related morbidity and mortality, cost of illness, financial impact,, lifestyles, adherence to treatment and patient knowledge attitude and practice should be carried out.

#### **12.5 Financing**

To address the challenge of NCD a financing strategy needs to be developed. This should be an integral part of the overall Health Sector Financing Strategy and include how to secure contributions from the government health budget, donor contributions, cost sharing and trans-sectoral contributions. Close collaboration with all relevant levels in the health systems, health programs and other partners is needed to maximize rational, effective and efficient usage of available resources. Special focus will be on increasing focus on the area of NCD at district level.

### **13 Cross-cutting issues**

In attempting to address the issue of NCD in Tanzania there are several cross-cutting issues that if dealt with will impact not only NCD, but the health of Tanzanians and the Tanzanian health system as a whole.

Tanzania faces the challenge of lack of human, financial and infrastructure resources as well as a high burden of CDs, especially malaria and HIV/AIDS. Training programmes for specific NCD and implementation of this strategy will need to take this into consideration and adapt measures accordingly. Existing

services, for example for HIV/AIDS, TB & Leprosy should be linked and have NCD prevention and management integrated into them.

Generally it is of major importance to take into account areas with causal interrelations between NCD and CDs e.g. in the areas of HIV/AIDS, Sexually transmitted diseases, Maternal Health, Tuberculosis and Schistosomiasis among others (see table 4).

In looking at the associated financial and other costs linked to NCD it is important to also see the impacts that these may have on poverty. Poverty and social exclusion lead to higher risks of developing a chronic disease followed by complications and death, as well as higher rates of injuries. Worldwide poor people are more likely to die after developing a chronic disease. It has been argued that the poor are also more likely to develop chronic diseases and be exposed to violence due to material deprivation and psychosocial stress, higher levels of risk behaviour, unhealthy living conditions and limited access to good-quality healthcare. This is especially true of women, as they are often more vulnerable to the effects of social inequality and poverty, and less able to access resources and thereby health services. With 35.7% of the population in Tanzania living below the national basic needs poverty line these aspects must be addressed when planning and implementing NCD initiatives.

In general women tend to delay personal health care seeking as not to impact the welfare of the household, they still have longer life expectancies than men and therefore suffer a higher burden of chronic diseases and also tend to live longer with these established diseases. Strategies implemented should therefore be both sex, age and culture sensitive.

Table 4 Relationship between Communicable diseases and Noncommunicable diseases

<b>Communicable disease</b>	<b>Related Noncommunicable disease</b>
HIV/AIDS	Kaposi sarcoma
	Cardiovascular disease
Human papilloma virus	Cervical cancer
Schistosomiasis	Bladder cancer
Maternal malnutrition	Fetal programming for diabetes
Tuberculosis	Diabetes
Reumatic fever	Cardiac valve disease
HBV, HCV, aflatoxin	Hepatocellular Carcinoma
Helicobacter pylori	Peptic Ulcer, gastric Cancer

## 14 Implementation

This National Strategy for Noncommunicable in Tanzania gives the overall guidance to the main priorities for Noncommunicable Diseases and Conditions . A detailed NCD implementation plan will outline, prioritize and set the timeline for the discrete activities to reach overall goal of this strategy.

The NCD implementation plan will base itself on existing national studies, risk factors

surveys and health system needs assessment. Recognising the broad range of conditions captured under the term NCD, strategies for addressing these individual conditions will be integrated as sub-strategies of the overall NCD strategy. Activities planned and implemented will be internationally recognized, evidence based and cost-effective interventions.