Ministry of Health,
Community Development,
Gender, Elderly and Children,
United Republic of Tanzania

EADSG NCD SYMPOSIUM
PROCEEDINGS
DAR ES SALAAM
17th -18th MARCH 2016
EXECUTIVE SUMMARY

Representatives of ministries of health, civil society including diabetes associations from 15 countries across East, Central and Southern Africa, representatives of the NCD Alliance, WHO Regional Office for Africa (WHO AFRO), African Union, World Diabetes Foundation (WDF) as well as of other national and international stakeholders and agencies, gathered for a symposium on Non-Communicable Diseases (NCDs) in Dar Es Salaam on 17 and 18 March 2016.

The objective of the symposium was to explore national approaches to the rising epidemic of diabetes and other NCDs and how to use these learnings to strengthen responses of health care systems and society at large. The symposium was also a review of the status of implementation by individual countries of the WHO Global Action Plan on the Prevention and Control of NCDs 2013-2020.

More specifically, the symposium discussed prevention of NCDs, provision of care to people living with NCDs focusing in particular on diabetes and on complications from poorly controlled diabetes, hyperglycaemia in pregnancy, and, integration of NCDs into TB care structures.

A range of presentations were made by officials from ministries of health and civil society to showcase examples of approaches from country level NCD responses.

International agencies and other key stakeholders provided updates of the conceptualization within the global framework of NCD response, first and foremost as defined through the WHO Global Action Plan on NCDs 2013-2020 and the four time-bound commitments made by WHO Member States.

It became evident during the symposium that progress has been achieved concerning NCD responses across the 15 African countries represented.

However, equally evident that much work still needs to be done. Some countries have taken important steps and others are learning from their experiences.

The symposium highlighted in particular the importance of multisectoral stakeholder mobilisation and commitment, engagement of civil society, task-shifting approaches to health system capacity building and wider resource mobilisation.

Participants expressed enthusiasm about the symposium and suggested to re-unite in a not too distant future in order to develop the dialogue and interaction modalities further and to follow up on commitments made.

The meeting concluded with the endorsement of a Call to Action document to which all participants adhered.
THE 2016 DAR ES SALAAM CALL TO ACTION
ON DIABETES AND OTHER NON-COMMUNICABLE DISEASES

WHEREAS today Non-Communicable Diseases (NCDs) - mainly diabetes, cardiovascular diseases, chronic respiratory diseases and cancers - pose a large and rapidly growing challenge to health in the world, with more than 60% of all deaths attributable to NCDs;

Whereas more than 80% of the burden from NCDs is borne by low and middle income countries;

Whereas sub-Saharan Africa NCDs are widespread and identified as barriers to health and development of peoples, nations, societies, communities and individuals;

Whereas most of premature deaths from NCDs are largely preventable by enabling health systems to respond more effectively and equitably to people with or at risk of NCDs, and, by influencing public policies also in sectors outside health that tackle shared risk factors – mainly unhealthy diet, physical inactivity, tobacco use and harmful use of alcohol;

Whereas more than half of people with diabetes are unaware of their condition due to lack of access to care, whereas more than three quarters of people with diabetes live in low and middle income countries, and whereas undiagnosed or uncontrolled diabetes leads to disabilities and premature death;

AND, WHEREAS the United Nations General Assembly High-level Meeting of September 2011 adopted the Political Declaration on Prevention and Control of Non-Communicable Diseases;

Whereas the World Health Assembly of May 2013 endorsed the Global Action Plan for the Prevention and Control of NCDs 2013-2020, and, whereas Member States agreed to set four time-bound commitments towards implementation of the Global Action Plan;

Whereas the First Meeting of African Ministers of Health jointly convened by WHO Regional Office for Africa and the African Union Commission, held in Luanda, Angola, in 2014, committed to ensure that prevention and control of NCDs and their risk factors are given the prominence they deserve and that the WHO Global Action Plan on NCDs 2013-2020 is fully implemented through the national NCD multisectoral plans, and through mobilizing resources, both domestic and external, including the use of innovative funding;

Whereas the Agenda 2063 development framework for Africa adopted by the Member States during the summit of the African Union, held in Johannesburg, South Africa, in June 2015, compel all actors in Africa to implement the first 10-year implementation plan of the Agenda 2063 and strive to ensuring healthy and well nourished citizens;

Whereas the 2030 Agenda for Sustainable Development and the Sustainable Development Goals adopted by Member States at the United Nations Sustainable Development Summit September 2015 specifically include the reduction of premature deaths from NCDs;

WE, THE UNDERSIGNED, as representatives of ministries of health, civil society, international organizations, and of other non-state actors, HEREBY DECLARE:
That we met in Dar Es Salaam on 17 and 18 March 2016 and discussed among us the status of national NCD responses at country level in East, Central and Southern Africa within the framework of the WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020 and of the four time-bound commitments;

That progress and achievements within, and barriers to, development and implementation of national NCD responses were presented and discussed, and that valuable cross-learning and exchange of knowledge took place;

That national NCD responses have reached a diversified level of implementation across our countries, however, that significant barriers must be overcome in all countries to attain the objectives and targets of national NCD responses as aligned with the objectives and targets of the WHO Global Action Plan on NCDs 2013-2020 and of the four time-bound commitments;

AND, TO THIS EFFECT WE AGREE to enhance our joint efforts, accelerating implementation of national NCD responses in our countries, with emphasis on, but not limited to, following key actions:

1. Develop, renew or refine national multisectoral NCD strategies and action plans in alignment with the WHO Global Action Plan and based on STEPS surveys and other available data and information, and on tangible achievements from countries of sub-Saharan Africa (and beyond)

2. Strengthen NCD Units within ministries of health including through establishing of NCD coordinator positions at decentralized levels

3. Establish or strengthen multisectoral national NCD steering committees under government leadership in order to ensure involvement and commitment of health as well as non-health stakeholders including, but not limited to, civil society, academia, professional societies, media, and, other non-state actors

4. Develop, renew and refine integrated NCD protocols, clinical guidelines and training and awareness material, with emphasis on capacity building at primary care and community level, and on prevention broadly perceived

5. Mobilize domestic resources and international support to initiate or expand implementation of national NCD responses as defined through multisectoral national strategies or action plans, even if through incremental or stage-wise approaches that would catalyze scale up

6. Pursue opportunities through national level consultations to promote the inclusion of prevention and control of NCDs within responses to HIV/AIDS and within programmes for maternal and child health, as well as within other communicable disease programmes such as those on tuberculosis, and, including as part of wider efforts to strengthen prevention and control of NCDs through people-centred primary health care

7. Promote, respect and empower people affected by NCDs and involve them as equal partners in the implementation of national NCD responses

8. Share knowledge and best practices, and advocate within our countries and at regional and global level for further attention to and prioritisation of prevention and control of NCDs
Endorsed in Dar Es Salaam on 18 March 2016 by following authorities, organizations and institutions:

Ministry of Health, Community Development, Gender, Elderly and Children, United Republic of Tanzania
WHO Country Office United Republic of Tanzania

Social Affairs Department, African Union Commission
WHO Regional Office for Africa

Ministry of Health Kenya
WHO Country Office Kenya
Ministry of Health Uganda
WHO Country Office Uganda
Ministry of Health Ethiopia
WHO Country Office Ethiopia
Ministry of Health Mozambique
WHO Country Office Mozambique
Ministry of Health Botswana
WHO Country Office Botswana
Ministry of Health Burundi
Ministry of Health Union of Comores
NCD Alliance
Ministry of Health Madagascar
East African NCD Alliance
Ministry of Health Malawi
Ministry of Health Mauritius
Tanzania Diabetes Association
Ministry of Health Rwanda
Uganda Diabetes Association
Ministry of Health Zambia
Diabetes Kenya
Ministry of Health Zimbabwe
Kenya Defeat Diabetes Association
Ministry of Health Zanzibar
Rwanda Diabetes Association
Lions Eye Hospital Malawi
Diabetes Association Madagascar
Baobab Health Trust Malawi
Diabetes Association Malawi
Queen Elizabeth Central Hospital Malawi
Burundi Diabetes Association
College of Medicine Malawi
Botswana Diabetes Association
Diabetes Management and Information Centre Kenya
Zimbabwe Diabetes Association
Angolan Diabetes Association (ASDA)

International Federation of Gynecology and Obstetrics (FIGO)
International Union Against Tuberculcosis and Lung Disease (The Union)

Steno Health Promotion Research Denmark

World Diabetes Foundation (WDF)
East African Diabetes Study Group (EADSG)
**BACKGROUND**

Non-communicable diseases (NCDs) have defined a changing global paradigm on health and development. NCDs - mainly diabetes, cardiovascular diseases, chronic respiratory diseases and cancers - pose a large and rapidly growing challenge to health in the world, with more than 60% of all deaths attributable to NCDs. More than 80% of the burden from NCDs is borne by low and middle income countries. In sub-Saharan Africa NCDs have gradually over the past decade become recognized as barriers to health and development. Through the past decade, a sequence of regional and continental high-level meetings and conferences has promoted the importance of addressing NCDs in Africa, where traditionally infectious diseases have been given priority.

The global NCD agenda has been marked by milestones such as the UN High-Level Meeting and Political Declaration on NCDs 2011, the launch of the WHO Global Action Plan on NCDs 2013-2020 and its global monitoring framework, the 2014 Outcome Document concerning NCDs endorsed by the United Nations General Assembly including the four time-bound commitments, and the Sustainable Development Goals (SDGs) agreed upon in 2015 which include NCDs. Recently, WHO convened the first ever Global Meeting of National NCD Programme Managers and Directors.

Governments worldwide have become more aware of the public importance of NCDs and have committed themselves to addressing the NCD burden.

A comprehensive agenda is hence building up towards the next UN High-Level Meeting on NCDs to be held in 2018.

**EADSG and the NCD Symposium**

The East-African Diabetes Study Group (EADSG) was established by leading health officials, academia and clinical experts in 2010, building on the objective of a strengthened NCD research agenda but also inspired by progress made at policy level in particular in the United Republic of Tanzania, where a national NCD response programme had been launched through a government-civil society partnership, co-funded by the World Diabetes Foundation (WDF).

In 2011 (Kampala) and 2013 (Nairobi) scientific conferences on diabetes and other NCDs were organised and hosted by the EADSG but without wider policy issues tabled and without wider presence of ministries of health, civil society and international health and development agencies.

To elevate the scope and purpose, and leveraging the emerging NCD policy agenda in Africa and globally, the EADSG approached the Ministry of Health, Community Development, Gender, Elderly and Children of the United Republic of Tanzania and WDF and proposed a larger scale NCD Symposium to be co-hosted between the three entities and to be held in Dar Es Salaam.

The two-day Symposium was held on 17 and 18 March 2016, at the Julius Nyerere Convention Centre, Dar Es Salaam, Tanzania and included eight sessions which are summarised below.
OPENING

Welcoming note: Dr Kaushik Ramaiya, EADSG
Remarks from WHO: Dr Rufaro Chatora, WHO Representative to Tanzania
Official opening: Prof. Muhammad Kambi, Chief Medical Officer
Tanzania Ministry of Health, Community Development,
Gender, Elderly and Children (Tanzania MoHCDGEC)

SESSION 1: SETTING THE STAGE

Chairs: Prof. Pierre Lefebvre, Past President, International Diabetes Federation (IDF)
Dr. Anders Dejgaard, Managing Director, World Diabetes Foundation (WDF)

WHO Global Action Plan on NCDs 2013-2020: Commitments and progress at country level -
taking next steps in Eastern and Southern Africa (ESA)

Dr Prebo Barango, Medical Officer
WHO Inter-Country Support Team Eastern/Southern Africa (ESA)

Dr Barango stated that the ESA sub-region lags behind regarding operationalised national policies and
plans and regarding the development of multisectoral NCD approaches, including NCD surveillance
systems. He noted that both domestic and international funding for NCD prevention and control is
scarce but that the inclusion of NCDs into the new SDGs could be instrumental to resource mobilisation.
Dr Barango emphasized that going forward should all stakeholders in their joint efforts focus on
effective regulation of relevant industries, on multisectoral collaboration at country, regional and
global levels including civil society and UN agencies (UNDAF framework/UNIATF on NCDs) and seek
innovative financing mechanisms. He also suggested establishing of support systems for the collection,
analysis and use of data on the magnitude, causes and consequences of NCDs in low and middle
income countries. Dr Barango noted that the 2011 Political Declaration on NCDs has recommended a
‘whole-of-society’ approach and that it is now time to move from political commitment to action.

Getting to 2018: Monitor Progress on NCDs

Dr Steven Shongwe
Regional NCD Adviser, WHO AFRO

Dr Shongwe started out by noting that annually up to 14 million people between 30 to 70 years of
age die prematurely from NCDs of who the majority are from low and middle income countries. The
causal chain for NCDs goes from underlying social determinants, via risk factors and intermediate
risk factors to manifest NCDs, and only at an advanced stage of disease do symptoms appear. Apart
from cardiovascular diseases (CVD), diabetes, cancer and chronic respiratory diseases (CRD), NCDs
include haemoglobinopathies such as sickle cell disease (SCD), mental disorders, oral health, eye and
ear diseases. These diseases pose a significant development challenge and by 2025 are expected to
be the cause of more than 55% of all mortality in Africa, if there is no adequate response.
Dr Shongwe stated that within the ESA sub-region there are a number of challenges to NCD prevention and control whereby high-impact, affordable interventions need to be prioritized and implemented. The WHO Global Action Plan on NCDs 2013-2020 offers a range of policy options and tools (WHO PEN model, guidelines and protocols etc) which countries should adapt. He added that during 2017 WHO will collect data for a new status report which by December 2017 will be submitted to the UN General Assembly as preparation for the 2018 High-Level Meeting on NCDs.

**Perspectives from the African Union: Non-Communicable Diseases**

Mr Sabelo Mbokazi, Senior Policy Officer  
Social Affairs Department, African Union Commission

Mr Mbokazi explained that health is part of Social Affairs Department and that AU has a Specialised Technical Committee on Health, Population and Drug Control. AU and WHO hold joint biennial meetings with African Ministers of Health, and AU has two specialized health institutions, the African Centre for Disease Control (ACDC) and the African Medicines Authority (AMA). The AU Conference of African Ministers of Health in 2013 was held under the theme of ‘The Impact of Non-Communicable Diseases (NCDs) and Neglected Tropical Diseases (NTDs) on Development in Africa’ whereby for the first time NCDs were discussed at this level. Mr Mbokazi further noted that the overall work of the AU on health and development is guided by a number of policy frameworks; i) the Sustainable Development Goals (SDGs) (Goal 3), ii) Agenda 2063 “The Africa we Want” (Aspiration One, Goal 3 – Healthy and well-nourished citizens), iii) AU Commission Strategic Planning, 2014–2017 (in which health is featured prominently), iv) Africa Health Strategy, 2016–2030 (where NCDs are covered), v) The Maputo Plan of Action–Sexual and Reproductive Health and Rights Continental Policy Framework 2016–2030, vi) Abuja Declaration (2013) and vii) The Catalytic Framework to End AIDS, TB and Eliminate Malaria by 2030.

Mr Mbokazi stated that African Ministers of Health jointly convened by AU and WHO in 2014 committed to ensuring that prevention and control of NCDs and their risk factors are given the prominence they deserve and that the WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020 is fully
implemented through the national NCD multisectoral plans. Recommendations are made to scale up policy dialogue on NCDs through the established AU health platforms.

Non-Communicable Diseases: the Post-2015 Development Agenda

Dr Joseph Kibachio
Head, Division of Non Communicable Diseases / Ministry of Health, Kenya (Kenya MoH)

Dr Kibachio started out by quoting the UN Secretary-General Mr Ban Ki Moon: ‘...if unchecked, NCDs have the potential of crippling growing economies; success will only come by focusing resources on people, not their illnesses; on health, not their disease’. Dr Kibachio also quoted Dr Amartya Sen (Nobel Laureate in Economics): ‘...the poorest groups not only bear higher risks for NCDs but, once they develop an NCD, they also face higher health and economic impacts. The poor have less access to medical care, allowing NCDs to progress to advanced states resulting in higher levels of mortality and disability. Given their complexity and chronic character, medical expenditures for treatment of NCDs are a major cause for tipping households into poverty’. Based on the quotes, Dr Kibachio noted that the cost of taking action against the NCD epidemic 2011-2025 had been estimated at USD 170 billion, whereas the cost of non-action for low and middle income countries (LMICs) alone had been estimated at up to USD 47 trillion. Yet, despite these facts, Dr Kibachio emphasized, in 2014 only 0.9% of official development assistance was spent on NCD prevention and control. He added that prevention of NCDs needs to move upstream and address structural issues such as education, and, that we should explore how NCDs can be integrated into other programmes. Dr Kibachio concluded that there is a need to change the paradigm from ‘20th century health care’ to ‘21st century NCD care’ and that multisectoral approaches are required.

Panel discussion and plenary debate: highlights

- The priority given to HIV control was remarkable. This was driven forward by people, by activists. Why not NCDs? Are NCD activists needed?
- Fragmentation is observed and seen as both a strength and a weakness. What can be learnt from the past work with MDGs for the future work with SDGs?
- NCD control is a long-term investment. For HIV control significant funding came from abroad but for NCDs innovative financing is needed, not donor dependence. Donor funding can catalyse and promote scale-up.
- How to use existing fiscal space to invest in disease control? Botswana as an example of taxation of alcohol and tobacco was mentioned. The challenge is that the revenue goes to many sectors. Which proportion should be earmarked to NCDs? Resource allocation should start with earmarking an allocation to disease control before a ‘sin tax’ is being applied.
- Are our health care systems prepared? Africa faces the problem of fragmented health care systems including within surveillance. Risk factors are common to all but health systems are not designed to address NCDs. What can the African authorities do about this?
- Most risk factors are outside the health sector – therefore multisectoral collaboration is needed. Communities should be engaged in the dialogue, also traditional healers.
- The role of the AU: AU is a forum where stakeholders and policy makers meet. How are experiences shared and disseminated? AU meetings on health should focus more on NCDs.
- The role of civil society is critical.
Main points from Session 1

• Understanding the international policy and action framework is essential

• Despite progress being made, many WHO AFRO region countries lag behind

• Investments in NCD prevention and control is required, including innovative domestic funding and fiscal policies

• There is a need for action and activism to give the NCD movement a stronger voice

• The importance of multisectoral approaches cannot be underestimated, and there is a role to be played for many different stakeholders at all levels in Africa, from AU to civil society

• There is a need for a paradigm change in health

SESSION 2:
NATIONAL DIABETES/NCD RESPONSES – COUNTRY PRESENTATIONS (I)

Chairs:  Dr Rufaro Chatora, WHO Representative to Tanzania
         Dr Steven Shongwe, Regional NCD Adviser, WHO AFRO

Tanzania

Dr Mariam Kalomo,
Tanzania MoHCDGEC, NCD Unit

In Tanzania, 31% of total deaths are due to NCDs (2014) and prevalence of diabetes is 9% (2012). NCD Unit within the MoH was established in 2007 and since 2010 has a national diabetes/NCD programme been implemented through a MoH-civil society partnership with the Tanzania Diabetes Association (TDA), co-funded by World Diabetes Foundation (WDF). The programmes is integral to the national NCD strategy and action plan and has so far provided capacity building within diabetes and other NCDs to more than 2,500 health care professionals from 200 district and regional hospitals covering all regions of the country. At tertiary care/referral level has advanced care been made available and integration of NCD data into existing HMIS is being implemented. Capacity building within NCDs of staff from HIV, TB and maternal care programmes has been undertaken and scaling up of the approach towards primary care level is being piloted. The NCD care provided encompasses diabetes, hypertension/CVD and basic screening for complications as well as patient education and awareness campaigns. Other NCD areas such as CRD, eye diseases, hemoglobinopathies, mental health, substance abuse, chronic kidney disease, nutrition disorders, neurologic diseases, and, NCD risk factors are also being addressed although at more limited scope so far. The national NCD strategy 2016-2020 will be launched shortly to replace and refine the current 2010-2015 strategy. The way forward includes: development of disease specific registries; updating of NCD national strategic plan with clear set of indicators; establishment of strong surveillance system that captures all data for NCDs; development of national multisectoral action plan and committee; more research on NCDs; establishment of NCD Center of Excellence; and formation of a NCD Commission.
**Kenya**

Dr Zachariah N. Miruki,  
Division of NCDs, Kenya MoH

In Kenya, 53% of hospital beds are now occupied by NCD patients (primarily due to diabetes). Essential medicines are often not readily available. In 2008 shortly after its inception the NCD Division of MoH and the national diabetes civil society agency DMI approached WDF to seek support for a national diabetes programme. Since 2009 has this programme unfolded with main objective to strengthen comprehensive, multidisciplinary diabetes care. This programme has catalyzed NCD prevention and control in Kenya and has led to the formulation of the Kenya National Strategy 2010-2015 with parliamentary endorsement. A number of other documents and guidelines have also been produced including diabetes comprehensive care manual for health care workers, national clinical guidelines for management of diabetes and other NCDs, national diabetes educators manual and diabetes prevention and management guide for community health workers. WDF has also supported various civil society organisations in Kenya.

Future plans include: integration of NCD prevention and control into the primary health care system; integration of NCD prevention and control with other programmes such as HIV/AIDS and TB; increased health promotion targeting risk factors for diabetes and other NCDs; and raised public awareness of NCDs to promote health seeking behaviour.

**Malawi**

Mr Hastings Chiumia,  
NCDs and Mental Health Unit, Malawi MoH

In Malawi, prevalence rate of hypertension is 33% and of diabetes 6% among the adult population, whereas 17% would have three or more major NCD risk factors (2010). The Malawi MoH NCD Unit is headed by the Deputy Director of Clinical Services and includes six staff members. The MoH National NCD Action Plan 2013-2016 covers CVDs including hypertension, stroke, heart attack; chronic kidney diseases; diabetes; CRDs; cancer; epilepsy; mental health and trauma and injury. Implementation of the plan has partially taken off including through programmes supported by WDF on diabetes/hypertension and with the WHO PEN model tool used extensively. Standardized integrated CPGs for NCDs have also been developed through these programmes and promote a unified way of treating patients with NCDs. Furthermore, has a Chronic Care Clinic (CCC) electronic medical record (EMR) system with the new CPGs been launched through which adherence to protocols is strengthened.

**Zanzibar**

Mr Omar Mwalim,  
Zanzibar MoH NCD Programme Coordinator

In Zanzibar, prevalence rates registered are, among others, hypertension (33%), diabetes (6%), obesity (14%) and hypercholesterolaemia (24%). Based on a combination of NCD risk factors 24.2% were found to have increased risk, and the overall NCD prevalence trend is on the rise. The MoH NCD programme was established in 2012 and subsequently various achievements have been made. The Integrated NCD Strategy and Action Plan for Zanzibar 2014-19 aims to achieve five outcomes: 1) an enhanced policy environment with regards to NCDs, 2) increased knowledge in the population with regards to NCD
risk factors and specific conditions, 3) improved delivery of NCD care at PHC units, 4) mechanisms for data collection and research projects developed, 5) timely monitoring and evaluation of the NCD programme implementation. Collaboration with HIV programme has been established. Despite the co-funding received from WDF and the notable progress made on all five objectives, huge investment is still needed and more training is essential. Next priorities are: establish multisectoral NCD committee; ensure full engagement of higher level authorities and policy makers; increase awareness on NCD risk factors across communities and schools; advocate for medicine availability especially at PHC units.

Panel discussion and plenary debate: highlights

- Integration of NCD services within PHC including HIV. How will WHO and others facilitate the integration of NCD services within PHC and HIV programmes?
- Decentralisation is the key: At PHC facilities the NCD/chronic disease care should be integrated. Vertical programmes should be avoided.
- There is a policy move towards integrated NCDs. How to ensure sustained access to services when reaching out to local level? How to integrate prevention and promotion in PHC services? How should the NCD programmes address risk factors?
- When integrating NCDs at PHC level, innovation and flexibility is required. Task shifting and mentoring modalities are essential, with focus on nurses, clinical officers (COs), medical officers (MOs) and community health workers (CHWs), since medical specialists are often unavailable at primary and secondary care level.
- Funding of health care services: Cost sharing must be introduced. Successes seen within TB, HIV and malaria programmes are due to funding from Global Fund.

Main points from Session 2

- NCDs include a broad range of diseases which should be addressed through integrated approaches
- Tanzania/Zanzibar, Kenya, Malawi stand out as examples where a lot of progress has been made and where WDF and others have played a key role to catalyze the implementation of national MoH strategies
- It is essential to avoid vertical single disease programmes and instead aim for integration of NCD prevention and control within primary health care services
- Curative and preventive services should be combined and task shifting is essential.
- Funding is a critical issue.
Countries in different stages of development and implementation of National Diabetes/NCD Programmes:

**Angola**

Dr Sabrina Coelho da Cruz,
Diabetologist, Clinical director of Angolan Diabetes Association (ASDA),
Coordinator of National Diabetes Program

The National Plan for Health Development (2012-2025) and a specific programme on diabetes/NCD care and prevention is in place. There is a partnership between the Angolan Diabetes Association and the Health Services of Armed Forces. External support is received from WDF concerning integration of diabetes screening into TB programmes. IDF and the Portuguese Diabetes Association collaborate with ASDA to strengthen patient education with activities comprising nurses training, general screening and awareness campaigns, prevalence studies.
**Burundi**

Dr François Ndikumwenayo,
Burundi NCD Alliance, MoH NCD Advisor/ Diabetes and NCD programme

DM morbidity and mortality rates are high, but not all patients receive early diagnosis, conventional treatment, education or care. For the past ten years, the NCD national programme has focused on coordination, accessibility to medicine and laboratory tests and promoting physical activity according to recommendations including through collaboration with civil society. Burundi Diabetes Association is engaged in sensitisation, training and screening of adults and children. However, the association only covers eight out of 18 provinces. The government actions on NCDs are not sufficient and care for all NCDs including diabetes is a public health challenge still not adequately addressed.

**Botswana**

Dr Dipesalema Joel,
Chairman of Diabetes Association of Botswana

NCDs strategic objectives form part of the Integrated Health Service Plan. NCDs are estimated to account for 37% of total deaths and the national diabetes prevalence (21-79 years) is 4%. The Diabetes Association of Botswana is engaged in organising diabetes support group meetings and annual diabetes youth camps, training of health care workers in diabetes, public education on diabetes and fundraising activities. While provision of care has improved and resources for preventive activities and health promotion are available to some extent, more concerted efforts are required and national multisectoral NCD structures should be strengthened.

**Union of Comores**

Dr Aboubacar Said Anli,
General Director of Health Services, Union of Comores MoH.

Key prevalence rates are: hypertension (25,4%), diabetes (4,8%), hypercholesterolemia (25,9%) and obesity (13,5%). Some important national policy documents include: National Strategy for the Fight against NCDs 2013-2015 and National Strategy for the Fight against Cancers 2010-2014. Prevention and control of NCDs include sensitisation of NGOs, establishing of a multisectoral committee, incl. for road safety, and passing of an anti-tobacco law in 2011. There are two main sources of external funding: Agence Française de Développement and WDF. Future work will aim at adopting guidelines for the NCD platform, promoting NCD research, ensuring a sustainable integration of NCD activities into the health care system and focus on preventive actions and social determinants.

**Ethiopia**

Dr Molla Gedefaw,
Federal MoH NCD Coordinator.

Ms. Misrak Tarekegn,
Program Manager, Ethiopian Diabetes Association
Prevalence rates of diabetes and hypertension are 6% and 16% respectively, and more than 90% of the population would have at least one modifiable risk factor. Currently, MoH is producing a number of documents including National Strategic Action Plan for NCDs, a National Cancer Control Plan, and national NCD treatment guidelines following WHO PEN. A Multisectoral Action Plan will also be initiated soon. To make medicines available at affordable prices, the MoH has signed MoUs with pharmaceutical companies. The principle of task sharing is important, and therefore capacity building at PHC level is imperative. Alongside with these initiatives, awareness raising and initiation of monitoring and evaluation will be embarked on. The Ethiopian Diabetes Association (EDA) was established in 1984 and has 20,000 members. The goal is to ensure full government involvement in sustainable diabetes care and prevention at national level. Funding is a limiting factor and domestic and international resources must be mobilised, including scale-up of existing WDF supported pilot projects.

**Madagascar**

Dr Henri Raharivohitra,  
National NCD Programme, MoH Madagascar

Prevalence of diabetes is estimated to be 4% of adult population though only a minor group hereof has been diagnosed. Prevalence of hypertension is 36% and stroke is the leading cause of mortality among adults hospitalised. Some milestones have been achieved including the establishing of a NCD department within the MoH (2003), STEPS survey (2005), development of National NCD Policy (2006), development of NCD guidelines for prevention and care in the primary health care (2007) as well as various training activities. Technical and financial support is received from WHO and WDF. Future challenges will be to achieve coverage of diabetes/NCD care across all 22 regions including through integration of NCDs at PHC level and soliciting attention on NCDs at highest policy levels.

**Mozambique**

Dr Edite Thuzine,  
MoH NCD Department,  
Dr Armando Tiago,  
Diabetes Association Mozambique (AMODIA),  
Dr Raquel Mahoque,  
WHO Country Office.

CVDs are the 4th leading cause of mortality with a hypertension prevalence of 35%; diabetes prevalence is 4%. Health sector response so far comprises following key achievements:  
2) NCD Management tools: Guidelines are being formulated for management of cervical and breast cancer, hypertension and cardiovascular diseases at various levels of the health care system. In addition training manuals to build capacity of the districts on management of NCD at primary health care and to promote anti-alcohol and anti-tobacco activities at schools.
Rwanda

Dr Simon Pierre Niyonsenga,
Rwanda National NCD programme

The health care system in Rwanda is organised in four tiers with NCDs being integrated at all levels. The number of patients seen for NCDs in OPDs is rapidly increasing. Key achievements are: NCD policy; NCD National Strategic Plan; NCD guidelines and protocol; development of home-based care practitioners; STEPS survey; community-based insurance scheme; decentralised NCD management at PHC; NCD new indicators included in HMIS; capacity building; involvement of civil society in decision making; research collaborations; HPV vaccine for teenagers.

Uganda

Dr Ann R. Akiteng,
NCD Programme, MoH Uganda

There is a rising trend on NCD mortality and morbidity and related risk factors – the main being cancer, CRD, CVD, diabetes and SCD. The prevalence of diabetes is 4% but a large majority is not receiving medication or even diagnosed. The mean age for diabetes diagnosis is 35 years and 10% of adults have three or more risk factors. A NCD prevention and control programme was launched in 2008 but is still quite fragmented within the MoH, although some services are established at the different levels of care. Funding is limited for NCDs in general. The MoH will focus on prevention, early diagnosis, cost-efficient treatment and awareness raising, and also seek to revise existing HMIS in order to improve regular reporting on NCDs, revision of essential medicine list. Multisectoral collaboration and partnerships are not well developed in Uganda and must be prioritised.

Zambia

Dr Luneta Mbinga,
Diabetes Association of Zambia

The National NCD Strategic Plan aims to reduce the burden of preventable morbidity, disability and premature mortality due to NCDs, however implementation has so far been limited. The diabetes association works to reduce risk factors through behavioural change and through public sensitization, to advocate for people living with diabetes, strengthen counselling, contribute to data generation incl. through research. With support from WDF the association is currently implementing public sensitization, training of counsellors, training of youth and women, training of health care workers, establishing diabetes clinics, conducting a survey in selected districts. Looking ahead, the emphasis will be on scaling up advocacy and public sensitization, school education programmes, strengthened collaboration with partners.

Zimbabwe

Dr Milton Chemburu,
MoH Zimbabwe

Estimated at least a quarter of a million people are assumed to have diabetes out of whom 70% are
undiagnosed. Thus, poor awareness and late diagnosis is a challenge leading to risk of diabetic foot complications (estimated 30% of cases). NCDs including cancer, CRD, CVD and diabetes as well as hypertension are on the rise, rapidly. In relation to cancer control progress is being made including: strategy development, ratification of Framework Convention on Tobacco Control, human resource development, preparation for HPV vaccine roll out in 2017. There is an on-going process to develop a national MoH NCD strategy document. The current systems and structures for diabetes care are not well monitored and evaluated. Zimbabwe Diabetes Association collaborates with MoH and has local branch offices in each of the eight provinces.

Panel discussion and plenary debate: highlights

- The role of civil society: Civil society must hold governments accountable including through constant sensitisation (multisectoral mechanisms).
- Health workers should accept task shifting modalities.
- Who should the NCD alliances work with? How can they be supported by authorities/MoH?
- Multisectoral NCD collaboration can require different combinations of ministry involvement. WHO should use all opportunities to raise the issue and promote multisectoralism.
- Multisectoral NCD Commissions: WHO Member States have committed themselves to establish high-level and broadly oriented commissions: A brief round of verification among the country representatives and participants at the Symposium revealed that only one out of the 15 participating countries had established a Multisectoral NCD Commission.
- Countries are urged to develop and implement action plans in line with WHO Global Action Plan on NCDs. Can WHO give advice to and guide the governments better?

Main points of Session 3

- Only one out of the 15 countries represented at the symposium has a national multisectoral NCD committee in accordance with the WHO Global Action Plan on NCDs 2013-2020 and the four time bound commitments
- Several countries are in the process of passing relevant legislation and making guidelines
- There are various examples of collaboration between MoH and civil society (including patient associations and professional societies)
- A few countries have made notable progress in terms of implementation of national NCD strategies and action plans and have strengthened their NCD divisions, however majority of countries have only recently established such divisions and have only made limited progress in terms of development and implementation of national NCD responses
SESSION 4: PREVENTION OF NCDs

Chairs: Ms Katie Dain, Executive Director, NCD Alliance  
Dr Joyce Nato, WHO Kenya Country Office

NCDs and Sustainable Development: The Role of Civil Society

Ms Katie Dain,  
Executive Director, NCD Alliance

The role and status of civil society would comprise three main areas: 1) advocacy (making the case, building a social movement influencing ‘policy windows’), 2) service delivery (care, prevention), and 3) accountability (benchmarking policy progress, monitoring industry).

Presently, a changing landscape of civil society activities is observable including through a notable growth in number and diversity of CSOs, through greater influence in shaping local/global agendas, through growing mobilisation of alliances, and, through increasing resources channelled through CSOs. The political context for the work of CSOs is also changing – a trend from global to national and towards NCDs as part of the SDGs. The SDGs focus on implementation and NCDs are explicitly addressed in Goal 3, but other Goals are of relevance to NCDs. The SDGs constitute an opportunity for advocacy. Member states have made the four time-bound commitments in accordance with UN Review on NCDs (2014). WHO progress monitoring on NCDs (2015) showed that only 33% of countries worldwide had NCD policies and plans and 31% countries had set national NCD targets. We are at a historic cross road moving to the Third High-Level Meeting on NCDs in 2018.

Prevention and control of noncommunicable diseases in East Africa

Prof. Gerald Yonga,  
Chair, East African NCD Alliance

NCDs account for 60% (35 million) of global deaths and the four modifiable behavioural risk factors account for 80% of the cases of NCDs. The EAC region countries undergo a nutrition transition and observe both under- and over-nutrition. The prevalence rates of obesity in adults over 18 years of age are: Kenya 12%, Tanzania 7.1%, Uganda 4.9% and Rwanda 4%. Women have higher prevalence rates of overweight and obesity especially in urban areas. The world is witnessing rapid shifts in dietary patterns: larger numbers of meals are eaten outside home, staple foods are becoming more refined and processed, sugar, fat and salt intake is increasing, processed foods are consumed more than before. Risk factors influencing diet go beyond behaviour and include agricultural practices and policies, availability and prices of healthy food, food labeling and marketing activities.

Some urgent steps are needed: national and regional comprehensive NCD policies and action plans; enact and implement supporting legislations (tobacco control, access to healthy foods, alcohol control, enhanced physical activity); resource allocation to NCD departments, NCD action plans and multisectoral governance structure; health care system strengthening for NCDs; from silos of disease blocks to comprehensive focus on population health needs; primary care packages for NCDs; research evidence and models for cost-effectiveness of screening and intervention models. It is essential to consider health as part and parcel of human development agenda. Multisectoral planning and a whole-of-government approaches are needed. The East African Civil Society NCD Charter (2014) has been formulated.
National diabetes primary prevention programme (School Health Programme)

Ms Elizabeth Bonareri,
Director of Programmes, Association of Private Health Facilities of Tanzania (APHFTA)

APHFTA is an umbrella organisation for private health care institutions in Tanzania registered in 1994 as an NGO and with more than 750 private facility members. In partnership with ministries and civil society organizations, and with financial support from WDF, APFHTA is currently implementing a 3-year project together with Tanzanian education and health authorities. The overall goal is to improve efforts towards diabetes/NCD primary prevention through strengthening of the National School Health Program (SHP), a Program which for a number of years had been given limited resources. The project is implemented in Lake Zone region as a first pilot phase and is co-implemented with national, regional and district level authorities. Immediate beneficiaries are primary school children, people with diabetes and community members. A baseline survey showed that 86% of the targeted schools had a health education programme, but none of them offered lessons on NCDs including diabetes. None of the surveyed schools had a curriculum which covered NCDs, and teachers in general did not know about NCDs and prevention. Thus, NCDs were not priorities in the existing SHP. Resources towards prevention aimed at the four risk factors i.e. unhealthy diet, physical inactivity, alcohol abuse and smoking have generally been limited within the SHP.

Through the project interventions, children may become community ‘change agents’ and activities include parents, siblings and community members. Relevant screening is also done at community level and the project includes a ‘t0t’ component reaching out to food vendors at schools and to health care providers from local clinics. The project represents a great opportunity for NCD prevention and will be showcased towards national replication.

Panel discussion and plenary debate: highlights

- Funding towards prevention programmes are very limited.
- Civil society organisations rarely take part in budgetary processes.
- Multiple mechanisms including the revenue from ‘sin taxes’ could be pursued with funds for prevention and control of NCDs to be promoted as an investment.
- Embrace the youth and get them to provide new dynamics and find different solutions. Share examples across the region, youth groups and organisations are many and they are active in various fields.
- Involvement of CSOs - do we do the work of governments or do we hold governments accountable? CSOs can influence governments but are we too polite? How to combine advocacy and accountability with government partnerships?
- We work for access to medicine through advocacy. Patient associations show the human face (of the diseases) to government. How do we mobilise patients better?
- A strong and persistent voice must be held by civil society.
- Should CSOs get out of the comfort zone and engage in research?
- Governments need evidence based approaches.
- We should not forget the corporate world (private sector). Media companies provide airtime and newspapers provide columns. This is linked to corporate social responsibility.
- CSOs must collaborate, not compete.
Main points of Session 4

- CSOs play a crucial role in advocacy towards NCDs especially in relation to governments
- Civil society influence and commitment could be elevated through multisectoral NCD structures under government leadership which in many African countries do not yet exist
- The NCD Alliance provides strong support to national level alliances
- The project in Tanzania implemented by APHFTA together with education and health authorities is a notable example of engagement by civil society in primary prevention of NCDs
- Mobilisation of various other stakeholders such as private sector is essential, but collaboration among the CSOs themselves could be strengthened
- The work of civil society needs to be more dynamic, and inclusion of new groups including youth is essential

SESSION 5: DIABETES FOOT CARE IN AFRICA

Chairs: Prof Andrew Swai, Tanzania Diabetes Association
        Dr Anders Dejgaard, Managing Director, WDF

Diabetic foot care

Dr Zulfiqarali G. Abbas,
Abbas Medical Centre, International Working Group on Diabetic Foot (IWGDF)

Across the globe 40-60% of all non-traumatic amputations are due to diabetes. In 2014 an amputation due to diabetes took place every 20 seconds. The pathogenesis depends on a complex interplay of various factors including diabetic peripheral neuropathy (DPN), peripheral arterial disease (PAD), neuro-ischemia and infection. The five cornerstones for prevention are: 1) training of health care workers, 2) regular examination of the feet, 3) identification of high-risk diabetes patients, 4) education of patients and their family, 5) appropriate footwear, 6) treatment of non-ulcerative pathology. Based on funding from WDF, the ‘Step-by-Step’ foot care approach (originating in India and Tanzania) targeting health care professionals has been implemented in Tanzania and has been replicated in several countries in Africa. Comprehensive diabetes foot care consists of three levels; basic level including regular feet examination and patient education, most often conducted at primary/secondary health care facilities by nurses; intermediary level including wound care, dressing and debridement and hence curative services to heal ulcers, most often conducted at secondary/tertiary care facilities by nurses, medical officers; and, advanced level including limb-saving surgeries and complicated ulcer treatment, most often conducted by surgeons, physicians at tertiary care level.
Country case example: Kenya

Ms Eva Muchemi,
Exec.Director, Diabetes Management & Information Centre (DMI), Kenya

15-25% persons living with diabetes will develop a foot ulcer during their lifetime and they experience lower limb amputation at a rate 10-30 times that of the general population. The Step-by-Step programme is being implemented in Kenya as a result of projects funded by WDF, co-implemented by DMI, Kenya MoH and other stakeholders. The overall aim is to improve diabetes foot care and to build linkages from clinics to communities. Lessons learnt are: podiatry and specialist foot care services are essential components in limb salvaging, combined with empowered community on knowledge in diabetic self foot care; improved interdisciplinary team approach is possible; lack of rehabilitation services for diabetic foot (footwear, artificial limbs); resistance to change in the concepts of foot care. The programme has improved the knowledge transfer into practice and promoted a new approach to diabetes foot care unprecedented in Kenya.

Country case example: Malawi

Ms Rejoice Kachapila,
Queen Elizabeth Central Hospital (QECH), Blantyre

Ms Marrianne Kasiya,
College of Medicine, Blantyre

In 2013, Ms Kachapila attended a WDF funded six-week training course at the Abbas Medical Center, Tanzania. Afterwards, a nurse-led foot care intervention clinic was established at QECH (tertiary care hospital). Ms Kachapila and colleagues carry out assessment of patients’ feet on average twice a year including neuropathy, PAD, deformities and ulcers. As a result the amputation rate has been reduced from 20 to 5 cases per year. It was necessary to strengthen referral pathways whereby patients were not automatically referred to a surgeon, since this would often lead to too many amputations which could have been avoided. A curriculum and an education programme have been developed, and health care providers have been trained, mainly from the Southern Region of Malawi both from within Blantyre urban area and from referral clinics and district level hospitals.

Panel discussion and plenary debate: highlights

- Surgeons are few and usually based at referral hospitals; Surgeons are often reluctant to new approaches.
- The role of clinical officers and nurses is essential in African health systems since they are able to take on many responsibilities, e.g. in the Kenyan project example many of the targeted professionals are nurses supported by orthopaedic assistants.
- The surgeons need to buy in whereby nurses take on a stronger role, and task shifting and task transfer is key. Referral systems between nurses and surgeons must be in place.
- Clinical aspects: The only indication for amputation is PAD. Vascular surgeons are rarely found at hospitals and patients may have to go to India or South Africa which is very expensive. Once a patient has PAD there is no need to delay amputation. PDN cannot be treated, only prevented.
- The success of the projects in Malawi and Kenya are due to mobilisation of diabetes patients.
**Main points of Session 5**

- A well-functioning foot care system has a huge potential in preventing amputations
- Task transfer from the very few surgeons located at central hospitals to clinical officers and nurses is essential
- In an African context only PAD is a reason for amputation
- Education, training and involvement of patients are essential aspects

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**SESSION 6: DIABETES AND EYE CARE IN AFRICA**

Chairs: Dr Bernadetta Shilio, Tanzania MoHCDGEC / NCD Unit  
Dr Silver Bahendeka, EADSG

**Diabetes and Eye Care in sub-Saharan Africa**

Dr Mukesh Joshi,  
Consultant Ophthalmologist, Laser Eye Centre, Kenya

All forms of diabetic eye disease have the potential to cause severe vision loss and blindness due to cataract, PDR, diabetic macular edema and glaucoma. Challenges in eye care in sub-Saharan Africa are: limited resources and inadequate infrastructure; health systems poorly organized to deliver chronic care with multiple system involvement; specific skills and resources needed to manage DR are scarce; and lack of protocols and equipment. Focus should be on early diagnosis and treatment, incl. screening with emphasis on evaluation of retina and macula.

**Country case example: Malawi**

Dr Moira Gandiwa,  
Ophthalmologist, Lions Eye Hospital, Blantyre Malawi

Lions Eye Hospital in Blantyre is the largest eye hospital in Malawi and serves as referral hospital for eye care in Malawi Southern Region. Based on support from WDF, NCD clinics have been established at 21 district hospitals. The activities include training of health care professionals and procurement of equipment, all integrated into public health care. At present the eye clinic sees 600-1,000 patients per year incl funduscopy and integrated with the NCD services. Patient advocates are associated to the clinics and a referral system is established. There is a collaboration in place with Diabetes Association of Malawi, and support being given to the integration of DR services at district level. Routine screening and treatment of SDR is not only about having laser equipment or trained ophthalmologists, such capacity must be anchored into the overall patient flows. Future challenges are to develop screening services in the district including supplementary training of ophthalmic clinical officers (OCOs), purchase of portable fundus cameras and establishment of mobile laser clinics to overcome patients’ transport challenges and late presentation.
Country case example: Tanzania

Dr Nkundwe Mwakyusa,
Program Manager, Tanzania MoHCDGEC Eye Care Program

A survey was conducted in 2015 with the purpose of estimating the level of cooperation between diabetes management in general and diabetic retinopathy in particular. A number of barriers were identified. Awareness about diabetes related ocular complications is very limited and continuous medical education is needed. The hospitals have limited access to modern examination technology. The HMIS has low reporting rates and does not capture NCD complications. There is scarcity of human resources. The national plan targeting to increase number of specialists does not prioritise ophthalmology. There should be a focus on mid-level cadres of health care staff and training should be more differentiated.

Panel discussion and plenary debate: highlights

- How to integrate diabetes/NCD related screening and care into eye care programmes?
- How can data on eye complications be captured? The tools are there to integrate data collection into the HMIS. Other country examples were discussed, incl Zanzibar and Ethiopia.
- Ophthalmology requires significant investment due to the need for advanced technology.

Main points of Session 6

- There is a huge need to initiate screening for diabetes and hypertension related eye complications.
- Given that there are few trained ophthalmologists and that advanced technologies especially for treatment are expensive it is essential to: 1) invest in new lower cost technologies and methodologies; 2) strengthen HMIS systems, and; 3) explore ways in which tasks can be conducted by lower cadres of health care workers.
SESSION 7: MATERNAL CARE - HYPERGLYCAEMIA IN PREGNANCY

Chairs:  
Dr Sarah Maongezi, Tanzania MoHCDGEC  
Dr Hema Divakar, Intl. Federation of Gynecology and Obstetrics (FIGO)

Hyperglycaemia in pregnancy. The global perspective - new FIGO document: capacity building in low-income settings

Dr Hema Divakar,  
Federation of Obstetrics and Gynecological Societies of India (FOGSI)

In Africa, more than two thirds of people with diabetes are undiagnosed and there are indications of a rising trend in diabetes among pregnant women and hence increased risks of adverse pregnancy outcomes and long term risk for developing diabetes. Obstetricians and ante-natal/maternal care should be much closer integrated with diabetes/NCD care. The term Hyperglycaemia in Pregnancy (HIP) should be used instead of the former Gestational Diabetes Mellitus (GDM). Global estimates indicate 21 million HIP cases per year and India alone has an estimated five million HIP cases per year out of a total of 30 million pregnancies, although many are not diagnosed. In general more than 50% of women with HIP would develop type 2 diabetes within 5-10 years after delivery.

FIGO has released a new document concerning HIP: ‘Pragmatic Guide for Diagnosis, Management and Care’ (2015). It provides approaches to screening, diagnosis and management of HIP for all countries and regions adaptable to resources and infrastructure available. FIGO recommends universal screening of pregnant women using a one-step procedure and promotes capacity building, multi-tasking by obstetricians, pre-conception care and awareness as well as post-delivery follow up.

Epidemiology of hyperglycaemia during pregnancy in sub-Saharan Africa: A review

Dr Akwilina Mwanri (PhD),  
Sokoine University of Agriculture, Morogoro, Tanzania

A systematic review (Mwanri et al. 2015) was conducted including 22 studies out of which six were from sub-Saharan countries. Studies on prevalence and risk factors for HIP in sub-Saharan Africa are very few; difficult to compare prevalence across the regions; some women with HIP might have had type 2 diabetes undiagnosed before pregnancy; modifiable risk factors are overweight and obesity; lifestyle interventions targeting women before conception should be strived for; cost-effective standardized screening method (e.g. single step used in India); further studies on costs for HIP screening, diagnosis and management are needed; qualitative studies needed focusing on women’s perception after diagnosis and their attitude towards behaviour change.

Panel discussion and plenary debate: highlights

- FIGO diagnosis criteria is the same as WHO, but the new FIGO guidelines provides four different approaches for low-resource settings and according to screening methods preferred by countries.
- Screening at advanced stage of pregnancy may be too late for the baby who may already be macrosomic.
- How do we get preconception interventions? With reference to previous Symposium presentation on primary prevention in schools or colleges, maybe secondary schools could be addressed?
Main points of Session 7

- HIP is an unrecognized health issue which affects pregnancy outcomes and leads to increased risk for future type 2 diabetes for both woman and child

- The new FIGO guidelines recommend universal screening based on a non-fasting, one step 75g OGTT ideally done in week 22-24 of gestation

- As the ideal multi-team approach is not always feasible it is essential to involve obstetricians, and also midwives

- The potential of pre-conception intervention should be explored

- Integration of NCDs into maternal and child care/ante-natal care should be a high priority to health authorities

SESSION 8: HOW TO ABSORB NCDs INTO TB CARE STRUCTURES

Chairs: Dr Mariam Kalomo, MoHCDGEC Tanzania NCD Unit
        Prof Theonest Mutabingwa, Tanzania National TB Programme

TB and diabetes: the global perspective. Implementation of the WHO/The Union collaborative framework on tuberculosis and diabetes

Dr Ajay Kumar,
Deputy Director (Research), The Union, India

The link between TB and diabetes is important. Studies have shown that diabetes increases the risk of TB by a factor two to three. Diabetes leads to poorer TB treatment outcomes, whereas enhanced case management of diabetes improves treatment outcomes and reduces risk of death during TB management. It is obvious to compare the relationship between TB and diabetes with that of TB and HIV. The mechanisms are similar. The main difference is that the relative risk is lower for TB-diabetes than for TB-HIV. Numerically the TB-diabetes relationship is still important as there are substantially more patients with this co-morbidity than with TB-HIV. A document entitled ‘Collaborative Framework for Care and Control of TB and Diabetes’ (2011, WHO/The Union) includes a number of recommendations for bidirectional screening. The Bali Declaration (The Union/WDF et al) from November 2015 highlights the diabetes and tuberculosis co-epidemic. Recently two directives were issued in India to the effect of bidirectional screening. Diabetes doctors and nurses are generally not interested and there is no structured recording system at diabetes clinics. In contrast to TB, NCD programmes are not yet rolled out at primary care level. The rapidly growing diabetes pandemic may threaten the success of the ‘End TB’ strategy. We have global collaboration, but we need more country-level action.
**Country case example: Nigeria**

Dr. Anthonia Ogbera, 
Lagos State University College of Medicine, Nigeria.

A study on the prevalence of diabetes among TB patients in Lagos has been funded by WDF. The objectives were: 1. To determine the burden of diabetes in persons with TB; 2. To compare the occurrence of diabetes in persons with TB to that of persons without TB; 3. Characterization of TB and diabetes in persons with both diseases; and 4. Determine the possible predictors of diabetes in persons with TB. The study examined 4,000 persons with TB from 56 TB/DOTS clinics in Lagos. A total of 12% of the TB patients had DM - out of whom 64% new diagnosed. Discussion: 1) Not every patient with diabetes should be screened for TB; 2) Every person with TB should be screened for diabetes; 3) Uncertainty as to what point in time persons with TB should be screened for diabetes; 4) It is cost-effective to screen TB patients for diabetes.

**Panel discussion and plenary debate: highlights**

- TB control programmes are generally well consolidated and funded whereas diabetes/NCD programmes do not have full coverage and have weaker recording systems.
- Recording tools need to be harmonised preferably through electronic medical record systems. Operational research is an important tool to guide the process. The rationale for diabetes screening among TB patients is recognised but the reverse is not.
- Whereas the relationship between TB and HIV is well described, the link between diabetes and HIV is less clearly understood. Some HIV medication can set off diabetes especially in patients with risk factors.

**Main points of Session 8**

- Integration: Whereas TB control programmes have systems in place and are often capable and willing to include screening for diabetes, diabetes/NCD control programmes seem less prepared to include TB screening.
- It is still a developing field but integration of diabetes/NCD into TB programmes should be pursued.
- For screening to be justified the prevalence of the diseases should be significantly higher among the patients than in the background population.