

## **IMPROVING ACCESS TO CARE FOR DIABETES AND OTHER NON-COMMUNICABLE DISEASES IN MWANZA REGION.**

### **BACKGROUND:**

Febrile illness, HIV/AIDS and TB constitute major causes of morbidity and mortality in the urban and rural population in Tanzania. However, NCDs incl. hypertension, diabetes and asthma are also important causes of morbidity and mortality. With improvement in control of infectious diseases in combination with ageing there is an increase in the proportion of the burden of morbidity and mortality related to NCDs. The control of NCDs is vital in reducing morbidity, mortality and disability which may occur as a result of complications of NCDs.

McLarty et al (1989) in a survey in rural populations of Tanzania found an overall age adjusted prevalence of diabetes and impaired glucose tolerance as 1.1% and 8.4% respectively. The Adult Morbidity and Mortality project (AMMP) in its phase 1 report estimated that in 1984 there were 9,000 people with Type 1 diabetes and 84,000 people with Type 2 diabetes. The report projected that these numbers would increase more than threefold to 31,000 and 276,000 by year 2000. In 1997, a study conducted in Dar es Salaam indicated that prevalence of diabetes in urban areas had reached 5.7%.

Prior to the implementation of WDF02-031 "Access to Care" diabetes was mainly managed at tertiary and a few secondary health care facilities. At present, diabetes care at regional level has been significantly strengthened with diabetes clinics having been established at in 25 out of Tanzania's 26 regions. In Mwanza Region, 2 clinics have been supported at the secondary (Sekou Toure Regional Hospital) and tertiary level (Bugando Referral Hospital; referral hospital for the entire Lake Zone).

At district level, however, health facilities remain ill-equipped to diagnose and provide basic care for diabetes, resulting in low diagnosis rates

### **PROBLEM ANALYSIS**

The Regional Medical Officer (RMO) and District Medical Officers (DMOs) in Mwanza Region in Northern Tanzania have requested the assistance of the Tanzania Diabetes Association (TDA) to strengthen the capacity for diabetes care.

The project seeks to develop and test an innovative, holistic and cost-effective model for strengthening the quality of diabetes care from primary to tertiary level and raising public awareness of diabetes, its risk factors and prevention. The model will be implemented and tested in the first instance in Mwanza Region with view to possibly expanding implementation to the entire Lake Zone in a second phase.

The project will be co-funded by Danida and falls under the MoU between WDF and Danida. Danida has not previously allocated resources towards diabetes care in Tanzania, but finds the proposed approach innovative and interesting while also addressing an expressed need from the region.

The project builds upon the approach developed by TDA and experience gained during the implementation of the WDF-funded WDF02-031 "Access to Care" project. That project has established diabetes care within the Ministry of Health (MoH) structures at regional level in 25 out of Tanzania's 26 regions.

This project seeks to build upon these established structures, while at the same time strengthening the system further by:

- 1) Determining baseline data to provide policy makers with appropriate data for efficient planning and budgeting.
- 2) Bringing diabetes care to the primary care level and strengthening secondary and tertiary levels.
- 3) Establishing appropriate and effective referral system from primary over secondary to tertiary level.
- 4) Strengthening community awareness and involvement in the process to enable early diagnosis and prevention of diabetes and its complications.

TDA will act as implementing agency whereas the MoH and participating NGOs/private practitioners will be the owners of the capacity built.

Sustainability will be ensured by full ownership of activities by MoH. The capacity being built is fully integrated into the public health system as all staff and facilities are provided by the participating health facilities.

The project draws upon the results and experience from a number of WDF funded projects, including Diabetes Practice Guidelines (WDF02-007), Diabetes Education Manual (WDF02-006), Access to Care (WDF02-031), Step-by-Step (WDF03-056) and Cameroon Burden of Diabetes (WDF02-016).

## **PROBLEM STATEMENT**

Strengthening diabetes care was identified by the 7 District Medical Officers and the Regional Medical Officer in Mwanza Region as a key priority area for the region.

The project activities are implemented within MoH structures, ensuring immediate integration into the regular activities of the involved facilities.

The trained HCP staff will be obligated to train their peers and colleagues in their health facilities to make the capacity built less vulnerable and sensitive to transfer of staff.

While the project provides the training and basic tools/equipment, the health care facilities cover the running cost of staff, maintenance, supplies etc.

The project will draw upon experience and results of several WDF funded projects including:

- WDF02-006 "Diabetes Education Manual" and WDF02-007 "Diabetes Practice Guidelines" using the two manuals/guidelines in the health facilities and in education sessions
- WDF02-031 "Access to Care", drawing upon the model developed by the project for establishment of sustainable diabetes clinics. Also, the curriculum/training package developed by "Access to Care" will be applied in the project.
- WDF03-056 "Step-by-Step", using the curriculum, teaching tools, education material and expertise of the Tanzanian component of the project. Dr. Abbas will be involved in the faculty for this project regarding building capacity for treating the diabetic foot.
- WDF02-016 "Burden of Diabetes in Cameroon" has developed some excellent education and awareness material which may be adopted and applied in this project.

In addition, the project will build upon Danida's long standing support to the health care system in Mwanza Region. Danida will be placing a technical advisor in Mwanza at the RMOs office. This advisor would be in a position to follow the implementation of the activities.

Traditionally, Danida's support to the health sector in Tanzania has primarily focused on HIV/AIDS, Malaria and TB. By engaging in this project, Danida is recognising that NCDs are representing an increasing problem in the country. As Danida is the lead donor to the health sector in Tanzania, this is an important first step towards increased donor attention and support towards NCDs.

## **JUSTIFICATION**

The project will draw upon the diabetes clinic model developed and tested by Tanzania Diabetes Association (TDA) as well as the lessons learned during the implementation of the WDF funded project "Access to Care". That project has established diabetes care within the MoH structures at regional level in 25 out of Tanzania's 26 regions.

This present project application seeks to build upon these established structures, while at the same time strengthening the system further by:

- 1) Determining baseline data to provide policy makers with appropriate data for efficient planning and budgeting.
- 2) Bringing diabetes care to the primary care level and strengthening secondary and tertiary levels.
- 3) Establishing appropriate and effective referral system from primary over secondary to tertiary level.

- 4) Strengthening community awareness and involvement in the process to enable early diagnosis and prevention of diabetes and its complications.

In other words, a holistic and cost effective approach to diabetes care in a low income setting, which may subsequently be replicated by the MoH to other parts of the country.

In the first phase the target area will be 1 region (Mwanza Region) with a view to expanding the approach to the entire Lake Zone (5 regions in total) in a second phase subject to the success of phase 1 as well as indications of willingness and commitment by the regional and district authorities in the remaining 4 regions. The latter would come in a separate application following an end of project assessment of the approach and needs for adjustment.

Mwanza Region consists of 7 districts (including Mwanza) and has a population of appr. Three million people. It has been selected as the pilot region as 1) the local authorities have already identified improvement of diabetes care as a key priority area in their planning process, 2) Mwanza city has secondary and tertiary level health care facilities with the tertiary care level hospital being a zonal referral hospital for the entire Lake Zone and 3) "Access to Care" has established basic diabetes care at the secondary and tertiary health facilities in Mwanza City.

The focus on the Lake Zone in general is a result of Danida's geographical focus of its support to the health sector in Tanzania.

The key institutions involved in the project are:

- Tanzania Diabetes Association – as implementing agency
- MoH at regional and district level – as owners of the activities/process
- NGO hospitals/private practitioners – as owners of the activities through public/private collaboration.
- Mwanza zonal training centre – providing the training for all health care personnel involved in the project
- Community groups, churches and schools – organising and participating in awareness events
- Danida – as co-funder
- WDF – as co-funder

## **OBJECTIVES**

### **Project goal**

Developing and testing a holistic and cost-effective model for strengthening the quality of diabetes care from primary to tertiary level and raising public awareness of diabetes, its risk factors and prevention.

The model will be implemented and tested in the first instance in Mwanza Region in Northern Tanzania with view to possibly expanding implementation to the entire Lake Zone in a second phase.

## **Project objectives**

1. To determine the baseline prevalence in the target area using the WHO Steps approach to provide policy makers and planners with the requisite information to plan and budget for long term investments in the care of non-communicable diseases.
2. To raise public awareness of diabetes, its symptoms, risk factors and prevention to increase early diagnosis and prevention of diabetes in the first instance and complications in the second instance.
3. To establish an effective system of diabetes care by:
  - a. Strengthening capacity for care at each level of the health care system (primary, secondary and tertiary levels) through training and provision of essential tools and material to enable early diagnosis and proper treatment.
  - b. Establishing an effective referral system to ensure that patients are diagnosed and provided with good quality care at each level *and* that health care personnel at each level knows when to refer patients to the next level to decrease the level of serious/fatal complications.