DIABETES PREVENTION AND CONTROL IN PAKISTAN

FOURTH NATIONAL ACTION PLAN 2005 - 2009

1. INTRODUCTION

1.1 Considerable changes in disease pattern are taking place in developing countries. While the prevalence of infectious diseases and nutritional deficiencies is progressively declining, a concomitant increase is noted in the prevalence of chronic non-communicable diseases (NCD). Example of such diseases are cardiovascular diseases, diabetes mellitus and cancer.

This epidemiological transition is now clearly seen in the Eastern Mediterranean Region. Factors contributing to the speed of this change include rapid socioeconomic development and the associated changes in life-style characteristics. Obesity has become more prevalent; food energy availability has generally risen beyond requirements with a trend towards increased sugar consumption in most Member States.

Improvement in health care services has also led to control of infectious causes of mortality and better diagnosis of non-communicable diseases. Increased longevity is another important factor that is contributing to the increase in the occurrence of non-communicable diseases; life expectancy has been progressively increasing over the last thirty years in the Region, reaching in some countries figures which are similar to those seen in the industrialized world.

Analysis of the available data in the Region demonstrates the high susceptibility of some Eastern Mediterranean populations to Type 2 diabetes and confirm the importance of diabetes in the Region. Additionally, cardiovascular diseases (CVD), a major complication of diabetes has now become the leading identifiable cause of death in some countries. Other diabetic complications are already major causes of morbidity, disability and premature death. Hospital based data confirm this trend and also indicate premature morbidity and mortality from this group of diseases.

Despite the high prevalence of diabetes and its complications, there is a striking lack of organized programmes designed to prevent diabetes. In addition, essential health care requirements and facilities for self-care are often inadequate in many countries of the Region.

1.2 Among the environmental factors involved in causing diabetes, physical inactivity, obesity and fat distribution as well as certain nutritional trends emerge as the major causes of deterioration of glucose tolerance. Both obesity and physical inactivity increase insulin resistance. Exercise has been shown to have a protective effect against Type 2 diabetes. It has a beneficial effect in improving insulin sensitivity and glucose tolerance. Available evidence also implicates obesity as a risk factor for Type 2 diabetes and there is sufficient evidence to indicate that increased dietary intake of saturated fats and decreased intake of dietary fibre can result in decreased insulin sensitivity and abnormal glucose tolerance.

Thus primary prevention of diabetes can be achieved by decreasing insulin resistance through correction of obesity and increased physical activity and by the promotion of healthy nutritional trends (reduction in the consumption of fat and refined carbohydrates and increase in fibre content of the diet).

In practical terms, primary prevention of Type 2 diabetes should be integrated into intervention programmes for other non-communicable disease sharing common risk factors, such as CVD and cancer.

In view of the high magnitude of already established cases of diabetes there is also a pressing need to prevent complications and disabilities caused by diabetes. Measures employed include effective treatment and good glycaemic control as well as early detection of complications.

The development of long-term complications is linked to hyperglycaomia and poor control of diabetes accelerates their progression. Therefore the major goal of diabetes management should be to achieve good control of diabetes. To meet this objective, good management should be ensured and the standards needed for appropriate health care delivery to people with diabetes should be made available.

1.3 Pakistan, like many other countries of the EMR now recognize the need to accelerate action to prevent diabetes, its complications and the resulting disabilities at the national level.

2 THE MAGNITUDE OF DIABETES IN PAKISTAN

The prevalence survey on diabetes mellitus conducted by Diabetic Association of Pakistan in collaboration with WHO shows that diabetes prevalence is over 10% in both sexes in the people aged 25 years or above. Impaired Glucose Tolerance (IGT) was found to be over 13% in women and over 7% in men. Thus overall Abnormal Glucose Tolerance (AGT) was present in 20% of the subjects examined. Prevalence of glucose intolerance increased with age in both sexes. Age specific prevalence of IGT was higher for women than men at almost all ages. Central obesity and positive family history were strongly associated with diabetes. The association of central obesity was greater for women than for men.

3 OBJECTIVES OF THE PLAN OF ACTION

3.1 General Objectives

3.1.1 Continue to determine the epidemiology of diabetes, its chronic complications and associated risk factors

3.1.2 Integrate prevention of diabetes as part of the comprehensive behavioural change communication strategy.

3.1.3 Build capacity of health systems in support of prevention and control of diabetes.

3.1.4 Improve diabetes care.

3.1.5 Work in close collaboration with the Ministry of Health for the integration of diabetes care into primary health care

3.2 Specific Objectives

3.2.1 Studies on nutritional status of people with diabetes with appropriate intervention with the objective to reduce the incidence of obesity and its related complications.

3.2.2 Develop and test intervention strategies to reduce the incidence of diabetes and its complications and thus the economic burden.

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3.2.3 Promotion of educational facilities for diabetics and also for primary health care providers i.e. doctors, nurses and technicians.

3.2.4 Promotion of Awareness Programmes on diabetes for the community, through the print and electronic media, meetings and gatherings.

3.2.5 Preparation of education material on diabetes for the community, in national and regional languages.

4 STRATEGIES

4.1 Epidemiological studies

Baseline epidemiological data have now been collected from Sindh, Baluchistan, Northwest Frontier and Punjab Provinces. During the forcoming period of the action plan a consolidated report of national diabetes and NCD risk factor data will be prepared, which will include dietary data, smoking patterns and physical activity status. An effort will be made to assess the impact of diabetes in Pakistan in terms of rates of complications and costs to both the health services and affected individuals.

4.2 Primary prevention

4.2.1 Studies will be undertaken to monitor trends in nutritional status and physical activity patterns, with the objective to reduce the incidence of obesity and its related complications.

4.2.2 Demonstration projects will be developed to strengthen diabetes care within the primary health care system.

4.2.3 An interdisciplinary and intersectoral task force for prevention and control of diabetes will be convened under the coordination of the Ministry of Health with the active participation of the Diabetic Association of Pakistan, Karachi.

4.2.4 Information on prevention and control of diabetes and case management and principles of diabetes education will be included in the training curriculum for health care providers (i.e doctors, nurses and technicians).

4.2.5 The education material will be updated in simple and easy to understand national and regional languages and will specifically address the following issues :

Lifestyle modification, (diet, physical activity, and smoking cessation), oral hypoglycaemic agents, insulin, home blood glucose monitoring, and HbA1c.

As emphasised by the EM Regional Director "diabetes education should not be seen in isolation but as an integral component of clinical care and the basis for self - management".

4.2.6 Type 2 diabetes has emerged as a common Paediatric disease in the past decade. In Asian countries, life styles of children and adolescents, as well as those of adults, have changed rapidly, resulting in less physical activity and more fat intake. Consequently, obesity, which is a major risk factor for type 2 diabetes has steeply increased in children and adolescent.

Education of children of 5 years and above, their parents and school teachers about the importance of proper diet and physical activity to avoid obesity should be introduced in all secondary schools. Aerated drinks and bun kababs with high fat contents should not be allowed in the school canteens and in the "Stalls" outside schools. This can be done through the cooperation of Ministry of Education both Federal and Provincial.

4.3 Secondary prevention

4.3.1 Case finding will continue to be promoted. People above the age of 30 years with specific risk factors such as obesity, hypertension and family history of diabetes will be encouraged to undertake fasting / post prandial blood glucose or urine glucose measurement.

4.3.2 Raising community awareness is a vital strategy for indentifying people at risk of developing diabetes, achieving earlier diagnosis and preventing diabetes related complications.

In order to develop and implement truly effective community awareness raising campaigns, it is important to first determine the current status of community knowledge and perception about diabetes.

4.3.3 An annual campaign for screening of blood and/or urine glucose will be mounted in the general community, with support of the private sector.

4.4 Time to Act Now

It is proposed that the following steps be taken urgently by the Government of Pakistan.

4.4.1 The Government should declare diabetes to be a priority disease in all healthcare policies.

4.4.2 The Government should abolish duties and taxes on all diabetes care products including insulins, syringes, and blood glucose monitoring equipments.

4.4.3 A focussed public awareness programme for diabetes should be developed and implemented .

4.4.4 A comprehensive educational programme for diabetes should be developed and implemented for all healthcare providers including doctors and nurses.

4.4.5 All government healthcare institutions including BHU's should be provided the necessary and proper equipment for the diagnosis and management of diabetes.

4.4.6 All government healthcare institutions should have adequate supplies of drugs including Insulin to manage diabetes properly.

4.4.7 Specialised diabetes care clinics should be established in all the provincial teaching and district hospitals to provide tertiary care facilities for diabetes patients.

4.4.8 A focal point should be set up in the Ministry of Health, Islamabad, to monitor the epidemiology of diabetes and other NCDs and the progress made in controlling them.