

Research Report

COMMITTEE : World Health Organisation

ISSUE : *Which measures can be taken to prevent and manage the chronic diseases of obesity and diabetes?*

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Which measures can be taken to prevent and manage the chronic diseases of obesity and diabetes?

KEY WORDS

Diabetes: a chronic disease related to hormonal dysfunction of the pancreas affecting about 6% of the world's population. There are two main types: type I diabetes of genetic origin which most often affects children, teenagers and young adults; type II diabetes which accounts for 90% of diabetes cases, most often concerns people over 45 years of age who suffer from an unbalanced diet, might be overweight or even obese. There is also a type III diabetes related to pregnancy and a type IV related to Alzheimer's disease, but these cases of diabetes are marginal.

Diabetes mellitus: corresponds to a dysfunction in the regulation mechanism of glycemia, the level of glucose in the blood. The dysfunction concerns exclusively insulin, which is the main hormone regulating the glucose level in the blood. It is often associated with type II diabetes

Obesity: a chronic disease resulting from an imbalance between energy intake and expenditure. This imbalance leads to an accumulation of reserves stored in adipose tissue (body fat), resulting in numerous complications. The clinical diagnosis of obesity is based on the calculation of the BMI.

BMI, Body Mass Index: Calculation used to estimate an individual's body fat. The BMI corresponds to a person's weight (in kg) divided by the square of their height (in square metres). According to the WHO classification, a person is defined as being overweight when their BMI is more than 25 and obese when their BMI is superior to 30.

OVERVIEW

Obesity has become a major global public health problem, causing 4 million deaths per year, particularly in developed countries. Diseases linked to unhealthy lifestyles and ageing populations are a new health challenge for countries in the Asia-Pacific region. The latter have indeed managed to rid themselves of more traditional diseases, but are now faced with these non-communicable diseases, warns the World Health Organisation. In the USA, the number of adults with diabetes has increased since 1995 by at least 50% in 42 states and by 100% or more in eight others, according to federal statistics. These diseases are characterized by an

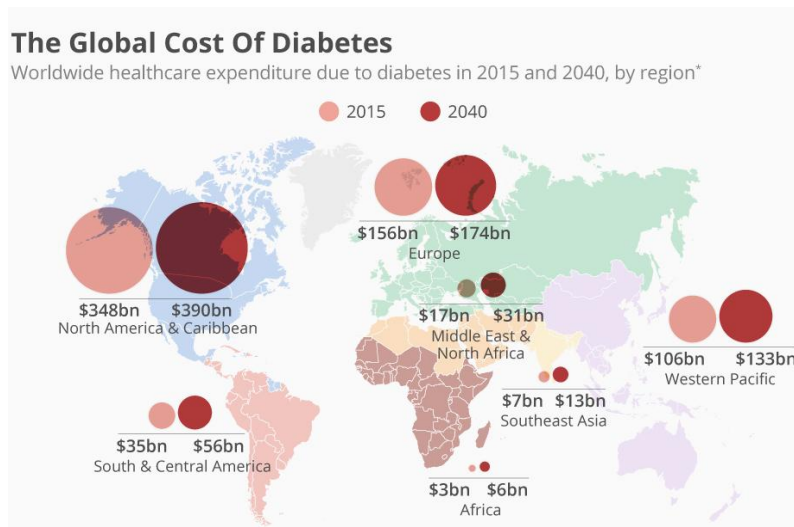
epidemic-like growth. While the origins of diabetes may be partly genetic, the main causes are our current consumer society, unhealthy lifestyles and psychological factors. Obesity also plays a major role in inducing diabetes.

Today, 425 million people worldwide have diabetes according to the International Diabetes Federation. Regardless of the type, diabetes can lead to complications that affect many parts of the body and increase the overall risk of premature death. In Côte d'Ivoire, as in many African countries, diabetes killed more than 300,000 Africans in 2017, and it is projected that 41 million people on the continent will have diabetes by 2045. Africa will then be the region of the world with the most important increase. Examples of possible complications are heart attacks, strokes, kidney failures, leg amputations, vision loss and nerve damage. During pregnancy, poorly controlled diabetes increases the risk of intrauterine death and other complications for both the mother and the infant.

A person with diabetes or obesity represents an expense. Direct charges refer to the provision of health services to treat health problems related to obesity or diabetes, i.e. expenditure on hospital admissions, consultations and medication consumption.

- 1) Indirect costs refer to the loss of productivity when people have to leave work for health reasons, either temporarily or permanently. These costs are calculated on the contribution that these people could have made to the economy if they were not ill. It is also possible to see a reduction in the productivity of workers as they suffer from illnesses that affect them physically and psychologically.

Obesity also affects the quality of life: it can lead to discrimination, which in turn can lead to stigmatisation and social marginalisation. These situations can be caused by teachers, employers, health professionals, the media, and even friends or family. This can lead to significant long-term risks, such as depression and reduced self-esteem. These dangers are susceptible to creating a vicious cycle of loss of self-confidence, which turns into a fear of being judged, which may then discourage people suffering from the disease from engaging in outdoor physical activity or seeking expert medical treatment. Children in particular suffer from obesity-related stigma: an obese child is 63% more likely to be bullied than a healthy child, and bullying, if aggravated or sustained, can even lead to suicide.



*The Global Cost of Diabetes
Global health expenditure (in billions of USD) due to diabetes in 2015, and predictions for 2040, by region*

Source: Statista

RELEVANT UN TREATIES AND EVENTS

13/05/1989

Establishment of diabetes prevention and control, with a special focus on diabetes mellitus, whilst making the prevention of diabetes a priority for the World Health Organization.

22/05/2004

Recognition of the interdependence of nations, communities and individuals regarding public health issues, alongside the central role governments play in creating an environment which encourages individuals, families and communities to make positive, life-enhancing decisions about a healthy diet and physical activity.

26/05/2012

Supporting Member States in the *Global Strategy for Infant and Young Child Feeding*, with the latest evidence on nutrition, progress in implementing the global plan, and the report on the implementation of the International Code of Marketing of Breast-milk Substitutes. This links to diabetes as women who suffer from the disease find complications in being able to breastfeed their newborns.

World Diabetes Day annually takes place on 14 November and World Obesity Day on 4 March, aimed to raise greater awareness regarding these major issues.

POSSIBLE SOLUTIONS

1) Education

- Create educational programmes in schools to make children aware from an early age of what a healthy lifestyle entails, what a balanced diet looks like and the importance of practising physical activity at least 3 times a week;
- Organise daily group gymnastics sessions for all classes;
- Provide grants and technical assistance to help schools ensure healthy eating in school restaurants, e.g. through salad bars, more fruit and vegetables, limiting sugary drinks and foods etc.
- Setting up vegetable gardens in schools to promote access to balanced nutrition and to raise awareness and direct involvement of children in their diet and consumption habits;

2) Professional sphere

- Make a gym/workout room accessible to all in the workplace; offer reduced or free access to nearby clubs and gyms;
- Allow sufficiently long breaks for employees to engage in physical activity;
- Provide healthy food and drink in canteens, vending machines and other workplaces, while limiting access to sugary drinks and promoting access to clean water;

3) Economy

- Introduce taxes on certain foods that contain too much fat, salt or sugar in order to reduce the intake of products that worsen obesity and diabetes (e.g. soda tax in France);
- Use the revenue from these taxes to reduce the price of healthier foods and drinks;
- Ban or reduce certain advertising (fast food, excessively fatty or sugary foods etc.);

- With the help of nutrition experts, establish and introduce a visual system of products in supermarkets that allows consumers to better visualise the content and quality of their purchases; (on energy or nutritional quality (e.g. carbohydrates))

4) Medical domain

- Manage stress with relaxation techniques (cardiac coherence, sophrology, techniques that help to de-stress and limit obsessions) to try and limit eating disorders;
- Prescribe physical activity sessions supervised by health specialists for overweight or obese people;
- Consult a nutritionist or dietician at the first signs of overweight;
- Psychological support for patients during therapy, to encourage them to remain motivated and to learn more about the causes of eating disorders;

5) Infrastructure

- Improve access to active public transport such as free or affordable bicycles provided by the public authorities;
- Improving urban facilities, e.g. adding stairs when possible, providing safe cycle paths, etc.
- Make lifts or other means of transport and static movement more difficult to access - except for those with reduced mobility issues - to encourage people to use healthier means of transport (bicycles, walking, etc.) and at the same time reduce the negative effects of greenhouse gases;
- Provide subsidies and incentives for the purchase of bicycles, walking equipment and other sustainable transport means, to encourage the population to use these means of transportation which allow for a minimum and regular level of physical activity.

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