Chapter 15

Traditional African Foods and Their Potential to Contribute to Health and Nutrition: Traditional African Foods

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ABSTRACT

The nutritional state of large segments of the African population remains alarming despite the positive socio-economic development that is taking place. The most significant nutritional problems include undernutrition, iron deficiency and vitamin A deficiency. Malnutrition and deficiencies also exacerbate a number of other diseases and health conditions. Besides undernutrition, the prevalence of overnutrition and obesity on the African continent are rising, as are the associated health conditions such as diabetes and coronary heart diseases. This chapter outlines the unique nutritional and bioactive properties of Traditional African Foods (TAFs) and their potential to contribute to the alleviation of undernutrition, overnutrition and associated health problems. Special emphasis is placed on vegetables, fruits, cereals, edible insects, small fish species, mushrooms, legumes, sesame, tuber and root crops. Some of the identified health benefits of these TAFs include lowering of serum cholesterol, anti-carcinogenic, anti-diabetic and anti-inflammatory, cardiovascular disease prevention and anti-hypertensive properties.

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INTRODUCTION

The traditional African diet has always been rather unique, as it comprises a wide variety of African crops and food products, prepared using traditional African methods that are generally not consumed in other parts of the world. However, significant dietary changes are taking place, not only in Africa, but in most developing countries, resulting in substantial changes in the traditional diets of large segments of the population. The impact of the “Western” influence on the traditional African diet is growing rapidly and many elements of African diets have already been replaced by more convenient and conventional alternatives. Against the backdrop of malnutrition and nutrient deficiencies that are still widespread throughout Africa, the question is whether these shifts in dietary patterns are beneficial or detrimental to the general health status of the African population. To answer this question, the nature of these dietary changes and their associated health implications are analysed, followed by a review of the nutritional value and functional benefits of various traditional African foods. Food safety aspects related to dietary changes as well as constraints limiting the consumption of traditional African foods are also reviewed.

BACKGROUND

Dietary Changes in Africa

Over the last decades it has been observed that significant dietary changes are taking place in developing countries at an ever-increasing rate. The general pattern seems to be a transition towards a more “westernized” diet at the expense of traditional diets and common staples. The changes include a reduction in the intake of traditional cereals, complex carbohydrates, vegetables and fibre, with an increased consumption of energy dense foods containing higher levels of saturated fats, added sugars and salt (Uusitalo et al., 2002; Stamoulis et al., 2004). The traditional African diet was largely plant-based, comprising various small grain cereals, mainly millet and sorghum, dark green leafy vegetables, tropical fruits, legumes, starchy stems and root tubers. Animal products that dominated African diets included fish, fermented milk, and to a small extent game meat, poultry, beef and mutton. One of the most evident dietary shifts has been the significant increase in maize, rice and wheat consumption, replacing the traditional staple cereals and roots and tubers (Uusitalo et al., 2002; Lopriore & Muehlhoff, 2003). Introduced vegetables and fruits, e.g. cabbage and oranges, have largely replaced traditional ones and general consumption of fruits and vegetables seem to be on the decline. A number of contributing factors that have played a part in such dietary shifts include higher levels of income, demographic changes, urbanization and an increase in the spread of supermarkets, and thereby an increase in the availability of convenient and affordable prepared or semi-prepared foods (Stamoulis et al., 2004). Consequently, there is a decrease in the consumption of traditional foods, which mostly require time- and labour-intensive home-based preparation. Such changes in diets can give rise to an increased incidence of diet-related non-communicable diseases resulting from a high intake of fats, sugars and salt, and a sedentary lifestyle. Some developing countries are already experiencing a rise in these chronic diet-related diseases associated with dietary changes (Stamoulis et al., 2004). Such diseases include cardiovascular disorders, various forms of cancer, diabetes, hypertension, obesity and osteoporosis (Uusitalo et al., 2002). This places a double burden on the African healthcare system, since under-nutrition and micronutrient deficiencies, as well as problems related to obesity and overnutrition need to be addressed.