

Food safety and quality nutrition

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Health and well-being are highly valued in today's society and food is considered to play a major role. Food safety issues are complex and consumers vary greatly in their knowledge of the science of food safety. Food safety and quality are important components for the improvement of quality of nutrition and life in general. Food safety involves utilisation of resources at household, community and national levels to ensure that all types of foods are properly handled and rendered safe for human consumption. Consumption of contaminated food interferes with nutrient utilisation in the body thus leading to poor nutrition quality. About 700 000 food contamination related deaths occur in Africa each year at the rate of 5.1 – 7.1/1000 compared to 4.1/1000 globally. This is a high mortality rate related to food contamination, which could certainly be avoided. Contamination with agric-chemicals exposes many people to pesticide and poses great threat to public health. Three million cases of acute poisoning and 20 000 deaths occur annually in developing countries due to exposure to pesticides. Dietary exposure to aflatoxin contaminated maize-based products has been associated with various human health related conditions including the high incidence of liver cancer, growth retardation in children, reproduction impairment and suppression of cell mediated immune responses. Maize grain contaminated with aflatoxin producing fungi has been implicated in incidences of aflatoxicoses that claim many lives in Africa. Food contaminations may be implicated in poor nutrition quality of many African populations. High prevalence of under nutrition is often associated with food insecurity but this may not explain the entire spectrum of the causes of under nutrition. Currently over nutrition and development of dietary related chronic diseases has added a new dimension to the problems of malnutrition in Africa. It is in this context that ICSU is proposing to carry out research projects in the area of food safety and quality nutrition to firstly, generate information about the prevalence of food contaminated related illnesses and deaths as well as prevalence of under nutrition and over nutrition. Also to generate information on toxin and nutrient contents of local and indigenous foods that is commonly consumed in Africa. Secondly, develop cost-effective methods for improved food safety (that is, food free of pathogens and toxins), especially during processing, transportation, and storage. Address issues of pathogen transmission from food to humans and develop cost-effective and user-friendly food and quality procedures. Thirdly, develop healthy balanced diets based on locally available and accessible foods also profile the nutrient content of locally available foods and methods for their fortification.