Food Safety and High Risk Groups

Although everyone is susceptible to foodborne diseases, certain segments of the population are particularly at risk of contracting a foodborne illness — young children, the elderly, pregnant women, the immuno-compromised and travellers.

**High-risk groups**

Vulnerable persons are not only at risk of contracting a foodborne illness but may also suffer more severely.¹

**Children**

Young children are at more risk to foodborne diseases because their immune systems are still developing and the protection afforded by the resident gut flora is not as effective as in adults.² In addition, children consume more food in proportion to their weight than adults, hence they absorb more toxins and contaminants.

Foodborne bacterial infections are particularly prevalent, children in the region may experience five episodes of diarrhoea per year and 800,000 children die each year from diarrhoea and dehydration.³

Prevalence rate for persistent diarrhoea for example in Zimbabwe was reported to be as high as 6.05⁴

Children are also more vulnerable to the toxic effects of chemical contaminants in foods. Exposure of children to pesticides may lead to immunological and endocrine defects, neurotoxic disorders and sometimes cancers.²

Environmental contaminants such as lead in children affect the central and peripheral nervous system and may result in behavioural and cognitive development defects.

**The elderly**

Older people are more susceptible to foodborne illness than other groups due to the fact that, the natural defences or ability to fight diseases lessen in old age. A decrease in stomach acid secretion, which is a first line defence against ingested bacteria, compounds the problem.

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¹ Foodborne disease: a focus for health education. WHO. 2000.
² Children’s Health and Environment: A Review of Evidence. WHO Regional Office for Europe. 2002
³ Fact Sheet N 109: Childhood Diseases in Africa. WHO. 1996
Infections such as enterohaemorrhagic *E. coli* can be particularly fatal.

**The immuno-compromised**

Due to the weakened immune systems, individuals suffering from chronic illness such as HIV/AIDS are particularly prone to contracting foodborne illness. As of 2005, an estimated 38.6 million people worldwide were living with HIV. In Sub-Saharan Africa, the region with the largest burden of the AIDS epidemic, data indicates that the HIV incident rate has peaked in most countries. Bacterial infections such as *Salmonella* can cause serious complications among HIV/AIDS persons.

**Pregnant women**

Hormonal changes during pregnancy can have an effect on the mother’s immune system resulting in increased susceptibility to foodborne infections. *Listeria monocytogenes* (LM) is of concern as it can cause premature delivery, abortion and still birth. The disease is most often associated with consumption of food such as refrigerated processed meat products.

**Travellers**

International travellers could contract diarrhoea through consumption of contaminated food. Low level of immunity, a change in diet, climate are some of the factors compounding the problem. WHO has developed a guide on Safe food for Travellers which provides practical advice and hints on how to eat safely, and the necessary actions needed in case of diarrhoea.

**Preventing foodborne illness: effective interventions**

In view of the effect of foodborne pathogens on the health of these groups, it is imperative to inform them of the increased risk they run from contaminated food and to advise them of the precautions they can take to protect themselves.

In countries such as Kenya, Nepal and Peru comics have been used to explain food safety and nutrition to school children.

In Zimbabwe, newspapers have been used regularly to remind the public of measures to control and prevent cholera.

Prevention of foodborne diseases in infants and children requires a multidisciplinary approach, including the promotion of exclusive breast feeding, safe preparation and handling of complementary infant food and the simultaneous education of parents and food handlers.

**WHO technical support in advocacy and awareness raising efforts**

WHO has developed the Five Keys to Safer Food poster, which outlines the essential requirements to preventing foodborne illness. Along with the five keys poster, WHO also developed a generic training manual based on the 5 keys messages as a framework for food safety professionals, teachers and other interested organizations to use in developing training materials and programmes for high risk groups.

The WHO Five Keys to Safer food messages have also been adapted into a guide on safe food for travellers to specifically address the health concerns associated with travel.

Five keys to safer food pilot projects have been initiated or established in several countries of the African Region targeting high risk groups such as school children, women etc.

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