

**ANTIOXIDANT VITAMIN INTAKES AMONG EMPLOYEES OF  
THE MINISTRY OF FOOD PRODUCTION,  
LAND AND MARINE AFFAIRS**

Natalie J N Isaac

Supervised by Dr. Selby Nichols

2012

**Background:** Chronic non-communicable diseases such as the cardiovascular diseases (hypertension, chronic heart disease, coronary artery disease) and particularly type II diabetes have soared to astronomical levels in Trinidad and Tobago. At the basis of development of these diseases is the damage to cells including DNA, proteins, lipids caused by free radical activity. A diet rich in fruits and vegetables which contain antioxidants is a powerful means of preventing onset of chronic disease. These antioxidants function by electron and atom donation to free radicals which stabilizes them and stops damage to the cells. Intakes of antioxidants can be augmented with supplements. Optimum health is supported by adequate intakes of antioxidant vitamins as stipulated by RDAs and upper tolerable limits.

**Objective:** The objective of this study is to determine whether or not adequate intakes are being obtained to inform chronic disease prevention methods.

**Design:** A cross sectional study was conducted on one hundred and six employees (106) of the Ministry of Food Production, Land and Marine Affairs using a food frequency questionnaire to ascertain antioxidant levels through intakes of fruits, vegetables and antioxidant rich beverages.

**Results:** Dietary intakes of vitamin C and A appear adequate for just over half of the sample, but inadequate for the remainder with vitamin E and supplemental intakes of the three vitamins being inadequate overall.

**Conclusion:** In the full context of the stipulation of Recommended Dietary Allowances, it cannot be stated that intakes of antioxidant vitamins are adequate for the sample studied.