

INTRODUCTION

BACKGROUND

Type 2 diabetes is the most common form of diabetes and accounts for 90-95% of the diabetic population. Type 2 diabetes is due to the lack of insulin production by the beta cells or more commonly the insulin resistance in the peripheral tissues or the body, both of which result in high blood glucose levels. Type 2 diabetes is an emergent problem in the Latino population in Rochester. Rochester Institute of Technology's Dietetics Program has subcontracted the nutrition component of a grant, with the Rochester Diabetes Network (RDN), that is funded by the Center for Disease Control (CDC) and is administered by the NYS Department of Health (NYSDOH). The purpose of the grant is to help improve the health of those individuals who have type 2 diabetes or who are pre-diabetic in the Latino population, which are 200% or more below the poverty level. It's important for diabetics to control their disease before it manifests into future complications and reduces their health status. Future complications may cost thousands of dollars for the community. Out of the \$1 trillion of medical care costs spent fighting chronic disease, diabetes alone accounts for more than \$1 billion spent annually (CDC, 2003). It has also been found that prevention measures and solutions to the factors that contribute to the development and management of Type 2 diabetes have a significant rate of return on investment (Underhill, 2004).

The specific outcome of this research proposal, coordinated by RIT faculty members, will be to provide a variety of nutritional intervention strategies

for the identified population, test the efficacy of these options and recommend options which improve the targeted audience's ability to control their disease process (Underhill, 2004). The significance of this area of research is found in its contribution to the national health promotion and disease prevention initiative of the U.S. Department of Health and Human Services, *Healthy People 2010* (Underhill, 2004).

PROBLEM STATEMENT

The Latino populations in two specific zip codes in the Rochester, NY area have an increase in the prevalence of type 2 diabetics. Type 2 diabetes is a chronic disease, which needs to be managed to prevent further complications. There are not enough sources of information or interventions to help the low-income Latinos, which are 200% or more below poverty level, treat or manage their disease.

PURPOSE/OBJECTIVES

The goal is to provide research about type 2 diabetes and strategies for relevant nutritional outcomes for interventions that will help the Latinos with type 2 diabetes manage their disease in a culturally specific manner. The intervention strategies will be specific to with low-income, or 200% or more below poverty level, Latinos and should increase the compliance among those individuals with type 2 diabetes.

SCOPE AND LIMITATIONS

Type 2 diabetes is a problem in many areas of the world, however, this grant is designated to include the Latinos specific to the zip codes 14605 and 14621 in Rochester, New York since they are the predominate population in that area. The Latino population in those zip codes includes Puerto Ricans, Cubans, Mexicans, and Dominican Republics.

The grant is given over a five-year period and, during that period includes a needs assessment, analysis and diagnosis, intervention, and evaluation or report of findings. This research is being conducted during the analysis and diagnosis phase of the intervention. The time is limited to ten weeks to collect and analyze further data. Money is also a limiting factor in this report. Accessibility and communication with the Latino population in the designated area is limited as well.

Challenges in overseeing the care provided to this population include: the client's lifestyles, economic status, education level, and interest in practicing self-care and good health habits (Underhill, 2004).

METHODOLOGY

The author first will meet with the grant committee consisting of Linda Underhill, Ph.D., RD, Barbra Cerio-Iocco, MS, RD, CDN, and Elizabeth Kmiecinski, MS, RD to discuss the grant and the type 2 diabetes intervention proposals.

Secondly the author will complete an extensive literature review of type 2 diabetes, the Latino diet, chronic diseases, and intervention strategies.

Next, the author to determine if the typical recipes of the Latino population that were gathered by the grant committee were typical recipes of the target population will complete a focus group with the target population.

The author will also complete product development in transferring a typical Latino meal into one that complies with a type 2 diabetic's diet. The author will conduct a taste panel of the new meal to complete a sensory evaluation of the new product and determine its acceptability. The author will then use the nutrient data analysis software program, The Food Processor, to compare the nutrient content between the typical Latino meal and the new product that complies with a type 2 diabetic's diet.

Finally, the author will summarize findings from the literature as well as focus group and taste panel experiences.