

**Type II Diabetes Intervention Proposal
For the Monroe Plan for Medical Care
Rochester, New York**

August 2003

Purpose/Rationale/ Significance of the Proposal:

The Monroe Plan of Rochester manages the administrative aspects of the Medicaid HMO population for Blue Cross and Blue Shield. As such they are responsible for medical outcomes of the clients under their care and supervision. The inherent challenges in overseeing the care provided to this population includes: the client's lifestyles, economic status, education level, interest in practicing self-care and good health habits. The Monroe Plan mirrors the concerns the nation has for the prevalence of chronic illness in America and the costs associated with such conditions. According to the Center for Disease Control (CDC) diabetes is one of the top ten diseases responsible for reducing the functional capacity and productivity levels of 25 million plus Americans. 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).¹ It has also been found that prevention measures and solutions to the factors that contribute to the development and management of Type II diabetes have a significant rate of return on investment.

The purpose of this proposal is to provide a non-control quality improvement approach which will provide nutritional interventions that improve the health and well being and therefore the quality of life for the client population identified by the Monroe Plan who suffer from Type II diabetes. The specific outcome of this research proposal is to develop options for a variety of nutritional intervention strategies for the identified population which will improve their ability to control their disease process.

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*. As dietitians involved in education the research team is interested in improving the nutritional well being and quality of life which can result from such research. As members of the American Dietetic Association these professionals embrace the priority areas of research of the Association which include the "prevention and treatment of obesity and associated chronic diseases". This intervention program should prove to be significant to the Monroe Plan to provide options to providers to assist their patients improve compliance for disease management of diabetes, forwarding the goals of the American Dietetic Association and contributing to the life and health of Americans.

¹ Center for Disease Control. 2003. Chronic Disease Prevention. Retrieved November 1, 2003 from <http://www.cdc.gov/nccdphp>

Quality Improvement Team:

The research team is comprised of three specialists who bring expertise to the study. They are:

Linda Underhill, Ph.D., RD; Ms. Underhill has worked in the health care field for over 30 years. Included in her responsibilities has been the development and implementation of research protocols for a number of health care development projects. At the present time Ms. Underhill is the Program Chair for the Health Systems Administrative graduate program at the Rochester Institute of Technology (RIT) within the School of Hospitality and Service Management.

Barbra Cerio-Iocco MS, RD, CDN has been a professor at RIT for the last 18 years in the School of Hospitality and Service Management where she is Didactic Program Director

for the Nutrition Management Program. She assisted in starting up the College of Management and Technology for Rochester Institute of Technology. The program in Croatia now has over 750 students. Prior to joining RIT Ms Cerio worked for 10 year in western new York as a dietitian in the health care field in both clinical and management positions.

Liz Kmiecinski, MS, RD: Mrs. Kmiecinski has been involved with healthcare as a practitioner and educator for twenty years. In addition to teaching courses regularly in Medical Nutrition Therapy which includes dietary management of diabetes, she oversees the placement of undergraduate nutrition students for practicum experience in a variety of community and clinical settings.

The research team is collaborating with Kathryn Gardner, RN, Director of Analysis, Evaluation and Nursing Research at Rochester General Hospital and the Diabetes Network.

Protocol/Time line :

This project will be completed in four phases. Each is described below with an approximate timeline.

Phase I

Needs Assessment; The initial step in this process will be to analyze the current population of Type II diabetics within the Monroe Plan population to determine the gap between what is and what the desired state of compliance should be. This will include the following:

1. To facilitate the collection and analysis of data the RIT research team joined the Rochester Diabetic Network and will seek to work with them collaboratively on this project.
2. Collect and review background information for the client population including barriers to compliance.
 - a. Identify the significant Hispanic population in the community.
 - b. Identify food preferences and eating habits of identified population.
 1. Verify nutrition research made about food preferences and eating habits through a survey of the Hispanic population with Type II diabetes. (please see narrative at the conclusion of the document for details of the process plan)
 2. Incorporate the survey information into parameters of nutritional interventions to be actuated in phase II and III.
 - c. Identify food availability in targeted Hispanic neighborhoods.
 - d. Review Hispanic teaching tools available.
3. Given the targeted Hispanic population and the variables identified create research outcomes for the nutritional interventions.
4. Collaborate with the Monroe plan for agreement regarding the research outcomes which will be sought with the nutritional interventions .

Timeline : September 2003 – November 2004

Please refer to the document titled Needs Assessment Results containing the results of the needs assessment process for this project.

Phase II

Analysis/ Diagnosis: Based upon the results of the needs assessment the research team will:

1. Given the targeted Hispanic population and the variables identified create relevant nutritional outcomes for interventions.
2. Collaborate with the Monroe plan and the Rochester Diabetes Network for agreement regarding the research outcomes which will be sought with nutritional interventions .
3. Identify issues preventing compliance in the management of the Diabetic disease process. The team will seek to identify nutritional strategies which could compensate/address the issues which prevent compliance. The research team will discuss these strategies with the administration of the Monroe Plan and the Rochester Diabetes Network and with their assistance, prioritize and identify the specific issues the resource team will provide nutritional interventions for.

Timeline : November 2004 –August 2005

Phase III

Intervention: For each of the selected issues the research team will plan an appropriate action to change/ modify and move the Diabetic client toward self-care. This process will include:

1. Identification of nutritional goals/outcomes
2. Development of a nutritional strategy including delivery methods and timelines.
3. Implementation of the strategy

To facilitate the execution of the strategies grant funding and/or collaboration with secured grant funding will be pursued.

Timeline : Plan and implement intervention strategies with population; assess degree of readiness to change/modify lifestyle. September 2005 - December 2006

Phase IV

Evaluation/Report of Findings: The resource team will design and conduct formative/summative evaluation of the results of the nutritional intervention. To facilitate the collection of data grant funding will be sought. At the conclusion of the Diabetic type II intervention study the team will present the results of the study to the Monroe Plan for discussion and application of the strategies for the future.

Timeline : Prepare report of results, recommendations for future ; present findings to Monroe Plan and the Rochester Dietetic association. May 2007

Narrative for Hispanic survey Process

To achieve the verification of Hispanic eating habits and food preferences the following process has been implemented:

1. A food preference, food habit nutrition survey has been developed in Hispanic and English and is accompanied by a letter of information explaining the solicitation of responses. The RIT research team, working in collaboration with the RDN, is requesting permission to distribute the survey at the Clinton Family Health Center, to Hispanic females, over the age of 18 with Type II Diabetes. The permission will be granted by the RGH Nursing Research team and the Human Subjects committee at RGH. The survey will be distributed according to the protocol, **Protocol for distributing Hispanic questionnaire at the Clinton Family Health Center** (see attached document A)
2. Compliance with the Nursing Research committee regarding process is addressed in the Protocol for distributing Hispanic questionnaire, the letter of explanation which is to accompany the survey, and the survey. (Please refer to attachments A, B and C)
3. Once the process is approved the letter and questionnaire will be reverse translated to ensure accuracy in terminology and expression.

Phase I of the Type II Diabetes Intervention Proposal is complete.

Timeline for the completion of this Needs Assessment: September 2003-November 2004.

Please note as additional surveys (see section b.2. attachment B) become available the summary results will be modified through the end of January 2005.

Research data about the population base for this nutritional intervention is available in summary form in the attached report; as an attachment to this document; and/ or in the Type II diabetes Research folder located in the HSA office on the 4th floor of the Eastman building. The methodology for completion of this phase of data collection was to utilize the resource team and RIT Senior Nutrition Management students. Specifically students assisted in data gathering and analysis under the guidance of the faculty resource team as either parts of the Senior Research Project (061949001) or as members of the Community Nutrition (062055001) course.

Needs Assessment; The initial step in this process was to analyze the current population of Type II diabetics within the Monroe Plan population to determine the gap between what is and what the desired state of compliance should be. This result of this analysis includes the following:

1. To facilitate the collection and analysis of data the RIT resource team joined the Rochester Diabetic Network and has worked with them collaboratively on this project. Membership in this Network consist of various representatives from the community which has a significant presence of professionals in the ViaHealth network, specifically Rochester General hospital and their related clinic sites in the community. As a result of this affiliation the resource team was introduced to the specific clinics in the community which provide health care to the Hispanic population within the zip codes specified by the Monroe plan. Specific data collection tools were designed and administered to the at risk population at these clinic sites (see 2.b. of this summary report). In addition relationships were established with the clinic staff to facilitate further phases of this research proposal.
2. Collection and review of background information for the at-risk client population including barriers to compliance.

a. Identification of the significant Hispanic population in the community.

Results:

For the designated zip codes to be addressed in this study (specifically 14605 and 14621) the predominant Hispanic population living in these zips includes, in descending order, Puerto Rican, Cuban, Mexican and Dominican Republic.

b. Identify food preferences and eating habits of identified population.

1. Verify nutrition research made about food preferences.

Process: Selected senior nutrition management students completed a project, via literature review, of typical ethnic foods for the four major Hispanic population subgroups identified within the designated zip areas.

Result: (See Attachment A). This information will be utilized in preparing nutritional strategies for control of the diabetic process for affected consumers.

2. Verification of assumptions of food preferences and eating habits of identified populations.

Process: Senior nutrition management students, working with the faculty resource team and Hispanic interpreters, developed a survey tool with the intent of gathering data on food preferences and eating habits from Hispanic type II diabetics living with the study zip codes. This information is to verify assumptions made

in the literature review as of food preferences and eating habits of this identified population. The survey was administered at the Clinton Crossing medical clinic which serves the customers in the designated zip codes.

Result: See Attachment B for the results of the survey. Results of this analysis will be incorporated into nutritional strategies provided in later phases of this project.

c. Identify food availability in targeted Hispanic neighborhoods.

Process: Senior nutrition management students identified food outlets in the designated zip code areas and comparison priced foods which they found in multiple outlets. This accomplished two things. First availability of food within the designated areas and second the cost of such food.

Results: In Attachment C there is a listing of food availability, and food pricing, designated by food outlet. Results of this analysis will be incorporated into nutritional strategies provided in later phases of this project.

d. Review Hispanic teaching tools available.

Process: Senior nutrition management students identified a variety of teaching tools in Hispanic which could be utilized for the designated population. They found these resources with a search of the literature and with inquiries to professional organizations who teach this population throughout the country.

Results: Specific examples of the teaching tools can be found in the nutritional files located in the HSA office on the RIT campus. A limiting factor in the availability of these tools is the redesign by the FDA for the food pyramid guidelines. The revision is expected early in 2005. Once this is done new tools will be generated for the Hispanic population.

Also, available for Hispanic translation is a diabetic Hispanic food Exchange list which also includes some low fat variations of traditional Hispanic foods. This can be found as Attachment D.

All of the material gained in this needs assessment will now be applied in the remaining phases of this research proposal. Please refer to the Type II diabetes Intervention proposal for specifics.