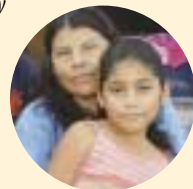




With one child on your lap and your other children surrounding you, life can be good, despite difficult circumstances. What counts is having what is most important close to you. This family, like many others in the newest Lower Rio Grande Valley colonias, lives in a trailer. Little more than four plywood walls and a roof, it was supplied by concerned neighbors after a fire destroyed the family home. Other more subtle catastrophes—low wages, menial work, unfinished schooling, seasonal and unreliable employment—ravage the hopes of families like this daily. Ensuring there is nourishing food on the table is the next challenge. Access to enough food is an issue for one in every seven households in Texas, and poverty in the Lower Rio Grande Valley makes food insecurity a reality in many homes, though no one knows exactly how many. Meanwhile, families like this one gather on the front steps, as do families across the country, to rest from a day's labors and to gain strength from one another to face those of the next.





1

Introduction: History and Overview of the Lower Rio Grande Valley Nutrition Intervention Research Initiative

Charles A. Onstad and Margaret L. Bogle

O V E R V I E W

MAKING A DIFFERENCE IN THE NUTRITION OF families and communities is the purpose of the Lower Rio Grande Valley Nutrition Intervention Research Initiative, the first national nutrition research program to choose as its primary target the Hispanic population. The mission of the project is to improve the nutritional health of the population of the Lower Rio Grande Valley through effective nutrition awareness, education, intervention, and research at the family and community level.

Initiated by the Agricultural Research Service (ARS) of the U.S. Department of Agriculture (USDA) in 2001, the effort has been undertaken by a consortium of academic institutions in south Texas, including Texas A&M University–Kingsville; The University of Texas–Pan American in Edinburg; The University of Texas Health Science Center at Houston School of Public Health and its Brownsville Regional Campus; Texas Cooperative Extension in

College Station; Texas Agricultural Experiment Station in Weslaco; the USDA Children’s Nutrition Research Center, Baylor College of Medicine, in Houston; Texas A&M University School of Rural Public Health at McAllen; and The University of Texas at Brownsville and Texas Southmost College. Participation is multidisciplinary and efforts have been cooperative. The collaborative’s aim to promote wellness while preventing and controlling nutrition-related chronic disease is to be achieved through community-based research and applications.

Expected to cost \$6 million per year, the research will assess the nutrition and health needs of the region. Following collection of baseline data, interventions are expected not only to improve the health and nutritional status of communities in the Lower Rio Grande Valley, but also to produce models that may be implemented on a larger scale in other areas of the United States. >>>

The Lower Rio Grande Valley Nutrition Intervention Research Initiative (NIRI) consists of a consortium of the USDA ARS and the following Texas institutions and agencies: Texas A&M University–Kingsville; The University of Texas–Pan American (Edinburg); The University of Texas Health Science Center at Houston School of Public Health and its Brownsville Regional Campus; Texas Cooperative Extension (College Station); Texas Agricultural Experiment Station (Weslaco); the USDA Children’s Nutrition Research Center, Baylor College of Medicine (Houston); Texas A&M University School of Rural Public Health at McAllen; and The University of Texas at Brownsville and Texas Southmost College. This collaborative has been established to improve the nutritional health of the population in the Lower Rio Grande Valley and to initiate community-based nutrition intervention research for wellness and the prevention of nutrition-related chronic diseases. The aim in establishing the collaborative is to sustain the research at the community level and to develop models to implement on a larger scale in similar areas of the United States.

The Lower Rio Grande Valley NIRI is unique in that it is the first national research program to target primarily the Hispanic population, with its disproportionate rates of nutrition-related chronic diseases, in order to develop nutrition interventions; implement and monitor population changes over time; and determine what benefits food, nutrition, and behavioral interventions contribute toward improving the quality of life for a specific region of the United States.

HISTORY OF THE LOWER RIO GRANDE VALLEY NIRI

On May 17, 2001, Charles A. Onstad, Ph.D., area director of the Southern Plains Area, ARS, USDA, convened a group of professionals working in the Lower Rio Grande Valley to discuss the formation of a Hispanic human nutrition intervention research initiative. The meeting was held at the Kika de la Garza Subtropical Agricultural Research Center of the USDA ARS in Weslaco. This group included the president of The University of Texas–Pan American; the dean of the College of Agriculture from Texas A&M University–Kingsville; the resident director of the Texas Agricultural Experiment Station; the district director of Texas Cooperative Extension, two congressional aides, two

The mission of the initiative is to improve the nutritional health of the population of the Lower Rio Grande Valley through effective nutrition awareness, education, intervention, and research at the family and community level.

nutritionists, a plant physiologist, and ARS administrative personnel. This multidisciplinary group’s agenda focused on the Lower Rio Grande Valley and identifying food and nutrition problems, proposing possible solutions, and locating resources and those needed to address the problems.

In addition, Margaret L. Bogle, Ph.D., executive director of the ARS Lower Mississippi Delta NIRI (Delta NIRI), based in Little Rock, Arkansas, presented an overview of that consortium and its research activities. Still ongoing, it is a human nutrition research initiative in the Lower Mississippi Delta of Arkansas, Louisiana, and Mississippi. The Delta NIRI is a consortium of six universities and ARS that uses community-based participatory research to improve the health of residents of the Lower Mississippi Delta. The 36 counties and parishes served are rural and agricultural, and they are characterized by high rates of poverty, low educational attainment, and a high prevalence of nutrition-related chronic diseases. African-Americans are the majority population. The consortium organized for this initiative includes a multidisciplinary group of scientists with diverse ethnicity and varying levels of research experience and expertise. Three of the university partners are the 1890 land grant universities in Arkansas, Louisiana, and Mississippi.

After comparing similarities and differences of demographics, nutrition-related diseases, and socioeconomic status between the Lower Mississippi Delta and the Lower Rio Grande Valley, the discussion centered on issues specific to the Lower Rio Grande Valley. The problems were summarized as follows: the Lower Rio Grande Valley has a population, largely Hispanic (>75%), that has problems related to poor nutrition and lack of nutrition education. Other problems are poverty, obesity, high rates of diabetes, and high rates of late prenatal care. The prevalence rates of coronary heart disease, related conditions, and cervical cancer are above national averages. There is no national program of

wellness or disease prevention dedicated to the unique needs of the U.S. Hispanic population.

The approach to solving these problems would include selection of the four counties of the Lower Rio Grande Valley as a focus (Cameron, Hidalgo, Starr, and Willacy) and identification of ARS as the coordinator of the research activities of the initiative. The research plan would consist of at least three phases: (a) performing an assessment of the nutrition and health needs of the region; (b) selecting subsets of residents to follow and tracking changes in nutrition and health; and (c) implementing nutrition intervention strategies meant to improve the nutrition and health of men, women, and children of the Lower Rio Grande Valley.

The partners listed above have existing resources and similar interests that will be enhanced by the formation of this consortium. ARS is well suited to coordinate the research activities of the partners as a part of its ongoing human nutrition research program. Additional financial resources of \$6 million per year were estimated to be necessary to support the research. Roles and responsibilities for each partner will be determined at a series of joint planning sessions.

Through this collaborative initiative, the health and wellness of individuals, families, and communities in the Lower Rio Grande Valley will be improved. Existing barriers and strengths affecting nutritional status will be identified, and intervention strategies will be developed and implemented. Capacity will be built in communities to enhance the sustainability of the successful interventions. This initiative will also provide the focus for a number of institutions that primarily serve the Hispanic population in South Texas to work toward common goals in nutrition research and education both formally and informally.

OVERVIEW OF THE INITIATIVE

The consortium began a series of monthly workshops with the following objectives: to describe the strength and resources of each partner; to determine existing food and nutrition programs or projects in the four counties; to identify additional partners; and to develop a white paper on the Lower Rio Grande Valley NIRI to be used for public education and to secure additional funding.

The group agreed that ARS would direct and coordinate the initiative and provide a full-time director when

funded. ARS continues to supply a facilitator and administrative support for the activities of the consortium. Each institution named individuals to be contact persons to participate and provide the institutional liaison through this organizational period.

Guiding principles for operation were agreed upon as follows: collaboration, multidisciplinary participation, communication within and between the institutions, using a process of community-based research, and integration of outreach efforts. Funding for consortium activities would be based on participation in research efforts agreed to by the entire group. Initial projects discussed were a review of the literature to determine what is already known about the nutrition and health status in the four counties, and a survey of existing resources, programs, and agencies related to food and nutrition in the area. Five committees were suggested for operation: steering, administrative oversight, research, communications, and publications.

The mission of the initiative was discussed and the following statement formulated: *to improve the nutritional health of the population of the Lower Rio Grande Valley through effective nutrition awareness, education, intervention, and research at the family and community level.* Each institution presented information regarding institutional expectations from the initiative, institutional contribution toward the research (i.e., expertise, variety of disciplines, students, facilities, funding, and time), and a description of current research projects by faculty related to nutrition and health.

Additional programs and interventions under way in the Lower Rio Grande Valley were identified, and individuals were invited to present to the consortium. Materials related to these projects were collected, shared with the group, and archived for future reference.

These presentations led to the identification and addition of new partners for the consortium, namely, The University of Texas Health Science Center at Houston School of Public Health and its Brownsville Regional Campus, The University of Texas at Brownsville and Texas Southmost College, Texas A&M School of Rural Public Health, and the USDA Children's Nutrition Research Center, Baylor College of Medicine, at Houston. A non-funded cooperative agreement was negotiated and signed by all institutions to recognize the formal creation of the consortium.

EVOLUTION OF THE PRESENT MONOGRAPH

Because of the variety and extent of programs existing in the valley, the consortium agreed that its first research effort would be to identify and describe as many of these programs as possible. The data would be organized into a monograph similar to the one published by Delta NIRI (Lower Mississippi Delta Nutrition Intervention Research Consortium, 1997). ARS agreed to fund the project and solicited an institution from the consortium to accept the responsibility of the research.

Dr. R. Sue Day from The University of Texas Health Science Center at Houston School of Public Health agreed to direct the research. She formed an investigative team composed of representatives from The University of Texas–Pan American, The University of Texas Health Science Center at Houston School of Public Health and its Brownsville Regional Campus, and ARS. Dr. Day chaired the team whose task was to develop the objectives and scope of the research, develop methodology and instruments, establish a timeline, and pilot test the instruments. Two graduate students, Julie Contreras and Dalia Lovera, were employed and assigned to collect the data.

The contents of the monograph were designed and shared with the consortium. After minor revisions, individuals at partner institutions volunteered to write chapters for the monograph. These chapters were to introduce the initiative and region; describe the physical environment; and profile the demographic, social, economic, and geographical characteristics of the Lower Rio Grande Valley. Furthermore, the authors were to describe nutrition-related health problems; knowledge and attitudes regarding food, nutrition, and health; and the food and nutrient intake of the residents. This monograph was to be written based on the literature and existing data leading up to the inclusion of new data collected by the investigative team about existing programs and services. Data from these efforts were to inform the consortium, the public, and the U.S. Congress about the food and nutrition problems existing in the Lower Rio Grande Valley and identify what information relative to solutions to the problems was inadequate or nonexistent. Production of the monograph gave individual scientists from the various institutions opportunities to work together on chapters and to have their names associated with those chapters.

FUTURE OF THE INITIATIVE

A draft white paper was prepared by the consortium utilizing input from all partner institutions and their deliberations (see Appendix A). This white paper was designed to inform the public about the efforts of the Lower Rio Grande Valley NIRI. It includes a statement of the problem, a list of partner institutions, and a rationale for collaborative community-based nutrition intervention research in the Lower Rio Grande Valley. In addition, it describes the role of the consortium in the initiative research. It will be used as a basis to achieve public financial support for the research efforts.

Presently, the consortium is describing the scope of the initiative, developing a strategic plan, becoming familiar with various communities in the Lower Rio Grande Valley, learning about community-based participatory methods of research, and developing research goals and objectives to fulfill the mission. A manual of operations is being developed that describes the policies and procedures to be used in decision making, communicating, developing research protocols, and publishing the results of the consortium's work.

The multidisciplinary scope of the consortium will provide for research in lifestyle behaviors, psychosocial factors, and cultural, agricultural, and environmental issues related to community-based nutrition interventions. Other outcomes of the research will be in the economic, sociological, and public policy areas. For example, researchers will seek to identify costs of nutrition-related diseases specific to the Hispanic population and nutrition interventions that may have an impact on national policy in food and nutrition, including those that reduce health care costs. In addition to advancing the research capabilities of each institution, this initiative will provide an invaluable educational resource for students who want to learn about food, nutrition, and Hispanic culture within the communities where they work and go to school.

RESOURCES

Clearly additional resources, financial and otherwise, will be needed to build the necessary capacity for communities of the Lower Rio Grande Valley to partner with the consortium in the implementation of nutrition interven-

tion strategies. The consortium is committed to securing additional funding and the development of expertise to make the mission statement a reality: *to improve the nutritional health of the population of the Lower Rio Grande Valley through effective nutrition awareness, education, intervention, and research at the family and community level.*

REFERENCE

Lower Mississippi Delta Nutrition Intervention Research Consortium. (1997). *Nutrition and health status in the Lower Mississippi Delta of Arkansas, Louisiana, and Mississippi: A review of existing data.* Rockville, MD: Westat.