

Qureshi, Lubna
NTDT 5310
July 27, 2012

# **Table of Contents**

1.	Dackground
2.	Introduction
3.	Nutritional Epidemiology of Older Adults Living Alone at Nutritional Risk
4.	Policy Background
	a. Policy at Work
	b. Strategic Advantages and Disadvantages Related to Policy Implementation
5.	Community Needs Analysis
	a. Data Analysis
	b. Available Resources
	c. Promotional programs
6.	Business Plan, (Health and Nutrition Directory Services)
	a. Table of Contents
	I. Executive Summary
	II. Mission Statement
	i. Goal
	ii. Objectives
	III. Program Overview and Services
	IV. Program Organization and Management
	V. Marketing Strategies
	VI. Financial Management

	a) Budget				
	b) Budget Analysis				
VII.	Program Evaluation				
VIII.	Appendix				
7. Gran	t Proposal				
I.	Transmittal Letter				
II.	Title Page				
III.	Abstract				
IV.	Needs Assessment				
	i. <b>Goal</b>				
	ii. Objectives				
v.	Methodology				
VI.	Program Evaluation and Dissemination				
VII.	Budget				
	i. Budget Analysis				
VIII.	Timeline of Proposed Activities				
IX.	Appendix				
8. Lette	r of Advocacy				
9. Exec	utive Summary				
10. Lessons Learned					
11. Refe	rences				

#### **Background**

Social isolation among older adults, 65 years and older, in America is an issue that has grown in intensity since the 1800's. In the past, many cultures practiced the joint family system where parents lived with their children, grandchildren, and great-grandchildren under one roof. Unfortunately this trend had decreased over the past century with older adults living independently and without assistance from their offspring. There may be various social and historical causes that steered the elderly towards living alone. Economic migration, demographic effects, personality, death of a spouse and longer lifespan are some of the factors that augmented the practice of living alone among older adults. In addition, increased scientific advancement and modern medicine played key roles in enhancing the physical independence of older adults. Modern medicine not only increased the life expectancy but also impacted the overall health and well being of older adults. Research shows a decline in deaths associated with chronic diseases. According to data prepared by Administration on Aging of the United States Department of Health and Human Services, in 1900 only 4.1% of the US population was over 65 years of age while in 2009, 12.9% of people lived up to age 65 or more, depicting an increased trend in longevity.1

#### Introduction

The increased life expectancy has its own consequences. There are certain behavioral risk factors that play key roles in determining living conditions among older adults. Heavy health care costs,

behaviors relating to increased independence, and social isolation are some of the many factors that directly or indirectly affect the quality of life in older adults. According to the report, "We the American Elderly," prepared by the United States Department of Commerce in 1990, 8.8 million older adults lived alone in the United States.<sup>2</sup> Social isolation is one of the major behavioral risk factors that jeopardizes the physical and mental health of older adults directly affecting their nutritional status.<sup>3</sup> Many older adults prefer to live independently without being a burden on their children. In case of the death of a spouse they become more vulnerable to loneliness which may directly impact their nutritional status. Studies have found that eating alone is a strong predictor for being at risk of malnutrition among older adults.<sup>4</sup> Research also provides evidence of a strong correlation between living alone and functional impairment, risk of social isolation and poor food intake. In a research study, initiated in the United Kingdom, researchers tried to explore the clinical significance of living alone by investigating the association between lone status and health behaviors and health status. The research findings reported that elderly living alone experienced fair to poor health and difficulties in instrumental and basic activities of daily living.<sup>5</sup> Along with physical, biochemical and psychological deficit, impaired Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) may also point to the incidence of nutritional risks among older adults.

#### Nutritional Epidemiology of Older Adults Living Alone at Nutritional Risk

Being at nutritional risk is a global problem among older adults living alone. Even though the problem is on the rise, unfortunately very few studies have addressed the issue in detail. A recent

study in Norway captured the grim picture of older, home-dwelling adults and risk of undernutrition. A cross sectional design was applied to assess the nutritional risk in a sample of 450 adults ages >65 years. The final sample included 158 participants who responded to the questionnaire. The main purpose of this study, "Living Alone, Receiving Help, Helplessness, and Inactivity are Strongly Related to Risk of Undernutrition Among Older Home-dwelling People", was to demonstrate the prevalence of being at risk for undernutrition in older adults and to relate the results to self-reported self care ability, and sense of coherence and health related issues.<sup>6</sup>

During their research the authors found a strong correlation between living alone and nutritional risk in older adults. In the analysis, living alone was considered a predictor of risk for poor nutritional status of older adults thus suggesting a **temporal relationship**. The authors concluded that living alone is a causative factor that strongly contributes to malnutrition in older adults. The logistic regression analysis suggested the **strength of association** by considering living alone as a predictor of nutritional risk in older adults. Study revealed an OR (odds ratio) of 7.46 indicating greater odds of malnutrition in older adults living alone than those who were not. In addition, the analysis in the nutritional screening instrument, the Nutritional Form for the Elderly (NUFFE), supported a precise and **specific association** as it measured 59.4% widow/er at nutritional risk as compared with 28.1% married older adults. The data suggested that those who lost a spouse were at a greater nutritional risk. Other studies have found similar associations. For example, a study revealed that older widows lost the meaning of cooking and eating and that they were at risk of poor nutritional intake. Chris Rosenbloom, PhD, an associate professor of

nutrition at Georgia State University in Atlanta conducted a study in 1993 on the effects of widowhood on nutrition.<sup>4</sup> The study found significant differences in eating behaviors between married and widowed older adults. While 98% of married older adults found mealtimes enjoyable, a mere 26% of the widowed felt the same way. Half of the widowed older adults stated that "to eat was a habit or to keep from starving."

The above referenced study illustrated somewhat similar results that were found **consistent** in other studies. Few other studies confirmed the association between older adults and nutritional risk. The consistent findings from two Swedish studies demonstrated an association by identifying lone status as a predictor to nutritional risk. The study findings revealed that living alone is **congruent** with existing knowledge about nutritional risk among older adults. Apparently living alone, among older adults, is a multi-factorial state which gives birth to many other conditions such as poor health, decreased physical ability, social isolation, depression or poor food intake that ultimately lead to high risk of malnutrition.

The afore-mentioned studies did not address any **biological plausibility, dose response and experimental evidence** since these epidemiological elements may involve unethical experimentation in regards to poor nutritional status of older adults. Though the study mentioned other researches that examined the factors leading to nutritional risks among older adults there is a strong need to further investigate the association between older adults living alone and increased risk of poor nutritional status.<sup>5,7</sup>

**Policy Background** 

Ever changing research immensely affects the food and nutrition environment. With new studies,

legislators and lawmakers strive to address the emerging issues by formulating policies that

directly or indirectly influence the target population. Five decades ago, there were inadequate

community, social and nutrition services for older adults. Recognizing this discrepancy,

Congress passed the Older Americans Act (OAA, PL 109-365) establishing grants for states to

use for community planning and social services for older adults.<sup>8</sup>

The law also established the Administration on Aging (AoA) to oversee the grant programs

under the umbrella of OAA. In 1972, Title VII was created under OAA authorizing funds for a

national nutrition program for older adults. Later amendments added transportation assistance for

older adults. 8 OAA not only manages the social and nutrition services program delivery but also

authorizes programs through a national network of 56 state agencies and 629 area agencies on

aging, and nearly 20,000 service providers.9 Elderly Nutrition Program under Title III of AoA

provides congregate and home delivered meal services in addition to funding programs such as

nutrition screening, assessment, education and counseling to help older adults meet their health

and nutritional needs.<sup>10</sup>

Research shows that older adults who participate in Elderly Nutrition Program are better

nourished and less socially isolated.<sup>11</sup> Another study, to determine the effectiveness of the

Elderly Nutrition Program in promoting the health and well-being of older adults and to compare

the participants of home-delivered meals and congregate meal sites, revealed that a greater

percentage of home meal participants had better health outcomes than the congregate meal attendees.<sup>12</sup> Eighty four percent of home delivered meal patrons reported to feel healthier due to their participation in the program than the congregate meal participants (67%). On the other hand, home delivered meal participants experienced greater loneliness than those attending congregate meals. In order to support health policy development, the above mentioned study supports a Congress mandated national evaluation of the Elderly Nutrition Program.<sup>12</sup>

#### a) Policy at Work

According to Title 40 of Social Services and Assistance in the Texas Register of Texas Department on Aging, in 2000 a policy (Rule 270.5), Nutrition Services Requirements was proposed to establish the requirements for providing congregate and/or home delivered nutrition services. Along with many other statutes the policy required that "nutrition education must be provided on a monthly basis to congregate and home delivered meal clients." Two months later, the policy was adopted to be implemented on local level. 13

Nutrition education is one of the major components of nutrition services provided by the State agencies. Nutrition education not only helps to promote health but also to improve diets and nutrition-related behaviors supporting improved food selection, food safety and other health related practices among non-institutionalized older adults. OAA Nutrition Programs (Section 330) provide unique opportunities to deliver nutrition based messages that may positively affect the nutritional status of older adults. Thus, activities designed according to their needs, behaviors and desires may be well received by older adults.

#### b) Strategic Advantages and Disadvantages Related to Policy Implementation

Besides health promotion, nutrition education enhances the functional independence as it addresses the nutrition related perception and behaviors of home bound older adults. Under section 214 of Older American Act's Amendments of 2006, nutrition education programs along with physical activity and activities enhancing optimal nutrient intake as well as nutritional assessment and counseling opportunities need to be provided to older adults.<sup>14</sup>

At present, nutrition education services are regularly provided by congregate meal sites but home bound older adults or those living alone may lag behind in receiving consistent nutritional information. Though nutrition education is mandated by law, its evaluation is not required; leaving significant gaps in the programs' effectiveness. In addition, there is a strong probability that home bound, socially isolated older adults may not be aware of all the services and resources available through local agencies. The need for combined and comprehensive services for older adults is vital to ensure their overall health and well-being.

#### **Community Needs Analysis**

Living alone combined with all the other factors, is one of the direct contributors to nutritional status and affects the overall health and wellbeing of older adults. To assess the correlation between lone status and nutritional risk based on beliefs and knowledge of older adults and to determine the availability of comprehensive nutritional services for older adults in San Antonio, Bexar County, a community needs assessment was performed. The community needs assessment addressed the following objectives:

1. Identify the factors that affect the nutritional status of older adults

2. Identify the adequacy of nutrition education components of programs that provide

nutritional services to older adults

3. Determine the effects of nutrition education provided to older adults in different group

settings

4. Discover the beliefs and knowledge of socially isolated older adults in regards to meal

preparation and food intake

The findings of the community needs assessment revealed that at present there are many

federally mandated as well as privately operated programs that serve to meet the nutritional

needs of older adults. As mentioned previously, Older Americans Act (OAA) Nutrition Program

initiated by the US Department of Health and Human Services (USDHHS) aims to improve the

nutritional status and overall health and wellness of older adults. Congregate Meals Program and

the Meals on Wheels are examples of such programs.

Congregate Meals program is an excellent way to address social isolation among older adults.

According to the Administration on Aging, the most common service provided by nutrition

projects is congregate meals with 95% of projects involved in congregate meals services while

81% provide home-delivered meals in the United States. Nutrition services are mainly provided

by Elderly Nutrition Program and funded by Title III of Older Americans Act. Approximately

54% of congregate meal programs also operate a home-delivered meals program from their

location. Congregate sites provide nutrition education, recreation and social activities, and

information and referral services. Nearly three-quarters of the congregate meal services provide transportation between the site and participants' home, or provide other transportation services (such as assisted transportation). Approximately 87% of the projects reported providing nutrition education.<sup>15</sup>

A growing body of research correlates disease and certain chronic conditions, financial insecurity, lack of participation in nutritional services and social isolation with impaired nutritional status. According to a report, Aging Texas Well Indicator Survey, by the Texas Department of Aging and Disability Services, in 2008, 88% older adults had one or more chronic conditions; more than 25% older adults reported to have a mental health diagnosis from 2004 to 2008; older adults spent 1/3 of their income on housing costs; only 6 % reported to participate in the education classes or any formal programs offered; and 25% considered living alone a problem. According to the US Census Bureau, in 2010, 138,604 older adults lived in San Antonio, Texas while 35,070 of those lived alone. Uncertain financial conditions hamper the ability of older adults to purchase and prepare nutritious foods thus indirectly affecting their nutritional status. In San Antonio, 16,557 older adults, above the age of 65, lived below poverty level in 1999, according to the US Census Beureu. Due to current unreliable economic conditions the rate of older adults living below the poverty level may increase.

Interviews with key informants also revealed the need to address the issues and underlying causes of poor nutritional status in older adults. According to a few local senior program managers, numerous nutrition and education services are available but many older adults do not

take advantage of the services offered due to multiple reasons. Many participants who attend the programs do not fully benefit from the services offered. For example, on average a meal served through the Meals on Wheels program provides 700kcal which is approximately 1/3 of their Daily Recommended Intake. Many older adults on the Meals on Wheels program do not consume the entire meal delivered. Some older adults save half of their meals for supper or to feed their pet.<sup>20</sup> This practice further decreases their daily caloric intake, leaving them susceptible to poor nutritional status and disease. Many older adults find it difficult to shop and cook for one person after the death of a spouse. The rate of older adults using medication and alcohol to help cope with elderly depression is also increasing.<sup>21</sup>

#### a) Available Resources

There are several nutritional service programs that provide not only meals through congregate meals and Meals on Wheels programs but also nutrition education sessions, fellowship, transportation, and medical checkups. Comprehensive Nutrition Services, under the authority of the City of San Antonio, provides hot meals to 4,000 area older adults at 84 congregate meals sites. Seven One-Stop Centers affiliated with Comprehensive Nutrition Services, provide medical checkups, classes, nutrition education sessions, fellowship and congregate hot meals.<sup>22</sup> Christian Senior Services of Bexar County provides the Meals on Wheel program to 3639 area older adults. Senior Companion Program, a part of Christian Senior Services, provides opportunities for older adults to somewhat decrease social isolation. Through the Senior Companion Program volunteer older adults are paired with home bound older adults to provide

camaraderie and light household help. Some volunteers provide limited transportation services to medical appointments, shopping and service centers.<sup>20</sup> The San Antonio Food Bank provides commodities to older adults through one-stop centers and those living in older adult apartments. Haven for Hope, in collaboration with the Food Bank, provides meals and services.<sup>22</sup> Senior Farmer's Market Nutrition Program provides low income older adults with coupons that can be exchanged for eligible foods at farmer's markets, roadside stands, and community supported agriculture programs.<sup>3</sup> In the city of San Antonio, nutrition service managers are required to conduct brief nutrition education sessions twice a month. Lectures, printed materials, blogs, visual displays, group discussions, personal discussions, workshops, cooking classes, or trips to supermarkets are some of the techniques used to convey nutrition education. The Meals on Wheels program at Christian Senior Services uses printed handouts and monthly blogs to provide nutrition education to its home-bound clients.<sup>20, 22</sup>

#### b) Pilot Program

Even though there is an increasing number of programs and services available, the challenging question is how these services impact the overall health and nutritional status of older adults? Though, some data is available on the services provided, further studies are needed to evaluate the effectiveness of nutritional programs and services. Promotion of nutrition education sessions, addressing the nutritional challenges and strategies to overcome those challenges, is an approach that can be utilized at community level to enhance the nutritional well being of older adults. In

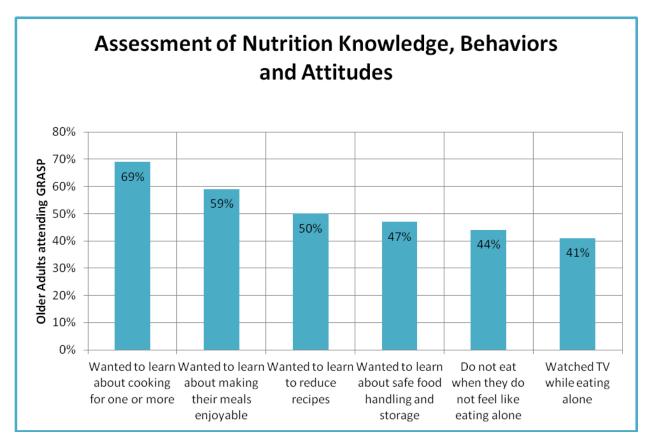
an effort to assess the challenges faced by older adults living alone and its impact on their nutritional status, a pilot education session was conducted at GRASP, in October 2011. The pilot education session contained two pre and post-presentation surveys. The nutrition education session was held to educate older adults to plan and prepare meals for one or two people, with emphasis on recipe reduction and safe food handling and storage. More than 35 older adults attended the presentation and 95% liked the session and expressed willingness to attend such sessions in future. The survey and verbal feedback from attendees at GRASP identified the need for collaborative resources and educational material specifically geared towards home-bound older adults.

#### c) Data Analysis

Two pre-presentation and post-presentation surveys were conducted at Greater Randolph Area Services Program (GRASP), an independent community services program that consolidates with United Way to provide congregate meals, transportation to and from the congregate meals site and medical appointments to approximately 65 registered, homebound older adults and the disabled living in Converse, Texas.<sup>21</sup> The surveys included a sample of 32 older adults. Among those surveyed 34% older adults lived alone. The pre-presentation survey assessed the nutrition knowledge, behaviors and attitudes of participants when eating alone (Figure 1). In addition the survey determined, based on the responses of the participants, the need for specific nutrition education resources and opportunities.

According to the pre-presentation survey 69% older adults wanted to learn more about cooking for one person or more while 59% wanted to know how to make their meals enjoyable. Fifty percent of the older adults wanted to know how to reduce the yield of recipes, and when asked about the safe food handling and storage, 47% responded with willingness to learn more about it.

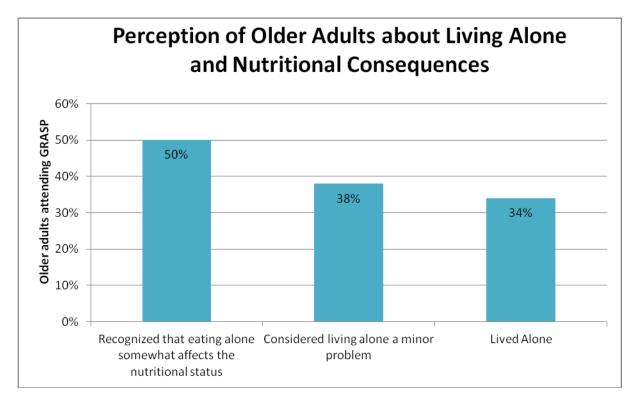
Figure:1-Pre-presentation assessment of nutrition knowledge, behaviors and attitudes of 32 older adults attending GRASP, (Converse, Texas 2011).



Meal consumption behavior among older adults living alone revealed a high prevalence of watching TV while eating alone. Forty one percent of respondents stated that they watch TV when eating alone, while 13% reported reading while eating alone. Both habits can play a

significantly negative role in food intake leading to inadequate meal consumption. When asked what they do when they do not feel like eating alone, 44% responded that they simply do not eat anything. This statement is sufficient enough to design intervention strategies to address the food consumption behavior and poor nutritional status of older adults living alone.

Figure:2- The knowledge and perception of 32 older adults, attending GRASP, about living alone and its implication on health. (Converse, Texas 2011)



In an attempt to measure the perception of older adults about living alone and its general implication on health, a post presentation assessment was initiated (Figure 2). Thirty eight percent of older adults in the sample, considered living alone a minor problem while fifty percent identified that eating alone somewhat affects their nutritional status.

#### **Program Proposal**

In order to fulfill the needs of the target population a business plan and a grant proposal is being presented. The business plan covers all the aspects of a proposed program that includes the program's mission statement, goal and objectives, organization and management, services, marketing strategies, financial management and sustainability, and evaluation. To financially sustain the program a grant proposal is submitted that explains the need for required funds. A letter of advocacy to local legislature is also included to reiterate the significance of need for nutrition education services for older adults.



# HaNDS for Older Adults (Health and Nutrition Directory Services) Business Plan

Qureshi, Lubna

July 27, 2012

96, ABC Avenue Model Town, San Antonio, 99999 1-800-123-4567 www.handsforolderadults.org

# **Business Plan**

# **Table of Contents**

1.	Executive Summary	
2.	Mission Statement.	
	a. Goal	
	b. Objectives	
3.	Program Overview and Services	
4.	Program Organization and Management	
5.	Marketing Strategy	
6.	Financial Management	
	a. Budget	
	b. Budget Analysis	
7.	Program Evaluation	
8.	Appendix	
9.	Grant Proposal.	
	i. Transmittal Letter	
	ii. Title Page	
	iii. Abstract	
	iv. Needs Assessment	
	a. <b>Goal</b>	
	b. Objectives	

v.	Methodology
vi.	Program Evaluation and Dissemination
vii.	Budget
	a. Budget Analysis
viii.	Timeline of Proposed Activities
ix.	Appendices

#### I. Executive Summary

The information based on the GRASP survey results and interviews with key informants revealed the need for intervention strategies suitable for older adults to tackle the issue of nutritional risk. As mentioned above, there are multiple services available for older adults but many older adults are either not familiar with them or choose not to benefit from them. In addition, there might be many contributing factors that may hinder the ability of older adults to fully benefit from the governmental services. Lack of transportation, lower computer literacy and social isolation related to perceived helplessness are some common factors that may keep older adults from taking advantage of the services provided. Information of local services for older adults is available on the internet but in many cases it is not older adult user-friendly or easily accessible by those not computer savvy.

In light of the factors associated with older adults and increased nutritional risk, a comprehensive nutrition and activity information service program along with educational material for older adults is being proposed. HaNDS for Older Adults is a partnership program with the city of San Antonio to collaborate the information on city wide available resources and nutrition services, in the form of a directory, for non-institutionalized older adults living alone. The program aims to address the prevalence of poor nutritional status among non-institutionalized older adults by providing comprehensive resources, information and knowledge of nutritional and social activities offered in their respective communities along with a nutrition education manual.

#### **II.** Mission Statement

The mission of HaNDS for Older Adults is to provide a comprehensive nutrition and activity information service to help older adults find valuable resources, in their respective districts, which may help decrease the prevalence of social isolation and related nutritional consequences thus enhancing overall health and well being.

#### I. Goal

To decrease the prevalence of adverse nutritional issues for older adults by providing comprehensive information of nutrition, health and activity resources and services.

#### II. Objectives:

- 1. Increase the number of older adults utilizing the nutritional and wellness services and resources provided at community level through multiple outlets.
- 2. Provide necessary tools and resources to older adults, living alone or in the company of others, in order to enhance their quality of life by helping them manage their dietary environment on a day to day basis.
- Provide nutrition related information and education based on recipe modification, cooking for one or two, food safety and how to make mealtimes enjoyable, as recognized by the survey respondents at GRASP.
- 4. Increase access to community meal and activity programs by providing information about the area programs and organizations offering transportation to older adults.

5. Increase understanding of older adults in regards to diet, nutrition, exercise and food shopping by providing access to a resource directory.

#### **III.** Program Overview and Services

Currently there are 10 districts in the city of San Antonio that cater to the dietary needs of 138,604 older adults.<sup>17</sup> Each district contains three or more service centers that offer congregate meals in addition to recreational, educational and wellness activities. Some facilities offer transportation services as well. Alamo Services Connection (ASC) is a technology based information and referral system that operates under Bexar Area Agency on Aging (BAAA).<sup>23</sup> ASC mainly caters to the needs of older adults ages 60 and above, people with disabilities and their families residing in Bexar County. The wide range of information provided on ASC's website makes it cumbersome for older adults to look for a specific area of interest. Web based information may benefit only computer savvy older adults. Nevertheless, ASC offers phone operated information services; it does not provide supplemental resources on nutrition education. Survey respondents at GRASP strongly recognized the need of nutrition related information and education based on simple topics such as recipe modification, cooking for one or two, food safety and how to make mealtimes enjoyable.

HaNDS for Older Adults is a program that will not only provide information on available resources and services but will also provide nutrition education based on nutritional issues most

commonly faced by older adults. HaNDS for Older Adults intends to reach all the older adults living in San Antonio regardless of their receiving Comprehensive Nutrition Program services, Meals on Wheels services or other dietary assistance.

#### IV. Program Organization and Management

Programs such as HaNDS for Older Adults can provide comprehensive nutrition, health and activity resources and services information to decrease the incidence of nutritional risk among older adults. HaNDS for Older Adults program has two components; one deals with the program development and the other with the combination of services directory with nutrition education. Program development involves updating the available information of existing services provided through Comprehensive Nutrition Program, Meals on Wheels and other non-profit organizations in ten San Antonio area districts.

Distance and demographic location of senior centers is another factor that may hamper the ability of many older adults to participate in nutrition programs and services. Many older adults resist driving due to certain health and psychological conditions. Some depend on others and need transportation for trivial matters as grocery shopping or appointments, etc. Several transportation services are offered in the Alamo area that older adults can utilize to increase their independence. Information on transportation services, offered by the city and partner agencies and organizations, is also included in the directory. Based on the map of each area district, an updated list of all the activities and services offered at each site is provided along with the contact information of the program in-charge at each site. Information services will be provided

through a telephone hotline and a website. The website will be easy to navigate with legible font sizes for older adults.

For older adults, benefits of healthful eating include resistance to illness and disease, higher energy levels, faster recuperation times, and better management of chronic health problems. Focusing on the benefits of healthful eating, a printed nutrition education component is combined with the services' directory in addition to the information of services provided. Each district is anticipated to have its own directory, which will be distributed to each household with older adults residing in the district. The nutrition education component of the directory will cover the following topics:

- 1. Diet and Nutrition
- 2. Eating Right, Eating Healthfully
- 3. A Guide to Servings from Food Groups and Serving Sizes
- 4. Tips to Eat More Fruits and Vegetables
- 5. Shopping Savvy
- 6. Reading Labels
- 7. Cooking for One or Two
- 8. Recipe Reduction
- 9. Hydration and Exercise
- 10. Tips to Enjoy the Meals
- 11. Numbers to Remember for Food Safety
- 12. Tips to Store Foods Safely

For smooth operation and optimal results, a strong body of organization is vital. HaNDS for Older Adults, in partnership with the city of San Antonio, will serve the older adults ages 60 and above. The company headquarters will operate from a call center based in San Antonio. A Registered Dietitian (RD) will oversee all operations as the project manager. The RD will also be responsible for designing, formulating and updating the health and nutrition directory.

The call center will be operated by phone helpline representatives and office assistants to provide information and answer queries. Office assistants will also be responsible for clerical and bookkeeping responsibilities that include printing and mailing of the resource directory. The interactive website specifically designed for older adults will be managed by a webmaster who will closely monitor all the functions and will regularly update any pertinent information.

The service directory will need yearly revision for the program to maintain up to date information. HaNDS for Older Adults intends to provide services and resources to older adults for three consecutive years. Since the HaNDS for Older Adults is a partnership program, after three years it will be entrusted to the City/County Joint Commission on Elderly Affairs. Program's sustainability will be enhanced based on the provision of efforts by the City/County Joint Commission on Elderly Affairs.

#### V. Marketing Strategies

Aging healthfully and gracefully is what older adults wish for. Thus services and products designed according to their needs and desires are well received by older adults. Based on the needs and wants of the target market, the project manager will design marketing strategies. The

marketing concept of customer satisfaction will be given priority even though the services and

directory will be provided free of cost to the customers.

In order to successfully initiate HaNDS for Older Adults, strong marketing and promotion

strategies are planned to be executed. The program will be initially promoted through a press

release from the City/County Joint Commission on Elderly Affairs of San Antonio. Introductory

flyers will be mailed to households with older adult residents in the city of San Antonio,

informing them about HaNDS for Older Adults program. According to the latest census data, in

2010 approximately 138,604 older adults lived in San Antonio.<sup>17</sup> The resource directory will be

mailed to each household with older adult residents. Both the services directory and introductory

flyer will display the program's website and telephone hotline.

The nutrition and services directory is prepared in legible font sizes with colorful illustrations

related to the topics discussed. Evidence based nutrition information is utilized in the formulation

of the directory. Socioeconomical and psychosocial conditions experienced by average older

adults living alone are considered for designing the proposed educational material. The design

and formatting of the directory is organized based on the general literacy level of the target

population. The principles of andrgogical learning are applied in the formulation of the directory.

The easy to maneuver flip chart directory can be conveniently displayed on the wall for quick

reference.

#### VI. Financial Management

Since HaNDS for Older Adults is a program in partnership with the City/County Joint Commission on Elderly Affairs of San Antonio, funding will be considered through formula or project grants. Many agencies under the umbrella of Department of Health and Human Services play a key role in addressing the issues related to older adults. Centers for Disease Control and Prevention (CDC) offers programs based on health promotion and disease prevention for all ages including older adults. Community-Based Prevention Health Activities Grants, a part of Community Transformation Grants, is a community based competitive grant program under PL 111-148, section 4201, administered by CDC.<sup>24</sup> The grant is based on evidence-based community preventive health programs to reduce chronic disease rates, addressing health disparities by designing health promotion and disease prevention programming with concentration on nutrition, physical activity, and emotional well-being and overall mental health. The grant program is open to state and local health departments and non-profit organizations making it favorable for the city of San Antonio. In order to secure funding proposals are submitted for federal grants. A sample of a grant proposal is enclosed.

#### a) Budget

In order to smoothly operate the program a budget of \$ 265,577 is proposed. Following is a brief overview of the proposed budget. The budget includes employees' salaries, all the components of HaNDS for Older Adults program and overhead charges.

HaNDS for Older Adults, Health and Nutrition Directory Services

HaNDS for Older Adults, Health and Nutrition Directory Services			
Annual Budget			
Categories	Proposed Expenses		
Payroll	\$ 174,870		
Marketing/Promotion	\$ 12,786		
Directory Development/Shipment/ Program Evaluation	\$53,361		
Rent	\$ 9,540		
Utilities	\$ 4,520		
Equipment	\$ 10,500		
Other			
<b>Total Operating Expenses</b>	\$ 265,577		

#### b) Budget Analysis

The employee payroll constitutes the chief expense comprising of \$174,870. The employee salary estimates are based on the current San Antonio relative pay scale. According to <a href="https://www.Salary.com">www.Salary.com</a>, a Registered Dietitian earns \$50,158 annually while a webmaster, \$52,086. The annual average salary for the call center representative is \$27,542. The annual salary of the three employees would add up to \$72,626. Approximately 50,000 copies of the introductory flyers will cost \$1,596 while bulk mail to the target population will add \$11,190. Printing and shipment of the services directory is another major area that requires greater amount of funds.

The printing of the services directory will cost \$16,376 while shipping through bulk mail will cost an estimated \$18,500. The printing of biannual surveys will cost \$3,192 while the prepaid postage with bulk business reply mail service including annual permit is estimated at \$15,293. Annual rent for the call center at a centrally located area with paid electricity is estimated at \$9,540 while utilities at \$4,520. The estimated cost of office equipment is \$10,500. End of the year budget report will help determine the budget for the next year.

#### VII. Program Evaluation

In order to enhance the program's effectiveness and functional efficiency, biannual evaluations will be performed. Both formative and impact evaluations may help ensure the program's success or need for modification. In depth evaluations, during the planning phase, help monitor the effectiveness of program development. Formative evaluation was performed at GRASP utilizing the surveys that determined the need for nutrition education component of the program. The surveys also helped to select and design the educational elements of the directory. The biannual impact evaluation can be utilized to examine whether the program goals and objectives are met. Impact evaluation will consist of multiple variables such as beliefs, attitude, self-efficacy and knowledge of the target population. Impact evaluation will also help design future strategies in case the need for any amendments is recognized. The end of year report will comprise of the data obtained from formative and impact evaluations and will be disseminated to stakeholders and consumers.

# VIII. Appendix

- 1. HaNDS for Older Adults, Health and Nutrition Directory Services
- 2. HaNDS for Older Adults, Introductory Flyer.pub

# **Grant Proposal**

#### I. Transmittal Letter

July 27, 2012 Center for Disease Control and Prevention Proposal Service Unit Room 100, 101 Lincoln Ave Washington, DC, 12347

Dear Sir/Madam,

My colleagues and I are pleased to submit the enclosed proposal, HaNDS for Older Adults, Health and Nutrition Directory Services, in response to the Center for Disease Control and Prevention's call for proposals, category 100.0, Community Transformation Grants. The proposal requests for \$265,577 annually for a three year project. Based on the impact evaluation the project may be entrusted to City/County Joint Commission on Elderly Affairs after three years.

Enclosed please find a copy of the proposal as specified in the Request for Proposal. Please feel free to contact me with any queries you may have. I am looking forward to your reply.

Sincerely,

Lubna Qureshi, Project Manager, City of San Antonio 96, ABC Avenue Model Town, San Antonio, 99999 Phone: 1-800-123-4567

E-mail: qureshil@livemail.uthscsa.edu

Qureshi, Lubna NTDT 5310 July 27, 2012

#### HaNDS for Older Adults, Health and Nutrition Directory Services

## II. Title Page

Project Title: HaNDS for Older Adults, Health and Nutrition Directory Services

Grant Program: Center for Disease Control and Prevention, category 100.0, Community

**Transformation Grants** 

**Proposed Start Date:** January 15, 2013 **Proposed End Date:** January 14, 2014

Funds Requested: \$265,577

**Project Director:** Lubna Qureshi Project Manager, City of San Antonio 96, ABC Avenue

Model Town, San Antonio, 99999

Fax: 210-999-9999 Phone: 1-800-123-4567

E-mail: qureshil@livemail.uthscsa.edu

#### The award should be made to:

City/County Joint Commission on Elderly Affairs

#### **Authorized Organizational Representative:**

Charles Dickens, Operational Executive Office of Area Agency on Aging 96, DEF Avenue Model Town, San Antonio, 99999

Fax: 999-999-9999 Phone: 1-800-111-0000

E-mail: Charlesd@sanantonio.com

#### III. Abstract

HaNDS for Older Adults is a program to collaborate the information on city wide available nutrition services and resources for home bound older adults. At current there are 10 districts in the city of San Antonio that cater to the dietary needs of 138,604 older adults. Each district contains three or more service centers that offer congregate meals in addition to recreational, educational and wellness activities. Some facilities offer transportation services as well. HaNDS for Older Adults is a program aiming not only to provide information on available resources but also an area nutrition and activity services directory, along with nutrition education resources based on nutritional issues most commonly faced by older adults. HaNDS for Older Adults intends to reach all the older adults living in San Antonio regardless of their receiving Comprehensive Nutrition Program services, Meals on Wheels services or other dietary assistance.

#### IV. Needs Assessment

Living alone combined with a variety of other factors, is one of the direct contributors to poor nutritional status that affects the overall health and wellbeing of older adults. In spite of federal and state operated programs for congregate meals and home delivered meals, many older adults choose to cook and eat at home regularly or occasionally. Eating alone at home may put the older adults at nutritional risk. Simply not wanting to prepare food for one person is indicative of a serious nutritional risk. Some research studies have found a strong correlation between living

alone and nutritional risk in older adults. Research shows that older adults who participate in Elderly Nutrition Program, a nutrition and meal service program funded by Title III of Older Americans Act, are better nourished and less socially isolated. Another study, to determine the effectiveness of the Elderly Nutrition Program in promoting the health and well-being of older adults and to compare the participants of home-delivered meals and congregate meal sites, revealed that a greater percentage of home meal participants had better health outcomes than the congregate meal attendees. Eighty four percent of home delivered meal patrons reported to feel healthier due to their participation in the program than the congregate meal participants (67%). On the other hand, home delivered meal participants experienced greater loneliness than those attending congregate meals. <sup>12</sup>

Research reveals the need for enhanced nutrition education programs designed to address nutritional adequacy during older years. Moreover, additional efforts are needed to increase the participation of non institutionalized older adults in the nutrition programs and services offered by federal and private agencies. Healthy People 2020, in its health initiatives for older adults aims to, "improve the health, function, and quality of life of older adults."

There are multiple services available for older adults but many older adults are either not familiar with them or choose not to benefit from them. In addition, there might be many contributing factors that may hinder the ability of older adults to fully benefit from the governmental services. Lack of transportation, decreased computer literacy and social isolation related to perceived helplessness are some common factors that may keep older adults from taking advantage of the

manual.

services provided. Information of local services for older adults is available on the internet but in many cases it is not older adult user-friendly or easily accessible by those not computer savvy. In light of the factors associated with older adults and increased nutritional risk, a comprehensive nutrition and activity information service program along with educational material for older adults is being proposed. HaNDS for Older Adults, Health and Nutrition Directory Services program aims to address the prevalence of poor nutritional status among non-institutionalized older adults by providing comprehensive resources, information and knowledge of nutritional

and social activities offered in their respective communities along with nutrition education

In an effort to assess the challenges faced by older adults living alone and its impact on their nutritional status, a pilot education session was conducted at Greater Randolph Area Services Program (GRASP), in October 2011. The pilot education session contained two pre and post-presentation surveys. The nutrition education session was held to educate older adults to plan and prepare meals for one or two people, with emphasis on recipe reduction and safe food handling and storage. More than 35 older adults attended the presentation and 95% liked the session and expressed willingness to attend such sessions in future. The survey and verbal feedback from attendees at GRASP identified the need for collaborative resources and educational material specifically geared towards non institutionalized older adults.

In light of the factors associated with older adults and increased nutritional risk, a comprehensive nutrition and activity information service program along with educational material for older adults is being proposed. HaNDS for Older Adults is a partnership program with the city of San Antonio to collaborate the information on city wide available resources and nutrition services, in the form of a directory, for non-institutionalized older adults living alone. The program aims to address the prevalence of poor nutritional status among non-institutionalized older adults by providing comprehensive resources, information and knowledge of nutritional and social activities offered in their respective communities along with a nutrition education manual.

#### i. Goal

To decrease the prevalence of adverse nutritional issues for older adults by providing comprehensive information of nutrition, health and activity resources and services.

### ii. Objectives:

- Increase the number of older adults utilizing the nutritional and wellness services and resources provided at community level through multiple outlets.
- ii. Provide necessary tools and resources to older adults, living alone, in order to enhance their quality of life by helping them manage their dietary environment on a day to day basis.

iii. Provide nutrition related information and education based on recipe

modification, cooking for one or two, food safety and how to make

mealtimes enjoyable, as recognized by the survey respondents at GRASP.

iv. Increase access to community meal and activity programs by providing

information about the area programs and organizations offering

transportation to older adults.

v. Increase understanding of older adults in regards to diet, nutrition, exercise

and food shopping by providing access to a resource directory.

### V. Methodology

and the other with the combination of services directory with nutrition education. Program development involves updating the available information of existing services provided through Comprehensive Nutrition Program, Meals on Wheels and other city resources in ten San Antonio area districts. Based on each district, an updated list of all the activities and services offered at each site will be prepared along with the contact information of the program in-charge at each site. Additional services offered by city, such as transportation, will also be included in the directory. Directory services will be provided through telephone hotline and a website. The

HaNDS for Older Adults program has two components; one deals with the program development

For older adults, benefits of healthful eating include resistance to illness and disease, higher energy levels, faster recuperation times, and better management of chronic health problems.

website will be easy to navigate with legible font sizes for older adults.

Keeping the benefits of healthful eating under perspective, a printed nutrition education component will be combined with the services' directory in addition to the information of services provided. The nutrition education component of the directory will cover a wide range of topics. Each district will have its own directory, which will be distributed to each household with older adults residing in the district.

The service directory will need yearly revision for the program to maintain up to date information. HaNDS for Older Adults intends to provide services and resources to older adults for three consecutive years. Since the HaNDS for Older Adults is a partnership program, after three years it will be entrusted to the City/County Joint Commission on Elderly Affairs. Program's sustainability will be enhanced based on the provision of efforts by the City/County Joint Commission on Elderly Affairs.

#### VI. Program Evaluation and Dissemination

In order to enhance program's effectiveness and functional efficiency, biannual evaluations will be performed. Both formative and impact evaluations may help ensure program's success or need of modification. In depth evaluations, during the planning phase, help monitor the effectiveness of program development. Formative evaluation was performed at GRASP utilizing the surveys that determined the need for nutrition education component of the program. The surveys also helped to select and design the educational elements of the directory. The biannual impact evaluation can be utilized to examine whether the program goals and objectives are met. Impact evaluation will consist of multiple variables such as beliefs, attitude, self-efficacy and

knowledge of the target population. Impact evaluation will also help design future strategies if the need for any amendments is recognized. End of the year report will comprise of the data obtained from formative and impact evaluation and will be disseminated to stakeholders and consumers. End of the year report will be disseminated to granting agency, stakeholders and consumers.

## VII. Budget

In order to smoothly operate the program a budget of \$ 265,577 is proposed. Following is a brief overview of the proposed budget. The budget includes employees' salaries, all the components of HaNDS for Older Adults program and overhead charges.

HaNDS for Older Adults, Health and Nutrition Directory Services		
Annual Budget		
Categories	Proposed Expenses	
Payroll	\$ 174,870	
Marketing/Promotion	\$ 12,786	
Directory Development/Shipment/ Program Evaluation	\$53,361	
Rent	\$ 9,540	
Utilities	\$ 4,520	
Equipment	\$ 10,500	
Other		
<b>Total Operating Expenses</b>	\$ 265,577	

### a. Budget Analysis

The employee payroll constitutes the chief expense comprising of \$174,870. The employee salary estimates are based on the current San Antonio relative pay scale. According to <a href="https://www.Salary.com">www.Salary.com</a>, a Registered Dietitian earns \$50,158 annually while a webmaster, \$52,086. The annual average salary for the call center representative is \$27,542. The annual salary of the three employees would add up to \$72,626. Approximately 50,000 copies of the introductory flyers will cost \$1,596 while bulk mail to the target population will add \$11,190. Printing and shipment of the services directory is another major area that requires greater amount of funds. The printing of the services directory will cost \$16,376 while shipping through bulk mail will cost an estimated \$18,500. The printing of biannual surveys will cost \$3,192 while the prepaid postage with bulk business reply mail service including annual permit is estimated at \$15,293. Annual rent for the call center at a centrally located area with paid electricity is estimated at \$9,540 while utilities at \$4,520. The estimated cost of office equipment is \$10,500. End of the year budget report will help determine the budget for the next year.

# VIII. Timeline of Proposed Activities

Timeline	Milestones
Month 1	Meeting with the City/County Joint Commission on Elderly Affairs
	Office setup, employee interviews/hiring
	Press release by City/County Joint Commission on Elderly Affairs
	Marketing design/development/flyer shipment to target population
	Resource compilation/ management
	Design/ production of resource directory
Month 2	Compilation/ printing of resource directory
	Shipping of resource directory
	Resource management
	Call center management/customer service
Month 3	Resource management
	Call center management/customer service
Month 4	Resource management
	Call center management/customer service
Month 5	Survey development
	Resource management
	Call center management/customer service
Month 6	Survey evaluation
	Resource management
	Call center management/customer service
Month 7	Survey shipment to target population
	Resource management
	Call center management/customer service
Month 8	Survey response evaluation
	Data analysis
	Resource management
	Call center management/customer service
Month 9	Data analysis
	Resource management
	Call center management/customer service
Month 10	Data analysis
	Resource management
	Call center management/customer service
Month 11	Data analysis
	Resource management
	Call center management/customer service

	Proposal for grant renewal
	Update of resource directory
Month12	Data analysis
	Resource management
	Call center management/customer service
	Overall outcome evaluation
	End of year report

# IX. Appendix

- 1. HaNDS for Older Adults, Health and Nutrition Directory Services
- 2. HaNDS for Older Adults, Introductory Flyer.pub

**Letter of Advocacy** 

Sen. Judith Zaffirini P.O. Box 12068 Capitol Station Austin, Texas 78711

Dear Senator Judith Zaffirini,

I am a dietetic intern and a graduate student at the coordinated program in Dietetics at UTHSCSA. I am also a member of the Academy of Nutrition and Dietetics (AND). The AND supports the healthful lifestyle and nutrition related behaviors of all Americans including older adults. In addition, it provides nutrition education resources and delivers strategies for overall health and wellbeing of older adults enhancing their functional independence. As mandated by Title 40 of Social Services and Assistance, (Rule 270.5), nutrition education is an important component of congregate and home delivered meal clients. Nutrition education may cover topics that directly address the physical and psychological issues that affect the overall health of older adults.

Though nutrition education is mandated by law, its evaluation is not required; leaving significant gaps in the programs' effectiveness. In addition, there is a strong probability that home bound, socially isolated older adults may not be receiving consistent nutrition education available through local agencies. Nutrition education is a cost effective method for disease management, prevention of lengthy hospital stays and other multiple health risks associated with older adults.

Qureshi, Lubna NTDT 5310

July 27, 2012

HaNDS for Older Adults, Health and Nutrition Directory Services

I urge you to communicate your support for nutrition education evaluation to the appropriate

offices. It may not exhibit an immediate outcome but its long term results on healthcare cannot

be neglected. As the debate continues on healthcare reform I will stay connected. In the

meantime please feel free to contact me with any queries you may have. I thank you in advance

for your kind consideration and support.

Sincerely,

Lubna A. Qureshi 96 main Circle

Universal City, TX 78148

**Executive Summary** 

In spite of federal and state operated programs for congregate meals and home delivered meals,

many older adults choose to cook and eat at home regularly or occasionally. Eating alone at

home may put older adults at nutritional risk. Simply not wanting to prepare food for one person

is indicative of a serious nutritional risk. Some research studies have found a strong correlation

between living alone and nutritional risk in older adults.

Enhanced nutrition education programs may be designed to address nutritional adequacy leading

to a healthier lifestyle, during older years. Moreover, additional efforts are needed to increase the

participation of non institutionalized older adults in the nutrition programs and services offered

by federal and private agencies.

In light of the factors associated with older adults and increased nutritional risk, a comprehensive

nutrition and activity information service program along with educational material for older

adults is proposed in this report. HaNDS for Older Adults is a partnership program with the city

of San Antonio to collaborate the information on city wide available resources and nutrition

services, in the form of a directory, for non-institutionalized older adults living alone. The

program aims to address the prevalence of poor nutritional status among non-institutionalized

older adults by providing comprehensive resources, information and knowledge of nutritional

and social activities offered in their respective communities along with a nutrition education

manual.

In order to effectively and efficiently fulfill the needs of the target population a business plan and

a grant proposal is presented. The business plan covers all the aspects of a proposed program that

includes the program's mission statement, goal and objectives, organization and management,

services, marketing strategies, financial management and sustainability, and evaluation. To

financially sustain the program a grant proposal is submitted that explains the need for required

funds. A letter of advocacy to local legislature is also included to reiterate the significance of

need for nutrition education services for older adults.

It is speculated that the HaNDS for Older Adults program will provide a comprehensive nutrition

and activity information service to help older adults find valuable resources, which may help

decrease the prevalence of social isolation and related nutritional consequences thus enhancing

overall health and well being.

**Lessons Learned** 

Nutritional Risks for Older Adults Living Alone is an outstanding learning project that

comprised of multiple aspects of community nutrition including health promotion and disease

prevention, program development, principals of nutrition education and counseling, research and

data analysis, nutritional epidemiology, marketing and promotion, funding resources and budget

design, grant proposal advocacy and evaluation. Following are the details relevant to these

components:

This project exposed me to the suffering and needs of older adults living alone. As I did my pilot

project at GRASP, I learned that older adults are a vulnerable population that mostly depends on

others in order for their basic health needs to be fulfilled. In spite of a variety of programs and

services, basic needs of older adults are not being met. Nutritional epidemiology, research and

data analysis revealed the available services and programs and the actual number of target population utilizing those services and programs. Further research revealed the gaps in the provision of services. My research also unveiled the discrepancies in attitudes, behavior and knowledge among older adults regarding the services provided. Directory development allowed me to utilize the principles of andrgogical learning and apply them to design the nutrition education component of the program. Program development allowed me to critically analyze the issue of nutritional risks for older adults living alone and design a program that will provide comprehensive resources. Marketing and promotion helped me to design introductory flyer for the target population so they become aware of available resources and grant proposal for the grants committee so they understand the legitimacy and urgency of the issue. Funding resources and budget design helped me to research and recognize multiple aspects involved in financing. From printing to shipping and facility renting to utilities I explored all the avenues including permits, rules, regulations involved in establishing a business.

Overall this project provided an excellent learning opportunity. It provided me inner satisfaction as I availed multiple opportunities to interact with the target population and know their issues first hand. I'm satisfied to design a project for older adults living alone that may positively affect their health and overall well being.

#### **References:**

- Administration on Aging, Department of Health & Human Services. (February 25, 2011). The Older Population. In A Profile of Older Americans: 2010. Retrieved December 1, 2011, from
  - http://www.aoa.gov/AoARoot/Aging\_Statistics/Profile/2010/3.aspx
- 2. Arnold Goldstein, Bonnie Damon. (September 1993).US Department of Commerce, Economic and Statistic Administration, Bureau of the Census, "We the American Elderly". Retrieved December 1, 2011, from <a href="http://www.census.gov/apsd/wepeople/we-9.pdf">http://www.census.gov/apsd/wepeople/we-9.pdf</a>
- 3. Boyle, Marie. A., Holben, David. H. (2010). *Community Nutrition in Action; An Entrepreneurial Approach*. (5 ed., pp. 318 & 450). Belmont, CA: Wadsworth, Cengage Learning
- 4. Eating Alone Unhealthy for the Elderly. (Oct. 15, 1999). WebMD Health News, Retrieved April 25, 2012. From

 $\underline{http://www.webmd.com/healthy-aging/news/19991015/eating-alone-unhealthy-forelderly-news}$ 

- 5. Kharicha K, Iliffe S, Harari D, Swift C, Gillmann G, Stuck AE. Health risk appraisal in older people 1: are older people living alone an "at-risk" group? *Br J Gen Pract*. 2007;57 (537):271–276).
- 6. Solveig T Tomstad, Ulrika Söderhamn, Geir Arild Espnes, and Olle Söderhamn. Living alone, receiving help, helplessness, and inactivity are strongly related to risk of undernutrition among older home-dwelling people. *Int J Gen Med.* 2012; 5: 231–240.
- 7. Gustafsson K, Sidenvall B. Food-related health perceptions and food habits among older women. *J Adv Nurs*. 2002; 39(2):164–173.
- 8. Older American Act and Aging Network. (November 15, 2011). Historical Evolution of Programs for Older Americans. In *Administration on Aging*. Retrieved July 12, 2012, from <a href="http://www.aoa.gov/AoARoot/AoA\_Programs/OAA/resources/History.aspx">http://www.aoa.gov/AoARoot/AoA\_Programs/OAA/resources/History.aspx</a>.
- 9. Older American Act. (December 27, 2010). Older Americans Act. In *Administration on Aging*. Retrieved July 12, 2012, from <a href="http://www.aoa.gov/AoARoot/AoA">http://www.aoa.gov/AoARoot/AoA</a> <a href="http://www.aoa.gov/AoARoot/AoA">Programs/OAA/index.aspx</a>.
- 10. Administration on Aging. (June 16, 2009). Elderly Nutrition Program. In Nutrition Information for You. Retrieved July 12, 2012, from <a href="http://www.nutrition.gov/food-assistance-programs/elderly-nutrition-program">http://www.nutrition.gov/food-assistance-programs/elderly-nutrition-program</a>.
- 11. Millen BE, Ohls JC, Ponza M, McCool AC. The Elderly Nutrition Program: An Effective National Framework for Preventive Nutrition Interventions. *J Am Diet Assoc*. 2002 Feb; 102(2): 234-240. Retrieved July 13, 2012, from http://www.adaevidencelibrary.com/worksheet.cfm?worksheet\_id=254569

- 12. Smith R, Mullins L, Mushel M, Roorda J, Colquitt R. An Examination of Demographic, Socio-cultural, and Health Differences between Congregate and Home Diners in a Senior Nutrition Program. Journal of Nutrition for the Elderly. 1994; 14(1): 1-21. Retrieved July 13, 2012, from http://www.adaevidencelibrary.com/worksheet.cfm?worksheet\_id=254599
- 13. Hope Andrade, Texas secretary of State, State rules and Open meetings, Texas Register viewer,(n.d). Retrieved July 14, 2012, from <a href="http://info.sos.state.tx.us/pls/pub/regviewetx\$regviewer.actionquery">http://info.sos.state.tx.us/pls/pub/regviewetx\$regviewer.actionquery</a>
- 14. Unofficial Compilation of the Older American Act of 1965(2006) Retrieved July 14, 2012, from http://www.aoa.gov/AoARoot/AoA\_Programs/OAA/oaa\_full.asp#\_Toc153957656
- 15. Administration on Aging. (July 16, 2009). Nutrition, Evaluations Report. In Administration on Aging. Retrieved November 10, 2011, from <a href="http://www.aoa.gov/AoARoot/Program\_Results/Nutrition\_Report/er\_vol1ch4b.asp">http://www.aoa.gov/AoARoot/Program\_Results/Nutrition\_Report/er\_vol1ch4b.asp</a> x.
- 16. Texas Department of Aging and Disability Services, Center for Policy and Innovation (April, 2009). "Aging Texas Well," Indicators Survey Overview Report 2009. Texas Department of Aging and Disability Services, (pages v, vi). Retrieved November 10, 2011, from
- http://www.dads.state.tx.us/news\_info/publications/studies/ATWindicators2009.pdf
- 17. US Census Bureau. (n.d). American Fact Finder. In US Census Bureau. Retrieved December 10, 2011, from <a href="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages
- 18. US Department of Commerce. (June 6, 2012). United States Census Bureau. In US Census Bureau. Retrieved July 15, 2012, from <a href="http://quickfacts.census.gov/qfd/states/48/4865000.html">http://quickfacts.census.gov/qfd/states/48/4865000.html</a>.
- 19. US Census Bureau. (n.d). American Fact Finder-Results. In US Census Bureau. Retrieved November 27, 2011. from <a href="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid="http://factfinder2.census.gov/faces/tableservices/jsf/pages/page
- 20. Carpenter, Celeste, RD, Clients Services Manager, Christian Senior Services, (personal conversation, October 20, 2011), e-mail correspondence November 3, 2011.
- 21. Higginson, Jay. Director, Greater Randolph Area Services Program, Inc. (Personal conversation, September 22, 2011). E-mail correspondence November 2, 2011.
- 22. Lee, Janice, Nutritionist, Comprehensive Nutrition Program, City of San Antonio, personal conversation, November 2, 2011
- 23. Alamo Area Council of Governments. (n.d). Alamo Service Connection (ASC) Aging & Disability Resource Center (ADRC). In Alamo Area Council of Governments. Retrieved July 15, 2012, from <a href="http://aacog.com/index.aspx?NID=107">http://aacog.com/index.aspx?NID=107</a>.

- 24. Academy of Nutrition and Dietetics. (n.d). Community Transformation Grants from the Academy. In The Academy Member Center. Retrieved July 15, 2012, from <a href="http://www.eatright.org/Members/content.aspx?id=6442453103&terms=Community+AND+Transformation+AND+Grants">http://www.eatright.org/Members/content.aspx?id=6442453103&terms=Community+AND+Transformation+AND+Grants</a>.
- 25. Healthy People 2020. (May 01, 2012). Older Adults-Healthy People. In Healthy People.gov. Retrieved July 15, 2012, from <a href="http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=3">http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicId=3</a>