Nevada System of Higher Education

Presentation to the Legislative Committee on Health Care's Task Force to Develop a State Plan to Address Alzheimer's Disease

August 22, 2012

9:00 am

EXHIBIT B – Alzheimer's
Document consists of 149 pages.
Entire document provided.
Meeting Date 08-22-12

As highlighted throughout the meetings of the Legislative Committee on Health Care's Task Force to Develop a State Plan to Address Alzheimer's Disease (Task Force), Nevada is facing a growing challenge in the treatment of and care for patients with Alzheimer's disease and dementia. This challenge extends to the caregivers and families of these patients. At the Nevada System of Higher Education (NSHE), we recognize this growing need and we appreciate the opportunity to share with the Task Force the role that the NSHE health sciences programs play in providing education, delivering care and conducting research to help support patients with Alzheimer's disease and dementia, and their caregivers and families.

Within the more than 230 health sciences degree and certificate programs offered throughout the eight NSHE institutions, our health sciences programs relating to mental health, social work, nursing, medicine and nutrition are perhaps the most focused on addressing Alzheimer's disease, dementia or other geriatric health issues. In an effort to provide the Task Force with a sample of NSHE's programs in these areas, we have asked the following NSHE representatives to participate in August 22, 2012 Task Force meeting.

- Renee L. Yackira
  Vice Chancellor for Administration and Operations
  Nevada System of Higher Education

- Jane E. Fisher, PhD
  Professor
  Department of Psychology
  University of Nevada, Reno

- Jerry Hodges, Professor and Program Director
  Mental Health Services
  Department of Human Behavior
  College of Southern Nevada

- Connie Mobley, PhD, RD
  Associate Dean of Research and Professor of Biomedical Sciences
  School of Dental Medicine
  University of Nevada Las Vegas

- Jason Holland, PhD
  Assistant Professor
  Department of Psychology
  University of Nevada, Las Vegas

- Jennifer Keene, PhD
  Associate Professor
  Department of Sociology
  University of Nevada, Las Vegas

- Susan G. Harris, PhD
  Coordinator, Gerontology Academic Program
  Sanford Center for Aging
  University of Nevada, Reno

- Timothy Baker, MD
  Associate Dean for Medical Education
  University of Nevada School of Medicine

In an effort to provide the Task Force with additional background information about the programs that will be discussed at the August 22nd meeting, and to share a sampling of NSHE health sciences programs' curriculum, service/care and research initiatives related to Alzheimer's disease and dementia, we have compiled the attached packet of background information.

We hope the Task Force finds the NSHE presentation and the attached background information helpful in its quest to develop a State Plan to address Alzheimer's disease. If there are any questions about the NSHE presentation, or about any of the information provided in this background material, please feel free to contact Marcia Turner, NSHE Vice Chancellor for Health Sciences, at 702-889-8426 or marcia_turner@nevada.edu.

Thank you for the opportunity to participate in this Task Force hearing, and we welcome the opportunity to continue to work with you in the future.

SAMPLING OF NEVADA SYSTEM OF HIGHER EDUCATION (NSHE)

EDUCATION/TRAINING, CARE AND RESEARCH PROGRAMS

RELATING TO ALZHEIMER'S DISEASE, DEMENTIA AND GENERAL GERIATRIC HEALTH

NSHE offers a wide range of curricula, training opportunities, service or care programs and research initiatives that address those affected by cognitive decline, both patient and caregiver. The following is a small sampling of the kinds of resources and expertise NSHE has to offer in these areas.

Sample of Curriculum (undergraduate and graduate)

College of Southern Nevada (CSN):

- **CSN Department of Human Behavior:**
  - While there are no current designated courses for Alzheimer's/dementia in the department, there are courses with components or modules on Alzheimer's/dementia embedded within courses. In addition, there are opportunities for students to gain practical knowledge of Alzheimer's/dementia as an option through fieldwork, practicum, or projects in our Mental Health Services Program, which focuses on direct paraprofessional services. The Mental Health Services Program brochure is attached (Attachment 1).
  - A summary of CSN courses with relevant components to Alzheimer's/dementia are as follows:
    - **<u>Mental Health Services</u>**
      - MHDD 107 Medication Fundamentals covers medications used with Alzheimer's/dementia patients.
      - MHDD 130 Teaching Life Skills includes teaching strategies to help minimize loss of life skills.
      - MHDD 153 Life Span Development includes material related to Alzheimer's/dementia related to aging.
      - MHDD 291 Fieldwork Experience could include an option for student experience with persons with Alzheimer's/dementia.
      - MHDD 295 Practicum could include placement in facility providing assessment or treatment of Alzheimer's/dementia.

- **Psychology and Sociology**
  - PSY 241 Introduction to Abnormal Psychology would include components related to Alzheimer's/dementia.
  - PSY 276 and SOC 276 Aging in Modern American Society would include material especially relating to Alzheimer's.

(Contact: Jerry Hodges, Program Director, Mental Health Services, Department of Human Behavior, College of Southern Nevada, jerry.hodges@csn.edu)

University of Nevada, Las Vegas (UNLV):

- **UNLV School of Dental Medicine (SDM):**
  - There are two specific courses offered within the UNLV SDM curriculum that address Alzheimer's and dementia and they are listed below. One is a didactic course and the other includes an external rotation. These issues are addressed by students and faculty within the patient clinic population.
    - The etiology; pathophysiology; clinical and laboratory manifestations; research findings; and future developments in the treatment and prevention of the degenerative neurological diseases (Alzheimer's disease, Parkinsonism, and Huntington disease) are discussed within the lecture portion of DEN7201 Oral and Systemic Pathology in the Spring semester.
    - This topic is also covered in two other courses: DEN7252 Community Outreach: Geriatric Population This course includes an external rotation that occurs at senior citizen and assisted living centers in Clark County. Students provide oral health education and prevention programs to the residents in their assigned facility with faculty supervision.

(Contact: Connie Mobley, Ph.D., R.D., Associate Dean of Research, Professor – Biomedical Sciences, School of Dental Medicine, connie.mobley@unlv.edu)

- **College of Liberal Arts:**
  - Interdisciplinary Minor in Gerontology
    - Drs. Jason Holland and Sociology's Jennifer Keene will present UNLV's program (Attachment 2). Dr. Abbie Kirkendall is also a member of this Minor in Gerontology task force, and she is very familiar with Social Work's relevant internship and outreach programs. In addition, a new hire in Sociology, Takashi (Taki) Yamashita's specialty is in gerontology.

      (Contact: Jason Holland, Assistant Professor of Psychology

(jmhollnd@gmail.com), Jennifer Keene, Associate Professor of Sociology (jennifer.reid.keene@gmail.com)

University of Nevada, Reno (UNR)

- **Sanford Center for Aging offers the following programs:**

    - Undergraduate Minor in Gerontology (Attachments 3 and 4)
    - Academic Certificate in Gerontology (Program of Merit as designated by the Association of Gerontology in Higher Education) (Attachments 3 and 4)
    - Caregiver Essentials Certificate (Attachment 5)
    - Chronic Disease Self-Management Program (Attachment 6)

(Contact: Susan G. Harris, PhD**,** Coordinator, Gerontology Academic Program, T-Trainer, CDSMP and DSMP, Sanford Center for Aging, sharris@unr.edu)

- **Orvis School of Nursing:**

    - Sample of dementia/Alzheimer's related curriculum in undergraduate and graduate nursing programs:
        - Nursing: BSN program:
            - <u>NURS 439: Care of the Chronically Ill: Theory</u>
                - Content areas: Social isolation, quality of life, family care giving, self-image, long-term, palliative and rehabilitative care, stigma, concept of uncertainty
                - Content presented as a case study for small group interactive learning to develop for example, caregiver self-care teaching plans.
            - <u>NURS 433: Care of Community and Mental Health Populations: Theory</u>

              Content on dementia and Alzheimer's disease using the following objectives from the current textbook in use in the class:
                - Describe the difference between delirium and dementia.
                - Describe the needs of a patient with delirium.
                - Describe appropriate nursing interventions for a patient with delirium.
                - Describe the seven stages of Alzheimer's disease as defined by the Alzheimer's Association.
                - Describe aspects of caring for a patient with AD: communication, health maintenance, and safe environment.

- Name five types of community services and five types of in-home services that a family might utilize to care for their member with AD.

- NURS 434: Care of Community and Mental Health Populations: Practice
  - The students interact with the individuals with dementia and Alzheimer's disease in varied settings: Senior Bridges inpatient and outpatient services, Hospice, Home Care Programs, VA mental health inpatient and outpatient services, Northern Nevada HOPES, West Hills Hospital, Record Street Homeless Community.
- NURS 750: Advanced Health Assessment (All of the MSN students take this course)
  - Content includes a neuro exam, including mental status
- NURS 758: Advanced Primary Care IV (For Family Nurse Practitioner (FNPs) only)
  - Content includes dementia (and Alzheimer's disease as one type of dementia) as part of the neuro module.
    - Covers signs and symptoms, diagnostics that would be appropriate (including those from a primary care perspective), and interventions (including behavioral and some pharm). Dementia (including AD) is something that typically involves a neuro consult and/or referral. As such, we focus primarily on the primary care provider's role in it. Of course, recognition is the first critical step in dementia/AD (and often comes from family and PCP).

(Contact Patsy L. Ruchala, DNSc, RN, Director and Professor, Orvis School of Nursing, University of Nevada, pruchala@unr.edu)

- **University of Nevada School of Medicine (UNSOM):**
  - Dementia & Alzheimer's Disease Curricula at UNSOM --Preclinical Years (first and second years of medical school)
    - The exposure of students at the University of Nevada School of Medicine to dementia and Alzheimer's starts early and begins with a discussion in the Human Behavior course regarding the cognitive decline that occurs as part of the normal aging process. This is expanded later in what is currently the Neuroscience course, during a two-hour didactic session on dementia, with one hour specifically devoted to Alzheimer's. This occurs in a format of interactive case discussions, and has, in the past, included a session with a real patient with Alzheimer's disease and their caregivers and families.

- As part of our new curriculum, a planned "case of the week" will be devoted to dementia and Alzheimer's disease. Additionally, first-year students learn to assess patients presenting with cognitive decline in the clinical skills courses, using cognitive evaluation tools such as the Mini Mental Status Exam (MMSE) and Mini-Cog test. This portion of the curriculum is tied into the overall geriatric assessment, including evaluation of elder abuse (which is covered again just prior to entering the clinical clerkships), as well as death and dying and related ethical issues.
- During their second year, students begin to learn the pathological basis of dementia and Alzheimer's in the Pathology course, in addition to continued didactics on cognitive disorders during the Psychiatric Medicine course.
- Exposure to patients with cognitive decline, dementia and Alzheimer's occurs throughout the preclinical years during required outpatient primary care experiences with community physicians in Reno and the surrounding areas.

o **Clinical Years (third and fourth years of medical school)**

- As students begin their clinical years, they are immediately immersed in direct patient care experiences. In the Family Medicine, Internal Medicine, Psychiatry, Surgery and OB/GYN core clerkships, students are exposed to a geriatric population at risk for developing dementia. During these clerkships, students work side by side with residents and attending physicians to learn the techniques and procedures for evaluating and diagnosing dementia and Alzheimer's. This direct patient care experience is supplemented in the Family Medicine, Internal Medicine, and Psychiatry clerkships with numerous didactic sessions dedicated to the evaluation, diagnosis and treatment of patients with dementia.
- Students have a more extensive experience caring for and learning about patients with dementia and Alzheimer's during a fourth year elective in Neurology. Students also have opportunities to collaborate with UNSOM neurologists as well as adjunct faculty at the Cleveland Clinic Lou Ruvo Center for Brain Health on clinical research in dementia and other neurologic disorders.

o **Graduate Medical Education (residency – specialty training after medical school)**

- All residency training programs at the University of Nevada School of Medicine that involve the care of geriatric patients include exposure to patients with dementia and Alzheimer's. The care of these patients occurs in a variety of settings, including inpatient, outpatient, and, in some instances, home visits. The focus of care in these settings is not only on the affected patient, but also on his or her family members and caregivers.

- The University of Nevada School of Medicine has an ongoing relationship in Las Vegas with The Cleveland Clinic Lou Ruvo Center for Brain Health, which "provides diagnosis and ongoing treatment for patients with cognitive disorders and support services for family members who care for them."[1] This relationship exists currently in the form of rotations at the Ruvo Center for resident physicians in Family Medicine (LV) and Internal Medicine (LV) as part of their required geriatrics experiences. There is also a lecture series on dementia and Alzheimer's in the Psychiatry (LV) residency program.
- Didactic sessions dedicated to the evaluation, diagnosis and treatment of patients with dementia continue throughout many of the residency training programs at the University of Nevada School of Medicine.

- **Other Specific Graduate Medical Education dementia education:**
  - Geriatrics Fellowship (Reno)
    - During the yearlong geriatrics fellowship, advanced trainees (those who have finished their residency training) gain significant exposure and expertise in the care of patients with dementia.
    - The Geriatrics Division takes an interdisciplinary approach with physicians, mental and behavioral health providers, nutritionists, dentists, social workers and nurses.
    - Fellows in geriatric medicine see patients in the outpatient and inpatient settings as well as in skilled nursing and rehab facilities and during home visits.
  - Hospice and Palliative Medicine Fellowship
    - Fellows learn to address end of life issues in patients with dementia, while providing further teaching to residents and students.
  - Internal Medicine (LV)
    - In collaboration with University Medical Center in Las Vegas, the University of Nevada School of Medicine maintains an active inpatient neurology consultation service, which addresses the care of patients with dementia in an acute hospital setting. Residents in Internal Medicine rotate on this service, seeing a variety of neurologic disorders, including dementia and Alzheimer's.
  - Family Medicine (LV)
    - Residents participate in didactic sessions in their outpatient clinic on the diagnosis—including cognitive testing and imaging—and treatment of patients with dementia. This education specifically focuses on the impact of dementia and Alzheimer's on the family and caregivers at various stages of the disease.
    - Dr. Alvin Lin, an Assistant Professor in the department, is involved in the Clark County Alzheimer's Action Network. Additionally, Dr.

Lin wrote and designed the recent American Academy of Family Physicians (AAFP) CME on Alzheimer's disease and has presented on the topic at various state meetings. Residents spend time with Dr. Lin and accompany him to assisted living facilities and home visits.

- Residents rotate with Drs. Bernick and Wint at The Cleveland Clinic Lou Ruvo Center for Brain Health where they see dementia and Alzheimer's patients.
- Residents rotate with a community physician, Dr. Muyot, during their geriatrics rotation, during which they see Alzheimer's patients.

- Family Medicine (Reno)
  - Residents have a dedicated month-long rotation in geriatric medicine, which places them in direct patient care roles with Alzheimer's patients. During this experience, they participate in dedicated geriatric visits at extended care facilities in Reno.
- Emergency Medicine (LV)
  - Residents have required readings on dementia, delirium, and the elder patient, augmented by interactive, faculty-led discussions.

[1]http://my.clevelandclinic.org/brain_health/default.aspx

(Contact: Tim Baker, MD, Associate Dean for Medical Education, tkbaker@medicine.nevada.edu)

Sample of Services/Delivery of Care Programs

University of Nevada, Las Vegas

- **Marriage and Family Therapy (MFT):**
  - The Marriage and Family Therapy program is the only accredited MFT program in the state. They provide numerous mental health services to the campus and surrounding community, including services for coping, caregivers, etc. They provided almost 7,000 hours of therapy in 2011. Each therapist-in-training must provide at least 500 hours of therapy through the on-campus clinic and a community-based internship. With national private practice fees around $80 per hour, each new class of ours, which averages 12 students, contributes approximately half a million dollars of therapy to the community during the course of their program.

(Contact: Dr. Katherine Hertlein, Program Director and Graduate Coordinator, Katherine.Hertlein@unlv.edu; Dr. Colleen Peterson, Clinic Director, Colleen.Peterson@unlv.edu)

- **UNLV's "The PRACTICE"**
    - The Partnership for Research, Assessment, Counseling. Therapy, and Innovative Clinical Education clinic, known as "The PRACTICE," is a new clinic, jointly operated by the UNLV College of Education's Department of Educational Psychology and UNLV College of Liberal Arts Department of Psychology. (Attachment 7)

University of Nevada, Reno

- **Senior Outreach Services (SOS) Program:**
    - The SOS Program is offered via Educational Talks (Attachment 8). These talks are typically attended by 80 – 100 SOS volunteers, SCA faculty/staff, and a diverse group of community partners.

- **Sanford Center for Aging:**
    - Medication Therapy Management (MTM) Program. While the MTM program is not a dementia-specific program, however, we have served many seniors with dementia either in partnership with the Nevada Caregiver Support Center, the Alzheimer's Association, or by working directly with family caregivers, guardians, and those with power of attorney. (Attachment 9)
    - Special Training Modules: Two training modules were produced several years ago and updated recently for the Nevada Aging and Disability Services Division (ADSD) for their Nevada ADRC program grantees and staff. The modules were converted from a face-to-face learning environment to an online eLearning Solution (including voice-over). They are located at the state's Nevada ADRC portal in the private area of the website. The PPTs and curriculum are attached for: Memory and Dementia; Managing Difficult Behaviors Associated with ADLs in Patients with Dementia. (Attachment 10)

  (Contact: Teresa M. Sacks, MPH, Health Research Analyst, Sanford Center for Aging, sackst@unr.edu)

Sample of Research Initiatives

University of Nevada, Reno

- **Psychology Department:**
    - Dr. Jane Fisher's research program is focused on behavioral health and aging with an emphasis on the behavioral health of elderly persons with cognitive disorders and family and professional caregivers. She founded and directs the Nevada Caregiver Support Center on the UNR campus. The center is devoted to research, education, and outreach in evidence based behavioral

healthcare for persons with dementia and their caregivers. In addition to providing behavioral health services to elderly persons with dementia and their family caregivers, training in evidence based geriatric behavioral healthcare to professionals within Nevada and across the U.S. and Canada. In 2008 the center was described as "a national model of progressive dementia care" by the U.S. Administration on Aging. The center is staffed by doctoral students in clinical psychology. It also serves as a field site for undergraduate students enrolled in geropsychology field experience courses. (Attachment 11)

(Contact: Jane E. Fisher, Professor, Department of Psychology, University of Nevada, Reno, jefisher6@yahoo.com, 775-682-8705)

University of Nevada, Las Vegas

- **College of Education:**
  - Dr. Glenn West focus' in the area of dementia and relates to educating undergraduates in the field of Human Services. Having had some background in anatomy/physiology, he has some understanding of the pathophysiology of the disease and how that relates to the behavioral manifestations in sufferers. Although he seeks to effectively train those who will work with clients with dementia, his greater emphasis is on self-help and support group strategies to prevent caregiver burnout, desensitization, and even elder abuse.

(Contact: Glenn R. West, Ph.D., HS-BCP, Dept of Educational and Clinical Studies, Human Services Program, College of Education, westg4@unlv.nevada.edu)

- **UNLV Cannon Survey Center:**
  - Dr. Pamela Gallion conducts research surveys and a statewide study of seniors in Nevada as an example of the one of the reports that a UNLV research center has produced. Dr. Gallion's personal interests focus on health and older adults. An executive summary and her study are attached (Attachment 12).

(Contact: Pamela S. Gallion, M. Ed., MBA, Director of the Cannon Survey Center, pam.gallion@unlv.edu)

Attachment #1

Yes, I would like information on
Mental Health Services:

☐ **Courses** ☐ **Other:**

☐ **Degrees**

☐ **Careers**

Name

Address

City Zip

Email:

Want Information Right Away?
Visit Our Website at:
http://www.csn.edu/pages/994.asp
Or
Email: human.behavior@csn.edu
Or
Mail or Fax this form to:

Department of Human Behavior
College of Southern Nevada
6375 W. Charleston Blvd. W246K
Las Vegas, NV 89146
Phone 702-651-5700
Fax 702-651-5843

CSN
COLLEGE OF SOUTHERN NEVADA

Mental Health Services Program offers students:

Career Education to Prepare for Jobs in Direct Human Services, such as:

- Mental Health Technician
- Developmental Support Technician
- Residential Services Specialist
- Direct Support Professional
- Case Services Coordinator
- Job Coach/Employment Specialist
- Day Program Specialist
- Human Services Supervisor/Manager
- Other related job titles

Degree/Course Credits for Transfer:

- UNLV
- UNR
- Other colleges

Nevada Certification:

- Mental Health Technician
- Developmental Support Technician

Continuing Education Credits

- Mental Health Technicians
- Developmental Support Technicians
- Social Workers
- Nurses
- Teachers

MENTAL HEALTH SERVICES

Challenging Careers

Program and Degree Outline

CSN
COLLEGE OF SOUTHERN NEVADA

Mental Health Services Courses

Number	Course Title	Credits
MHDD 101	Role of the Technician	1
MHDD 102	Medical Component	1
MHDD 103	Psychopathology and Developmental Disabilities	1
MHDD 105	Conflict Prevention and Response Training	2
MHDD 106	Teaching and Active Treatment	1
MHDD 107	Medication Fundamentals	2
MHDD 109	Introduction to Therapeutic Interventions	2
MHDD 110	Introduction to Disability Services	3
MHDD 126	Understanding Developmental Disabilities	2
MHDD 127	Positive Behavior Supports	2
MHDD 130	Teaching Life Skills	3
MHDD 150	Issues in Substance Abuse	1
MHDD 152	Allied Therapies	1
MHDD 153	Life Span Development	1
MHDD 154	Advanced Therapeutic Interventions	2
MHDD 160	Understanding Mental Illness	2
MHDD 291B	Fieldwork Experience	3
MHDD 295	Practicum	3
MHDD 299	Capstone Project	3

Degrees and Certificates

Associate of Applied Science
(60 credits required)

A vocational degree for career preparation as a paraprofessional for employment serving persons with intellectual and/or mental disabilities.

Degree Options:
- ♦Mental Health/Developmental Services
- ♦Supervisory Services

Certificate of Achievement
(30 credits required)

Knowledge and applied skills to prepare for a career in direct human services with persons with intellectual and/or mental disabilities.

Certificate of Completion
(15 credits required)

Entry-level preparation for direct human services employment with persons with intellectual and/or mental disabilities.

Concentration Areas:
- ♦Mental Health Services Technician
- ♦Developmental Services Technician

Associate of Arts
Psychology Emphasis, Mental Health Option
(61 credits required)

A fully transferable degree with applied mental health services course content.

Personal Qualities Needed in Mental Health Services

- Caring Attitude
- Empathy
- Acceptance of Others
- Patience
- Communication Skills
- Objectivity
- Teamwork

Attachment #2

UNLV

Interdisciplinary Degree Programs

Gerontology Minor Requirements

Required Core Courses (6 Credits)

Course	Credits
Select one: • SWK 104 **Perspectives in Aging • HED 165 **Personal Health Across Lifespan	3
Select one: • ANTH 465/665 **Human Growth and Aging • CED 408/608 **Counseling the Older Adult • KIN 462 Adult Development in Aging • NURS 486/686 Gerontology • PSY 442 **Psychology of Aging • SOC 410/610 Sociology of Aging	3

**Any course from the Required Core Course list that is NOT being used to fulfill a core requirement may be used as an elective. No single class may be used to fill both a Required Core Course and an elective.*
*** Online class*

Electives (9 credits)

Course	Credits
Select any three (3) of the following courses: • ANTH 462/662 Human Osteology • *ANTH 465/665 **Human Growth and Aging • CED 310 Lifespan Relationship • CED 408/608 **Counseling the Older Adult • HCA 480/680 Organization/Management of Long Term Care • *HED 165 **Personal Health Across Lifespan • KIN 316 Motor Development Across Lifespan • KIN 461 Physical Activity in Aging • *KIN 462 Adult Development in Aging • NURS 299 Nutrition/Development Across the Lifespan • NURS 319 Nursing Care of Older Populations • *NURS 486/686 Gerontology • PSY 496 Advanced Independent Study • *PSY 442 **Psychology of Aging • SOC 276 Aging in Modern American Society • *SOC 410/610 Sociology of Aging • SOC 484/684 Sociology of Death and Dying • *SW 104 **Perspectives in Aging • SW 461/661 Contemporary Issues in Social Welfare: Death/Dying • SW 499 Supervised Independent Study	9

**May only be used as an elective if the class is not satisfying a Core Course Requirement.*

** *Online class*

Culminating Experience (Practicum, Internship, Research) (3 credits)

Course	**Credits**
Select one: • HCA 400 Practicum: Health Care Administration • IDS 495 Interdisciplinary Studies Capstone • NURS 319 Nursing Care of Older Populations • SOC 390 Internship in Sociology • SW 400 Interdisciplinary Practicum	3

**Must be taken in the student's Senior year.*

Attachment #3

Gerontology Certificate Program

Total Credits Required: 24

Required Courses – 18 credits

	Course Number	Course Title	Credits
OR	GERO 337/ CHS 337	Aging: An Interdisc. Approach	3
	HDFS 431E	Adult Develop. & Aging	3
OR	HDFS 400	Social Aspects of Aging	3
	HDFS 400	Family Gerontology	3
	GERO 442/PSY 442	Psych. Aspects of Aging	3
	GERO 430/NURS 430	Aging & Health	3
OR	HDFS 440	Perspectives on Aging	3
	CHS 439	Cross Cultural Perspectives on Aging	3
	SW 498	Ethics & Aging	3
OR	GERO 499	Gerontology Field Experience	3
	PSY 447	Geropsychology Field Experience	3
	OTHER	Field Experience (approved course)	3

Elective Courses – 6 credits (pick any 2)

CHS 445	Human Values & Prof. Ethics	3
CPD 140	Intro.	
GERO 201	Topics and Careers in Aging	3
GERO/SW 361	Healthcare of Diverse Aging Populations	3
GERO/CASAT/SW 4/663	Aging and Addiction	3
HDFS 437	Death & Dying: Family & Lifespan Perspectives	3
HIST 404	Final Resting Places: Death & Dying in American Culture	3
PSY/SOC 276	Aging in Modern American Society	
PSY 448	Geropsych Independent Study	3
SPA 421	Communication Problems of the Aged	3
SW 461	Social Services in Death/Dying	3
SW 463	Social Work & Health Care: Underserved Populations	3

Other courses accepted per approval of the Coordinator, Gerontology Academic Program

Gerontology Minor

Required Courses – 18 credits

	Course Number	Course Title	Credits
OR	GERO 201	Intro to Topics & Careers in Aging	3
	PSY/SOC 276 (TMCC)	Aging in Modern American Society	3
OR	GERO/ CHS 337	Aging: An Interdisc. Approach	3
	HDFS 431E	Adult Develop. & Aging	3
OR	HDFS 400	Social Aspects of Aging	3
	HDFS 400	Family Gerontology	3
	GERO/PSY 442	Psych. Aspects of Aging	3
	GERO/NURS 430	Aging & Health	3
OR	HDFS 440	Perspectives on Aging	3
	HE 439	Cross Cultural Perspectives on Aging	3
	SPA 421	Communication Problems of the Aged	3

Other courses accepted per approval of the Coordinator, Gerontology Academic Program

For more information about the academic programs, contact the GAP Coordinator: Dr. Susan Harris, 775-784-7557, sharris@unr.edu

Check out the Associated Students of Gerontology Club

Contact the club president, Lea Cartwright (leacartwright@gmail.com) for more information

Attachment #4

Sanford Center for Aging
Gerontology Academic Program

GERONTOLOGY COURSES

Descriptions

CPD 140 - Introduction to Family and Respite Caregiving (3 credits): Skills for caregivers to assist frail elderly in the home to foster independent living. It covers normal aging, psychosocial concerns, legal issues, communications techniques, problem identification/resolution, coping skills, home environment, and basic care techniques. TMCC.

GERO 201 - Topics and Careers in Aging (3 credits): Introduction to skills, competencies, and knowledge base necessary for pursuing a career in aging.

CHS 337 - Aging: An Interdisciplinary Approach (3 credits): Theories, methods, policies, and programs pertinent to the aged. Includes exploration of an individual's ability to age successfully.

SW 361 - Healthcare of Diverse Aging Populations (3 credits): An overview of aging and diversity and their relationship to healthcare service and delivery.

NURS 430/630 - Aging and Health (3 credits): Increases awareness of health issues in aging. Issues include definitions of health, high-risk elderly, and future aging. (Diversity course)

GERO 437/637 or CAS 437/637 or SW 437/637 - Special Topics in Addiction: Substance Abuse & Aging (3 credits): A multidisciplinary overview of substance related and behavioral addictions focused on the aging population.

CHS 439/639 - Cross Cultural Perspectives on Aging (3 credits): Explores aging and the aged in different cultural contents throughout the world and over time, using medical anthropological discourse.

PSY 442/642 - Psychology of Aging (3 credits): Introduction to theories and research on the aging process. Practical applications.

GERO 499 - Gerontology Field Experience (3credits): Supervised experience in an agency setting serving older adults to enable practical application of gerontological theory.

GERO 610 - Geriatric Interdisciplinary Summer Internship (3 credits): Introduces students in health, gerontology, and other majors to the theoretical and applied dynamics of interdisciplinary teamwork in the care of elderly patients. Prerequisites: graduate or graduate special standing.

GERO 400/600 - Special Problems: Family Gerontology (3 credits): Provides a theoretical and empirical examination of social development in the later adult years, particularly as it impacts family and other interpersonal relationships.

GERO 400/600 - Special Problems: Social Aspects of Aging (3 credits): Focuses on the theoretical and empirical perspectives of later life social development including age-related intra-individual developments as well as how these perspectives inform us on the linkages between the individual and larger sociopolitical structures.

GERO 431e/631e - Advanced Studies in Adult Development and Aging (3 credits): Theory, research, and issues in adult development and aging. Prerequisite: HDFS 201 or equivalent. Note: Prerequisite may be waived for non-HDFS majors

HDFS 437/637 - Death and Dying: Family and Lifespan Perspectives (3 credits): Overview of death and dying, coping, and adaptation as an individual and family experience from prenatal development through adulthood. Emphasis on both personal and professional applications. Prerequisite: HDFS 201, HDFS 202, PSY 101, SOC 101, HCE 301, HE 474, or PSY 442. Note: Prerequisite may be waived if non-HDFS major per instructor's permission

GERO 440/640 - Perspectives on Aging (3 credits): Patterns and dynamics of later life focusing on the family and total ecosystem: natural, socio-cultural, economic, political, and human-built environments. Prerequisite: HDFS 201, PSY 442, or SW 311.

CHS 445/645 - Human Values and Professional Ethics (3 credits): Focus on value systems and major ethical issues in social and health care such as confidentiality, truth-telling, and codes of professional behavior. (General capstone course) Prerequisites: CH 201, ENG 102, and junior or senior standing

HIST 404 - Social History of the United States: Death & Dying (3 credits): Topical examination of major social currents in American life from the colonial period to the 20th century.

PSY 276 or SOC 276 - Aging in Modern American Society (3 credits): The psychological and sociological development and the changes attendant to the process of aging in society; theory and research in the field, implications for social policy and perspectives on death and dying. Satisfies TMCC and UNR Diversity core curriculum.

PSY 447/647 - Geropsychology Field Experience (3 credits): Supervised experience in community agencies with a focus on psychological approaches to working with older people. Maximum of 6 credits. Prerequisite: PSY 442/642.

PSY 448/648 - Geropsychology Independent Study (3 credits): Directed research projects. Maximum of 6 credits. Prerequisite: PSY 442/642.

SPA 421 - Communication Problems of the Aged (3 credits): Speech, language, and hearing problems of the aged; normal aging and acquired disorders.

SW 461 - Social Services in Death, Dying, and Bereavement (3 credits): Examines attitudes toward death and associated grief processes. (General capstone and diversity course) Prerequisites: ENG 102, CH 201, and junior or senior standing.

SW 463 – Social Work & Health Care: Underserved Populations (3 credits): Analysis of health care delivery models; especially knowledge of influence of race, culture, gender, and sexual orientation on health care. (Diversity course.) Prerequisite SW 321.

SW 498/698- Ethics & Aging (3 credits): Examine and analyze aging issues in a modern and changing society; focuses on topics in gerontology under the rubric of ethical reasoning.

Sanford Center for Aging
University of Nevada, Reno

Gerontology Academic Program
Division of Health Sciences
Center for Molecular Medicine Room 125
gero@unr.edu (775) 784-7557

Attachment #5

NEW FORMAT! Caregiving Essentials Certificate

Resources, skills and strategies for professional and family caregivers

Developed by the University of Nevada, Reno Sanford Center for Aging in partnership with Extended Studies, this interactive 36-hour certificate program is designed to help both professional and family caregivers navigate the resources available in Nevada for older adults and for people with disabilities, teach skills necessary for effective caregiving, and provide information to help caregivers manage stress and balance commitments.

The demand for qualified professional caregivers and for family caregivers is increasing rapidly in the United States. According to the U.S. Department of Labor's Bureau of Labor Statistics, job opportunities for personal and home care aides is expected to grow by nearly 50 percent between 2008 and 2018, much faster than the average for all occupations.

The Caregiving Essentials Certificate is endorsed by the State of Nevada Aging and Disability Services Division (ADSD) and meets the five-hour training requirements for Nevada Aging and Disability Resource Center (ADRC) sites.

When:	Sept. 26-Dec. 11, 2012; 3:30-6:30 p.m. (Wednesdays, Sept. 26; Oct. 3, 10, 17 and 24; Tuesdays, Oct. 30; Nov. 6, 13, 20, 27; Dec. 4 and 11)
Where:	University of Nevada, Reno, Continuing Education Building, 1041 N. Virginia St., Reno
Instrs.:	Facilitated by Susan G. Harris, Ph.D., University of Nevada, Reno Sanford Center for Aging, and taught in collaboration with other professionals in the field
Fees:	**Early-bird/regular fee:** $995 through Sept. 7, 2012; $1,295 after Sept. 7 **Group discount fee:** $850 per person if registering two or more participants from the same organization *Fee includes tuition, all course materials, parking and refreshments each day. An additional $20 fee will be assessed for optional Continuing Education Units (CEUs).**
Sched. #:	2128CEC101 (For registration options, see page 1.)

Certificate Requirements

To earn the Caregiving Essentials Certificate, participants must successfully complete the 36 hours of interactive course work. Full attendance is mandatory.

Program Topics

- Overview of caregiving responsibilities, dynamics and obstacles
- Stereotypes and myths about aging and disabilities
- Caregiver and care recipient communication and interviewing
- Crisis management, grief and loss
- Memory and dementia and managing difficult behaviors
- Navigating resources: Nevada Aging and Disability Resource Center (ADRC), Medicare and Medicaid

*Continuing Education Units

The Caregiving Essentials Certificate is approved or pending approval for Continuing Education Units (CEUs) from the following agencies:

- Nevada Board of Examiners for Long-Term Care Administrators
- Nevada Board of Examiners for Marriage and Family Therapists
- Nevada Board of Examiners for Social Workers
- Nevada State Board of Nursing

Caregiving at All Levels

There is a growing need for both qualified professional caregivers and for family caregivers — two key groups requiring increasing education to meet the psychological and day-to-day demands of caring for older adults and people with disabilities. While caregiving for many is a chosen, paid profession, vast numbers of informal caregivers assist adults in their homes. According to the Rosalynn Carter Institute for Caregiving, more than 50 million caregivers in the United States provide $350 billion worth of unpaid services.

The University's new Caregiving Essentials Certificate offers invaluable knowledge, skills and resources for professional and family caregivers, for those wishing to join a caregiving profession or preparing to provide care for a family member, as well as for those in related helping professions who wish to augment their knowledge in this segment of healthcare.

Benefits

- In-depth instruction prepares participants to join one of the nation's fastest-growing fields and offers professional development for those working in caregiving and in the helping professions.
- Valuable 36-hour university certificate examines a wide range of issues critical to providing effective care for older adults and people with disabilities.
- Certificate completion demonstrates knowledge and achievement in the field.
- Program hours may apply toward the continuing education requirements for professional recertification from select Nevada organizations and agencies for caregivers and others working in healthcare and mental health professions.
- Upon completion of the program, participants will be offered additional training related to personal care aides. Please visit the website for details.

About the Facilitator and the Sanford Center for Aging

Taught by professionals in the field, the Caregiving Essentials Certificate program is facilitated by **Susan G. Harris, Ph.D.,** University of Nevada, Reno's Sanford Center for Aging. The center is an innovative statewide organization dedicated to improving the quality of life for older adults in Nevada through education, translational research and community outreach. For more information about the University's Sanford Center, visit www.unr.edu/sanford.

FREE! Extended Studies Open House

When:	Wednesday, Aug. 22, 2012, 5:30-7:30 p.m.
Where:	University of Nevada, Reno, Redfield Campus, 18600 Wedge Parkway, Reno

Attend our FREE open house to find out more about Extended Studies programs, receive a special discount for registering on site for select courses — *and enter to win the new iPad and more!*

For more information, email: shera@unr.edu

Attachment #6

Sanford Center for Aging
University of Nevada, Reno

SELF-MANAGEMENT PROGRAMS

Chronic Disease Self-Management
Diabetes Self-Management

© Stanford University

These six-week workshops are designed to help individuals or their caregivers live a healthy life and manage their chronic health conditions such as arthritis, asthma, early stage dementia, diabetes, heart disease, and others or diabetes specifically.

Topics include:

- Exercising for strength, flexibility, and endurance
- Nutrition education
- Communicating with friends, family and health professionals
- Coping with frustration, pain and fatigue
- Developing a positive attitude
- Medication Management

Contact Tamara Steinmann for more information at

Stanford University-trained facilitators:

Global T-Trainers

Fidelity Evaluators:

Susan G. Harris

LuAnne Steininger

Leader

Angela Broadus

This program is made possible through the Sanford Center for Aging, Division of Health Sciences, University of Nevada, Reno with funding from the Nevada Aging and Disability Services Division and the Department of Health and Human Services.

Attachment #7

The PRACTICE:

Partnership for Research, Assessment, Counseling, Therapy and Innovative Clinical Education

A UNLV Community Mental Health Clinic

The PRACTICE:

Box 453033
4505 S. Maryland Parkway
Las Vegas NV 89154-3033

Telephone: (702) 895-1532
Fax: 702-895-1530
Website: http://education.unlv.edu/practice/

Directions and how to find us:

The PRACTICE Clinic is located on the University of Nevada, Las Vegas main campus in the Carlson Education Building (CEB), Room 226.

Travel to the Clinic and Finding Parking:

From Hwy 15, exit Tropicana Blvd and proceed east to Maryland Parkway. Turn left. Proceed north.

From Hwy 95, exit Tropicana Blvd and proceed west to Maryland Parkway. Turn right. Proceed north.

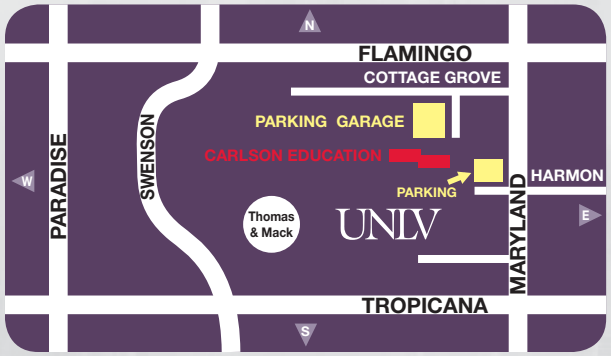
There are 2 metered parking options:

1) Turn west onto Harmon and take an immediate right.
2) Turn west onto Cottage Grove Avenue and enter the Cottage Grove Parking Garage, where metered parking is available on the first level.

Regardless of where you park, remember to bring change.

For more information regarding maps & parking go to http://unlv.edu/maps

Public Transportation is also an option with RTC bus stops along Maryland Parkway between Flamingo and Tropicana.



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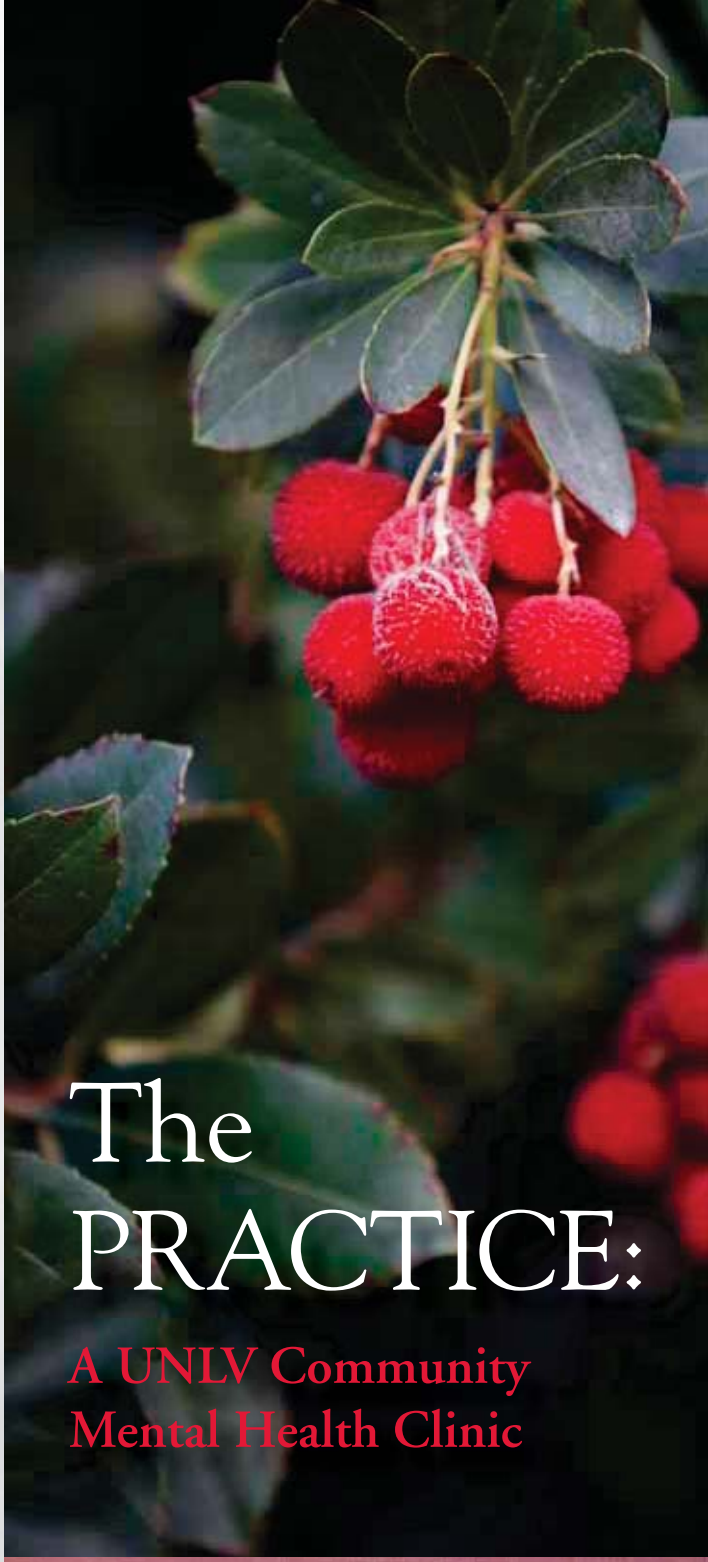

The PRACTICE:

A UNLV Community Mental Health Clinic

The PRACTICE is a dynamic community mental health clinic sponsored by the University's Colleges of Education and Liberal Arts. UNLV faculty experts in clinical and school psychology and counseling train and supervise advanced graduate students in high quality mental and behavioral health care. Faculty are licensed or credentialed in their respective fields.

Our Services Include:

Counseling and Psychotherapy
School and Clinical Psychological Assessment or Testing
We offer help for any child, teen, or adult, struggling with the following.
- Anxiety, fear, or worry
- Trauma
- Depression or sadness
- Anger
- Life stress and change
- Grief and loss
- Learning or succeeding in school

Services: (continued)

- Parenting
- Getting along as a family or couple
- Getting along in relationships
- Other emotional or social concerns
- Selective mutism

Additional specialty clinics:

- Child School Refusal and Anxiety Disorders Clinic
- Play Therapy
- Problem Gambling Treatment Program
- School and Clinical Psychological Assessment Clinic
- Tele-Counseling Center

UNLV College of EDUCATION College of LIBERAL ARTS

Commitment to Best Practices

At UNLV, the faculty supervisors are experts in their respective fields. Faculty and graduate student clinicians are committed to providing the best care possible, based on the most up to date research and knowledge available.

Fees and Hours

Our services are affordable. We set fees on a sliding scale to provide options that will work for most budgets. Only cash or checks are accepted. We do not bill insurance.

Appointments are available during business hours Monday - Friday. Evening appointments are also available Monday - Thursday. Call to schedule your initial consultation appointment. We look forward to helping.

Attachment #8

Sanford Center for Aging
University of Nevada, Reno

Retired and Senior Volunteer Program of Washoe County

Senior Outreach Services (SOS)

Education Talk

Getting older without getting angry

Steven E. Rubin MD

10 a.m. Tuesday, March, 13, 2012
Laxalt Auditorium, Nelson Building
401 W. 2nd St., Reno

This presentation will address the most common emotions challenging seniors, which include anxiety, depression, anger and grief.
Please join us for an enjoyable hour of interactive questions and answers.
Our goal is to make you an educated consumer so you can share this important information with your friends, family and your clients.

Steven E. Rubin, MD is a licensed medical doctor, board certified psychiatrist and practicing geriatrician. He specializes in dementia and other senior medical and psychiatric health issues. Dr. Rubin is an associate professor with UNR School of Medicine, a community adult educator, and author of *Autumn Leaves: Aging with and without dementia.*

NOTE:
SOS Volunteers please bring **drivers license** and **vehicle insurance** renewal cards to be scanned at the SOS Office (Room 101) Thank you!!!

Want to attend?

Volunteer Education Talks are **free** and open to anyone - bring a friend!

Respond by:
Friday, March 9, 2012
to Sina Ward at
784-7506 or
sinaw@unr.edu

Come early, at 9:30, and meet fellow volunteers over a cup of coffee or tea. The talk will start at 10 a.m. and last about an hour.

Parking: Free parking is available for this event in the metered city lot on the east side (right side as you face the front) of the Nelson Building, 401 W. 2nd St. , Reno.

Sanford Center for Aging
University of Nevada, Reno

RETIRED AND SENIOR VOLUNTEER PROGRAM OF WASHOE COUNTY
SENIOR OUTREACH SERVICES (SOS)
EDUCATION TALK

Finding meaning in the face of uncertainty

ElizaBeth Beyer,
RN, MSN, MSJS, MRS, JD

10 a.m. Tuesday, February 14, 2012
Laxalt Auditorium, Nelson Building
401 W. 2nd St., Reno

In this presentation Rabbi ElizaBeth Beyer will lead us on a motivational exploration of issues at end of life. She will also discuss difficulties in end of life decisions from a religious perspective.

Rabbi Beyer's background as a nurse, attorney, ethics consultant and rabbi make her uniquely qualified for this presentation.

ElizaBeth Beyer, RN, MSN, MSJS, MRS, JD, is a nurse, attorney, and a rabbi. She is the past chair and Assistant Professor for the Nevada Center for Ethics and Health Policy, University of Nevada, Reno, and has worked extensively with end of life patients**.**

NOTE: SOS volunteers please bring **drivers license** and **vehicle insurance** renewal cards to be scanned at the SOS Office (Room 101) Thank you!!!

Want to attend?

Volunteer Education Talks are **free** and open to anyone - bring a friend!

Respond by: Friday, February 10, 2012 to Sina Ward at 784-7506 or sinaw@unr.edu

Come early, at 9:30, and meet fellow volunteers over a cup of coffee or tea. The talk will start at 10 a.m. and last about an hour.

Parking: Free parking is available for this event in the metered city lot on the east side (right side as you face the front) of the Nelson Building, 401 W. 2nd St. , Reno.

Sanford Center for Aging
University of Nevada, Reno

RETIRED AND SENIOR VOLUNTEER PROGRAM OF WASHOE COUNTY

SENIOR OUTREACH SERVICES (SOS)

EDUCATION TALK

Early detection matters! Know the 10 Signs

Dolores M. Ward, MS

10 a.m. Tuesday, April 10, 2012
Laxalt Auditorium, Nelson Building
401 W. 2nd St., Reno

Memory loss that disrupts daily life is not a typical part of aging. It may be a symptom of Alzheimer's, a fatal brain disease that causes a slow decline in memory, thinking and reasoning skills.
Every individual may experience one or more of the warning signs in different degrees.
This program will provide information about the 10 warning signs of Alzheimer's disease and the importance of early detection.

Dolores M. Ward, MS.
As Program Coordinator for the *Alzheimer's Association of Northern Nevada*, she is the primary gatekeeper to the community, provides information and referral to family caregivers and to individuals with Alzheimer's disease. She serves as a liaison between health care, social service and community organizations in coordinating services for dementia family caregivers.
Dolores is also President of *Senior Service Network*, a nonprofit with the goal of having a positive impact on the quality of life of seniors citizens in our community.

NOTE:
SOS Volunteers please bring **drivers license** and **vehicle insurance** renewal cards to be scanned at the SOS Office (Room 101) Thank you!!!

Want to attend?

Volunteer Education Talks are **free** and open to anyone - bring a friend!

Respond by:
Friday, April 6, 2012
to Sina Ward at
784-7506 or
sinaw@unr.edu

Come early, at 9:30, and meet fellow volunteers over a cup of coffee or tea. The talk will start at 10 a.m. and last about an hour.

Parking: Free parking is available for this event in the metered city lot on the east side (right side as you face the front) of the Nelson Building, 401 W. 2nd St. , Reno.

expanding horizons — making connections

Osher Lifelong Learning Institute
at the University of Nevada, Reno

Sanford Center for Aging
University of Nevada, Reno

In Celebration of the City of Reno

Older Americans Month

never too old to play
older americans month 2012

Senior Outreach Services (SOS) and OLLI present

Dementia: The Musical

A one-hour reading with music presented by

Steven Rubin, MD and Kenn Pettiford

pianist extraordinaire

Dementia: The Musical *is a bittersweet look at life, love and death, and beyond. Set at the Lucky Star Extended Care Facility, this tells of the joys and heartbreaks that can accompany the aging process. This fictional work is based on a million true stories.*

Tuesday, May 15, 2012 at 10:00 a.m.

Admission is FREE!

Laxalt Auditorium, UNR Nelson Building, 401 W. 2nd Street, Reno

Please **RSVP** by May 11th to Sina Ward 775 784-7506 or to sinaw@unr.edu

Parking:

Free parking is available for this event in the metered city lot on the east side (right side as you face the front) of the Nelson Building

Sanford Center for Aging
University of Nevada, Reno

SENIOR OUTREACH SERVICES (SOS)
EDUCATION TALK

Getting Old Doesn't Have To Be Depressing!

Thomas L. Schwenk, MD

Tuesday, October 2, 2012
Laxalt Auditorium, Nelson Building
401 W. 2nd St., Reno
10 a.m. to 11 a.m.

It is commonly believed, but a myth, that depression is more common in the elderly. In fact, it has become a disease of increasingly younger patients and generally appears much earlier in life. However, the elderly can be afflicted with depression, either as a first event or recurrent from prior episodes. It is more common in combination with other chronic diseases, such as heart disease and diabetes.

This presentation will focus on how depression presents in the elderly, the types of symptoms that may affect patients, and the types of treatments that are available.

Dr. Thomas Schwenk, is Vice President of Health Sciences and Dean University of Nevada School of Medicine. He received his BS in Chemical Engineering and MD from the University of Michigan, trained in Family Medicine at the University of Utah, and served as Chair of Family Medicine at the University of Michigan. He is board-certified in both family medicine and sports medicine.

NOTE: SOS Volunteers please bring **drivers license** and **vehicle insurance** renewal cards to be scanned at the SOS Office (Room 101). Thank you!!!

Want to attend?

Volunteer Education Talks are **free** and open to anyone - bring a friend!

Respond by: Friday, **September 28**, 2012 to Sina Ward at 784-7506 or sinaw@unr.edu

Come early, at 9:30, and meet fellow volunteers over a cup of coffee or tea. The talk will start at 10 a.m. and last about an hour.

Parking: Free parking is available for this event in the metered city lot on the east side (right side as you face the front) of the Nelson Building, 401 W. 2nd St. , Reno.

Attachment #9

Sanford Center for Aging

University of Nevada, Reno

Medication Therapy Management (MTM)

Are Your Medications Making You Sicker?

Find out for sure… and it's FREE

The Sanford Center for Aging's Medication Therapy Management program offers free medication reviews to Nevada seniors age 60 and older taking **5** or more prescription drugs.

Participation is easy—no clinical appointments are necessary. We'll work with you to complete the paper work! A certified geriatric pharmacist will review your entire drug regimen (prescription drugs, over-the-counter medications, vitamins and herbal supplements) for safety and effectiveness. Then, the pharmacist will call you to go over the findings.

You will also receive a report with the recommendations and we will follow up with you to ensure that you are receiving the proper medications.

To learn more about the program or to participate, please contact **Teresa M. Sacks, MPH**

(775) 784-1612

Email: sackst@unr.edu

http://www.unr.edu/sanford/programs/mtm.aspx

Past studies of seniors taking medications have found:

80% were at risk of interactions between two or more prescriptions

41% were taking a drug not recommended for older adults.

16% were unknowingly receiving duplicate medication doses

MTM is funded by the Nevada Aging & Disability Services Division and the Marion G. Thompson Charitable Trust

Sanford Center for Aging
University of Nevada, Reno

Medication Therapy Management (MTM)
Program Summary

Sanford Center for Aging – Background

The Sanford Center for Aging (SCA) at the University of Nevada, Reno, was established in 1992 with a generous gift from Jean and Graham Sanford. Today, the center is supported financially by the endowment created from the Sanford's estate, grants, contracts, and philanthropic donations. The SCA is the only statewide university-based academic center devoted entirely to improving the health and well-being of Nevada's elder population. The mission of the SCA is "to develop innovative ideas, educational and research opportunities and community partnerships that add life to years."

Medication Therapy Management (MTM) - Introduction

In the United States, medication-related problems (MRP), adverse drug events (ADE) and medication errors (ME) are a significant public health concern. An estimated one in five Medicare beneficiaries discharged from acute care settings to home return within thirty days due to an adverse event, often medication-related (Flora, Parsons & Slattum, 2012). Evidence-based interventions, such as medication therapy management have demonstrated effectiveness in optimizing health outcomes and lowering risks associated with medication use in older adults (American Geriatrics Society 2012 Beers Criteria Update Expert Panel, 2012; Bunting, Smith & Sutherland, 2008; Institute of Medicine, 2006; Lam & Ruby, 2005; Lee, Grace, & Taylor, 2006).

In 2009, the Nevada Aging and Disability Services Division (ADSD) identified medication management as one of 16 essential services required to sustain or improve the health and well-being of the state's most vulnerable elder populations. For the past decade, the SCA's Medication Therapy Management (MTM) program has served nearly 1,000 elder Nevadans with chronic health conditions and complicated drug regimens. The MTM program is oriented toward preventing medication-related problems by:

1) educating seniors, caregivers, and legal guardians about medication mismanagement and polypharmacy,
2) providing comprehensive clinical geriatric medication assessments,
3) reducing the risk of errors associated with medication use in late life by identifying medication-related problems and recommending geriatric-specific solutions, and
4) encouraging communication/dialogue between seniors and their physicians.

How the Program Works

Participation is easy – no clinical appointments are necessary. The review process is initiated with the completion of an *MTM Information Form* by the prospective client, family member, caregiver, or guardian. The information is verified and transmitted to the Certified

Geriatric Pharmacist (CGP) who reviews the client's entire drug regimen (prescription drugs, over-the-counter (OTC) medications, vitamins and herbal supplements) for safety and effectiveness. The medication evaluation areas include:

- High risk or inappropriate drugs,
- WATCH medications,
- Interactions (Rx/Rx; Rx/OTC; Rx/Supplement; Rx/disease state),
- Duplications,
- Side effects,
- Health concerns,
- Dosage amounts,
- Administration schedules,
- Cost, and
- Untreated health concerns

The CGP determines if each medication is necessary and if the regimen can be simplified. The client receives a personal telephone consultation with the clinical pharmacist, as well as, receiving a formal report enumerating the therapeutic recommendations. The SCA forwards a copy of the client's MTM report to the primary care physician and provides additional copies for each of the client's specialists.

MTM Case Study

The need for these types of MTM programs and services can best be illustrated through the lens of a current MTM client: A low income, 80-year-old male residing in Elko, NV. "Mr. A" contacted the SCA after receiving an MTM flyer from the Senior Rx program. The client was taking all seven of his medications all at once in the morning. Many of the medications were antihypertensives which dropped his blood pressure too low causing him significant nausea until the early evening. Further, he was taking high doses of Aleve (a high risk medication for seniors) for arm pain without the use of a Proton Pump Inhibitor (PPI) to decrease the risks associated with the use of a Nonsteroidal Anti-Inflammatory Drugs (NSAIDs). NSAIDs increase the risk for heart attack and stroke and can induce gastrointestinal ulceration/bleeding. His administration schedule was adjusted which resolved the nausea. His physician was informed of the long-term use of Aleve and the potential need for a PPI to prevent GI injury. Upon follow-up, Mr. A's health was much improved and he was grateful for the consultation with the CGP. The client was also struggling with an increase in his Medicare Part D prescription drug plan (PDP) premium. He was referred to a State Health Insurance Program (SHIP) volunteer who was able to assist him by enrolling him in a more appropriate PDP.

Program Findings

During the most recent grant period (July 1, 2011 – June 30, 2012), the MTM program served a total of 106 elders at risk for MRP and ADEs.

- average age: 74
- average number of prescription drugs: 9.9
- percentage of clients taking 15 prescription drugs or more: 13.3%

Preliminary FY 2012 findings are illustrated in the following table:

FY 2011-12: "Preliminary" MTM Results	
Potential high risk medication use in the elderly	**39.3%**
Potential Rx/Rx Interaction	**58.9%**
Potential Rx/Rx Duplication	**7.3%**
Potentially Untreated Medical Conditions	**53.6%**
Inappropriate Dosage Amount	**21.4%**
Inappropriate Medication Schedule	**25.0%**

Client post-test surveys revealed that 95% of the MTM clients spoke to their physician(s) regarding the findings in their evaluation, and 83% of the physicians made changes in their patient's drug regimen. Improved health outcomes and health literacy with regard to medication use were also reported by the clients.

Recent Publication

Cook, D.M., Valencia Moulton, P., Sacks, T.M., and Yang, W. (2011). Self-reported responses to medication therapy management services for older adults: Analysis of a 5-year program, *Research in Social and Administrative Pharmacy*, 8, 217-227.

Marketing and Outreach

The SCA utilizes existing community partners, the state's aging network including ADRC sites, and others to reach vulnerable elder populations. In accordance with the state's mandate to serve those most in need, a concerted effort has been placed on reaching frail, low income, rural dwelling, and minority elders. To this end, partnerships have been formed with the state's Senior Rx and SHIP programs. The Project Director, CGP, and graduate research assistant routinely conduct community presentations at various venues such as low income housing units, support groups, and volunteer forums. Program materials also are distributed statewide to senior centers, home health agencies, Elko Alzheimer's clinic and others. Partnerships with the Senior Outreach Services (SOS) program, Washoe County Respite Program, the Nevada

Caregiver Support Center, the School of Medicine's Student Outreach Services Clinic (geriatric specific), Orvis nursing student groups, and ADSD social workers remain strong.

The MTM Team

For the past ten years, the SCA has contracted with IntegriCare Clinical Associates (ICA) to perform medication reviews. ICA is a group of clinical certified geriatric pharmacists (CGP) with the expertise required to perform in-depth medication review and analyses for the clinically complex geriatric patient. MTM services are coordinated and managed by the Principal Investigator and Project Director who is responsible for all facets of the program including marketing and outreach activities, building community partnerships, conducting client follow-up interviews, administering the post-survey, data analyses, and report writing. This work is supported by and enhanced with one graduate research assistant and one undergraduate student assistant.

Program Sponsors

The MTM program is sponsored by the Nevada Aging and Disability Services Division (ADSD) with Title III-D funding, 2001-current. The program also receives annual supplemental funding from the Marion G. Thompson Charitable Trust. These funds are used to supplement ADSD funding by conducting additional medication evaluations, financial support for a 10-hour/week graduate research assistant, media advertisements, and long-distance travel to southern Nevada and rural/frontier areas of the state.

Attachment #10

Unit: ***Memory & Dementia***

Introduction: The Memory and Dementia lesson is designed to familiarize ADRC service providers with expected memory changes over time, types of memory, unexpected memory changes, the differences between dementia, delirium, and depression. The lesson also features a "real-life" illustration of the effects of Alzheimer's disease

Learning Overview: Trainees will…

- Participate in a session designed to teach and/or enhance knowledge of expected memory changes with age, types of memory and types of dementia and differences between dementia and delirium.
- Develop and refine knowledge of expected and unexpected memory changes of older adults in order to improve interaction with seniors and their caregivers to optimize assessment of their needs.
- Learn the meaning of dementia, differences between dementia and delirium, Alzheimer's disease, MCI, risk factors.

Anticipated Outcomes for the Unit: Trainees will understand…

- The difference between expected and unexpected memory loss as it relates to aging
- The differences between dementia, delirium, Alzheimer's disease, and MCI
- Various risk factors for developing Alzheimer's disease
- How mental health professionals use dementia and screening/diagnostic workups
- The importance of ADRC worker sensitivity when working with seniors with dementia

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References:

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Alzheimer's disease Risk Factors and Prevention. Available at:

www.ahaf.org/alzheimers/about/risk.

American Medical Directors Association Clinical Practice Guideline: Dementia.

Available at: www.amda.com/info/cpg/dementia.htm.

American Psychiatric Association. (1994). Diagnostic and Statistical Manual of Mental

Disorders. 4th ed. Washington, DC: American Psychiatric Association. 133-156.

The Artwork of William Utermohlen. Available at: www.williamutermohlen.org.

Chronic Care Networks for Alzheimer's disease Initiative. Tools for early identification, assessment, and treatment for people with Alzheimer's disease and dementia. Alzheimer's Association and National Chronic disease Consortium. Available at: www.ncconline.org.

Cummings, J.L. et al. (2002). Guidelines for managing Alzheimer's disease: Part I. Assessment. *American Family Physician, 65,* 2263-2272.

Cummings, J.L. et al. (2002). Guidelines for Managing Alzheimer's disease: Part II. Treatment. *American Family Physician, 65,* 2525-2534.

Geldmacher, D. (2003). Long-term Cholinesterase inhibitor therapy for Alzheimer's disease: practical considerations for the primary care physician. *Primary Care Companion Journal of Clinical Psychiatry, 5,* 251-259.

Garavaglia, B. (2007). The pitfalls of diagnosing dementia: Looking beyond patient age. *Long Term Care Interface, 8,* 46-48.

Hazzard, et al, Principles of Geriatric Medicine and Gerontology. 2nd ed.

LESSON:
Begin Lesson:

There are various types of memory: Working memory, short-term memory, long-term memory, semantic memory, episodic memory-autobiographical memory, muscle memory language-comprehension, visual spatial, calculation, executive control, and self-regulation. Memory changes can be expected after the age of 40, however, these changes tend to be insignificant. For instance working memory declines only 10% and semantic memory, recognition & cued recall, and ability to recall concepts and meaningful information remain intact. However, unexpected memory changes can occur as a result of disease such as Alzheimer's, Pick's, and Parkinson's disease. Dementia and delirium are often concepts that are confused with each other; dementia includes irreversible loss of memory and impairment of intellectual ability of sufficient severity to interfere with social and occupational function whereas delirium includes disorganized thinking and confusion which is often reversible. Further, older adults with depression often experience memory loss. Understanding the differences between dementia, delirium and depression are important in working with older adults who may exhibit these symptoms.

Anticipatory Set:

Today we will explore the different types of memory, expected and unexpected memory loss, dementia, delirium, depression, Alzheimer's disease, symptoms, early presentation, risk factors and assessment. These topics are important when assessing older adults because:

- Dementia is a global progressive deterioration that can result in problems with memory, thought, language, behavior, personality, and mood.
- Loss of memory and impairment of intellectual ability of sufficient severity to interfere with social and occupational function.
- Dementia can be an insidious, slow, gradual onset that results in a decline in Activities of Daily Living (ADLs), behavior, and cognition.

SHARE THE OBJECTIVE: During this meeting we will be discussing the following *types of memory*:

- **Working memory**
- **Short-term memory**
- **Long-term memory**
- **Semantic memory**
- **Episodic/autobiographical memory**
- **Muscle memory (Praxis)**
- **Language/comprehension**
- **Visual/spatial skills**
- **Calculation**
- **Executive control**
- **Self regulation**

We will also be discussing *other factors that contribute to memory and unexpected memory loss*:

- **Dementia**
- **Delirium**
- **Depression**
- **Diseases that are associated with dementia**
- **Alzheimer's disease**
- **Risk factors of Alzheimer's disease**
- **Screening/diagnostic workup**
- **Mild cognitive impairment (MCI)**

Input: **Types of Memory**

Working Memory

This memory system keeps information in mind that aids in accomplishing tasks. An example of using working memory is retaining multiple words or numbers at a time.

Short-Term Memory

The short-term memory is the holding area for recently acquired information. This type of memory has limited capacity, but if repeated and organized can be filed in an individual's long-term and semantic memory.

Long-Term Memory

The long-term memory is the holding area for long-term information and has a large capacity.

Semantic Memory

The semantic memory works to store long-term facts, concepts, and vocabulary. The semantic memory consists of an individual's knowledge of the world.

Episodic Memory

The episodic memory is an individual's autobiographical memory for life's episodes. This type of memory consists of memories made within a content of time and place.

Muscle Memory (Praxis)

The muscle memory consists of movement without conscious thought.

Visual/Spatial Skills

This is a set of mental processes that allow people to perceive, interpret, and act on visual stimuli in our environment. "Visual" refers to environmental information that we take in through our eyes. "Spatial" refers to where things are in three-dimensional space. Visual-spatial information not only tells us what the surrounding environment looks like, it also guides our movements in the environment. People with Visual-Spatial deficits may exhibit:

- Poor judgment of depth and distance
- Inattention to visual-spatial information
- Visual-spatial neglect
- Difficulty finding objects in cluttered environments
- Difficulty recognizing printed letters or words
- Difficulty recognizing numbers or other symbols
- Difficulty recognizing familiar objects or faces
- Difficulty navigating in familiar or unfamiliar environments

Strategies for managing visual-spatial deficits include:

- Recognizing the Problem
- Practice – Lots of Practice
- Reduce Clutter
- Simple Décor is Best
- Organize Your Environment and Keep it Constant
- Use Your Sense of Touch
- Use Language to Guide You

Calculation

This type of memory works with mental arithmetics, such as balancing a checkbook or computing tips.

Executive Control

This type of memory works with reasoning, judgment, abstract thinking, focusing, and personality. This type of memory occurs in the frontal lobe of the brain.

Self-Regulation

This type of memory determines socially appropriate behavior. This would also include controlling oneself over impulse and temper, as well as sexual modesty. This type of memory occurs in the frontal lobe of the brain.

Input: **Dementia, Delirium, and Depression**

Dementia

Dementia is a global progressive deterioration, which includes problems in one's memory, thought, language, behavior, personality, and mood. The loss of memory and impairment of intellectual ability interferes with an individual's social and occupational functioning. The memory loss associated with Dementia has a slow, gradual onset which results in a decline in activities of daily living (ADLs), behavior, and cognition.

Dementia is memory loss plus one or more of the following cognitive difficulties:

- Disorientation
- Disturbed executive functioning
- Aphasia (language disturbance)
- Apraxia (skilled movement disturbance)
- Agnosia (disturbance in recognition)
- Impaired attention and concentration
- Change from baseline function not attributable to other causes

Delirium

Delirium is an acute confusional state characterized by recent onset, fluctuating over days, and wandering attention span. Delirium has a rapid onset, from hours to days. It is further characterized as an impaired ability to maintain attention to external stimuli, being easily distracted, and in difficulty shifting attention to new external stimuli. It is often reversible.

Depression

Memory loss is a prominent feature in older adults with depression. Characteristics of this might include dysphoric mood, loss of interest or pleasure in usual activities, and decreased concentration. Other warning signs might consist of loss of appetite, loss of weight, decreased energy, sleep disturbances, feelings of worthlessness, and suicidal ideation.

Input: **Diseases that Cause or Contribute to Dementia**

The following diseases contribute to an individual developing dementia:

- Alzheimer's disease
- Pick's disease
- Jakob Creutsfeld disease (prion, Mad Cow)
- Frontotemporal Dementia
- Parkinson's disease
- Huntington's Chorea
- Lewey Body Dementia
- Progressive Supranuclear Palsy
- Vascular Dementia (multi-infarct)
- AIDS

Alzheimer's disease

Alzheimer's disease accounts for approximately 70% of dementias. Alzheimer's disease is a progressive degenerative brain disease with development of neuritic plaques and neurofibrillary tangles resulting in brain cell loss and depletion of neurotransmitters. This disease has a gradual onset ranging from 2 – 20 years. The most frequent symptoms of Alzheimer's disease are memory loss, impaired reasoning, language deficits, impaired orientation, and overall poor comprehension. Alzheimer's can be described in a number of different ways, but are most commonly described using from four to seven stages: The four-stage model of Alzheimer's disease is as follows:

Four-stage model of Alzheimer's disease:

- **Stage I**: Early Presentation
- **Stage II**: Moderate Functional Decline
- **Stage III**: Significant Cognitive/Functional Decline
- **Stage IV**: Total Dependency

The common characteristics associated with the **first stage** of Alzheimer's disease include the early presentation of decline. This may include misplacing or losing items, making repetitive requests, driving and financial difficulties, depression, poor nutrition, irritability, and increased confusion and anxiety.

The **second stage** of Alzheimer's disease includes the individual experiencing a moderate functional decline. Characteristics in this stage may include obvious deficits in memory, retention, recall, judgment, and planning. Individuals in this stage may also experience feelings of being disoriented, delusional, confused, and an inability to initiate and/or complete normal routines. Individuals at this stage may be resentful and angry towards interferences from others. Recommended interventions at this stage include: simplify, set up, supervise, reassure, allow time, rest, and visual cues.

In the **third stage** of Alzheimer's disease, an individual may be experiencing more significant cognitive and functional decline. This may include one being disoriented to place, person, and self, as well as marked decline in motor abilities. Other characteristics an individual may be experiencing during this stage include presenting a confused, restless, aggressive, immodesty, and overly dependent. Recommended interventions at this stage of Alzheimer's disease include: simplify environment, communications, assist, cue, distract, and redirect.

In the **fourth stage** of Alzheimer's disease, an individual may become totally dependent for their needs. Characteristics at this stage may include incontinence, Ataxia, hallucinations, and restlessness. Persons at this stage may also be at a higher risk for infection and injury. The recommended interventions at this stage would be to focus on compassionate and comfort care for the individual, as well as providing them with pleasant stimuli and assisting them in their everyday activities of daily living.

The seven-stage model of Alzheimer's disease is as follows:

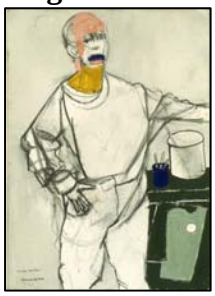
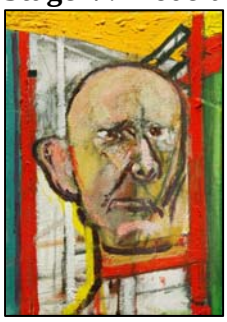
Seven-stage model of Alzheimer's disease (from www.alz.org):

- **Stage I**: No impairment (normal function)
- **Stage II**: Very mild cognitive decline (may be normal age-related changes or earliest signs of Alzheimer's disease)
- **Stage III**: Mild cognitive decline (early-stage Alzheimer's can be diagnosed in some, but not all, individuals with these symptoms)
- **Stage IV**: Moderate cognitive decline (mild or early-stage Alzheimer's disease)
- **Stage V**: Moderately severe cognitive decline (moderate or mid-stage Alzheimer's disease)
- **Stage VI:** Severe cognitive decline (moderately severe or mid-stage Alzheimer's disease)
- **Stage VII:** Very severe cognitive decline (severe or late-stage Alzheimer's disease)

It makes no difference whether one follows the four-stage model, the seven-stage model, or something in-between—it's all based on personal preference. Just be aware that the stages of Alzheimer's disease can be conceptualized in any of these ways, and be sure that you have a mutual understanding of which model to refer to when communicating with others about Alzheimer's stages. In other words, if you refer to the seven-stage model when talking to consumers and mental health professionals, be sure to let them know because, for instance, they may assume you are referring to the four-stage model.

The Effects of Alzheimer's disease According to the Seven-stage Model (based on the work of 20th century artist, William Utermohlen)

In 1995, American artist William Utermohlen was diagnosed with Alzheimer's disease. He made an immediate decision: as long as his faculties lasted, he would document his condition by periodically painting self-portraits. Using representations of the changes captured by Mr. Utermohlen, the following slides take us through the progression of Alzheimer's disease through the mind of an afflicted artist. Take special note of how the progression of the disease affected Mr. Utermohlen's self-concept (from: www.williamutermohlen.org).

Stage I: No impairment 	**Stage II**: Very mild cognitive decline 
Stage III: Mild cognitive decline 	**Stage IV**: Moderate cognitive decline 
Stage V: Moderately severe cognitive decline 	**Stage VI:** Severe cognitive decline 

Stage VII: Very severe cognitive decline 	

Input: **Risk Factors for Alzheimer's disease, Alzheimer's Screening, and Treatment Options**

Alzheimer's disease Risk Factors

Some risk factors associated with Alzheimer's disease include:

- Genetic predisposition
- History of head injury
- Down's Syndrome
- Gender (Female)
- Stroke/heart disease

Strategies to reduce one's risk of developing Alzheimer's disease include treating vascular diseases, Hypertension, elevated cholesterol, and homocysteine levels. Other preventative measures include working to prevent or treat diabetes, increase one's mental and physical activity, and being socially connected. Also diets high in Vitamin C, Vitamin E, Omega 3 fatty acids, and antioxidents such as Gingko biloba have been shown to reduce the risk of Alzheimer's disease

Screening/Diagnostic Workup

In order to identify those persons at-risk for developing dementia, ADRC workers should be familiar with how mental health professionals assess individuals for possible Alzheimer's symptoms. This may include looking closely at those clients that are 65 years and older, those clients presenting with early warning signs, as well as those under the age of 65 who have a history of head injuries, depression, and/or stroke. As an ADRC staff, you may glean some of this information through the interview process—especially when all medical and psychiatric histories are explored. However, it is important to reiterate that only mental health professionals are qualified to properly screen for possible Alzheimer's disease.

Treatment Options

There is no cure for Alzheimer's disease, and in fact, the scientific advisors of the American Health Assistance Foundation (AHAF) do not currently recommend or endorse any commercial nutritional supplement, exercise program, or cognitive training exercises for the purposes of preventing Alzheimer's disease. In spite of this, AHAF encourages

people to evaluate the role of these interventions on the overall health and spirits of both the patient and caregivers (source: http://www.ahaf.org/alzheimers/about/risk/).

Current treatment recommendations for those persons with dementia include:

- Cognitive enhancers (ChEl's) Aricept, Exelon, Razadyne, and Namenda to help maintain memory and cognitive skills.
- Symptom management-agitation, depression, delusions, and hallucinations.
- Vitamin E to slow decline
- Phosphatidyl Serine (PS)-increases cognitive function
- Supportive services and planning for future
- Family Education
- Behavioral interventions
- Activities/Art

Input: **Mild Cognitive Impairment (MCI)**

Persons with Mild Cognitive Impairment (MCI), include those persons who are memory impaired by report and by testing but otherwise functioning well with normal judgment, perception, and reasoning skills and do not meet the clinical criteria for dementia. Individuals with MCI should be identified and monitored for cognitive and functional decline due to their increased risk for subsequent dementia. However, there are currently no recommended treatments for persons with MCI.

Input: **Summary**

Memory changes happen after age 40, but, the changes are gradual and usually not very noticeable. Most peoples' working memory declines only about 10%; whereas semantic memory, recognition, cued recall, and ability to recall concepts and meaningful information do not regress. However, unexpected memory changes can occur as a result of disease.

Dementia is a global progressive deterioration. It affects memory, thought, language, behavior, personality, and mood. The memory loss associated with Dementia has a slow, gradual onset which results in a decline in activities of daily living (ADLs), behavior, and cognition. Loss of memory and impairment of intellectual ability due to dementia also interferes with a person's social functioning.

Delirium is an acute confusional state that is characterized by fluctuating over days and wandering attention span. Delirium has a rapid onset, from hours to days. It is further characterized as an impaired ability to maintain attention to external stimuli, being easily distracted, and in difficulty shifting attention to new external stimuli. It is often reversible

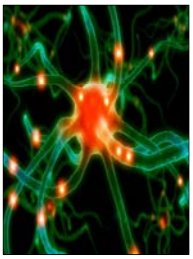
Depression was also mentioned in this lesson as it is yet another "D" that relates to memory. Memory loss is a prominent feature in older adults with depression. Characteristics of this might include dysphoric mood, loss of interest or pleasure in usual activities, and decreased concentration. Other warning signs might consist of loss of appetite, loss of weight, decreased energy, sleep disturbances, feelings of worthlessness,

and suicidal ideation.

Alzheimer's disease accounts for most (about 70%) of dementia cases. Alzheimer's disease is a progressive degenerative brain disease with development of neuritic plaques and neurofibrillary tangles resulting in brain cell loss and depletion of neurotransmitters. This disease has a gradual onset ranging from 2 – 20 years, which differentiates it from delirium; and the most frequent symptoms of Alzheimer's disease are memory loss, impaired reasoning, language deficits, impaired orientation, and overall poor comprehension. Alzheimer's can be described in a number of different ways, but are most commonly described using from four to seven stages: The four-stage model. Some risk factors associated with Alzheimer's disease include genetic predisposition, a history of head injury, Down's syndrome, gender (female), and stroke or heart disease.

Persons with Mild Cognitive Impairment (MCI), include those persons who are memory impaired by report and by testing but otherwise functioning well with normal judgment, perception, and reasoning skills and do not meet the clinical criteria for dementia. Individuals with MCI should be identified and monitored for cognitive and functional decline due to their increased risk for subsequent dementia. There are currently no recommended treatments for persons with MCI.

Memory and Dementia



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Aging and Disability Resource Center (ADRC)

Single Entry Point Service System

- Multiple Access Points
- Simplify Access to Services and Supports
- Reduce Redundancies
- Screening and Assessment
- Supports Independence and Choice in the Community

ADRC Framework

- Intake… the *initial conversation*
- Information and Referral (I & R)
- Assistance and Advocacy (A & A)
  - Options Counseling
- Eligibility and Access (E & A)
  - Benefits Counseling

Trainees

- ADRC specialists
  - Intake workers
  - Advocates
  - Other ADRC site staff
- Aging and Disability Services Division (ADSD) staff

Learning Objectives

Become familiar with:

- Types of memory
- Memory changes expected with age
- The difference between delirium and dementia

Learning Objectives

Become familiar with:

- ADLs and IADLs as they relate to Alzheimer's Disease (AD)
- ADLs and IADLs as they relate to Alzheimer's Disease (AD)
- The stages of AD

Learning Objectives

Become familiar with:

- Basic AD risk factors
- Basic AD screening
- Current AD treatment recommendations

Introduction: Types of Memory

- Short term memory
  - Holding area for recently acquired information
  - Limited capacity
  - "Working memory" - Capacity for 1-8 words or numbers at a time

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Introduction: Types of Memory

- Long term memory
  - Great capacity
  - "Semantic memory" - Well stored facts and meanings
  - Examples:
    - Vocabulary
    - Knowledge of the world (i.e., "An automobile is a 4 wheeled vehicle with an engine, brakes, gas pedal, headlights and taillights")

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Introduction: Types of Memory

- Episodic memory
  - Autobiographical memory for life's episodes
  - Memories made within a context of time and place
  - Examples:
    - Remembering your first day of kindergarten
    - Remembering a summer vacation with your grandparents
- Muscle memory (Praxis)
  - Movement without conscious thought
  - Examples:
    - How to drive a car, ride a bike, or write with a pencil

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Memory Skills

- Language-comprehension of written and spoken word
  - Ability to speak and write
  - Examples:
    - Mingling with friends at a party
    - Writing a letter

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Memory Skills

- Visual spatial skills
  - A set of mental processes that allow us to perceive, interpret, and act upon visual stimuli in our environment
  - Examples:
    - Hitting a baseball
- Executive control
  - Reasoning, judgment, abstract thinking, focus, attention shift, personality.

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Memory Changes Expected After Age 40

- Decreased reaction time and information processing
  - Multitasking may become more difficult
- Semantic memory declines
  - Retrieval of names and numbers becomes more difficult
  - Some word finding difficulty
- Working memory declines

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What is Delirium?

- Acute state of confusion characterized by recent onset, which fluctuating over time
  - A "wandering attention span"
  - Rapid onset: hours to days
- Impaired ability to maintain attention to external stimuli, easily distracted, and difficulty shifting attention to new external stimuli
- Disorganized thinking

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What is Delirium?

- Can be considered "temporary dementia"
  - **D**rugs -or- depression
  - **E**ndocrine (hypothyroid, diabetes)
  - **M**edications -or- metabolism
  - **E**ar, nose, and throat problems
  - **N**utrition (B12 deficiency)
  - **T**rauma -or- tumor
  - **I**nfection
  - **A**cute -or- alcohol

Helpful acronym

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DEMENTIA IS
NOT
NORMAL AGING

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What is Dementia?

- Global progressive deterioration
- Problems in memory, thought, language, behavior, personality, and mood
- Loss of memory and impairment of intellectual ability of sufficient severity to interfere with social and occupational function

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What is Dementia?

- Insidious, slow, gradual onset
- Decline in activities of daily living (ADLs), behavior, and cognition
- Memory loss plus 1 or more of the following cognitive difficulties:
  - Disorientation
  - Disturbed executive functioning
  - Aphasia
  - Apraxia
  - Agnosia
  - Impaired attention/concentration

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What are ADLs?

- Activities of Daily Living such as:
  - **D**ressing
  - **E**ating
  - **A**mbulating
  - **T**oileting
  - **H**ygiene

Helpful acronym

- Important activities that are affected by dementia

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What are IADLs?

- Instrumental activities of daily living such as:
  - Using the phone
  - Paying bills
  - Shopping
  - Cooking
  - Transportation
- Important activities that are affected by dementia

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ADLs versus IADLs

- ADLs involve personal, intimate contact; further ADLs cannot be performed when convenient (e.g., assistance with toileting)
- Easier to get informal assistance with IADLs than with ADLs
  - Example: It is easier to get someone to assist in payment of bills than to assist in taking a bath
- Decline in ADLs more likely to result in need for assisted living

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Diseases Associated with Dementia

- Alzheimer's Disease
- Pick's Disease
- Jakob Creutsfeld Disease (prion, Mad Cow)
- Frontotemporal Dementia
- Parkinson's Disease
- Huntington's Chorea
- Lewey Body Dementia
- Progressive Supranuclear palsy
- Vascular Dementia (multi-infarct)
- Aids

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Dementia and Alzheimer's

- "Dementia" is a category like "flower" is a category
- Alzheimer's disease is one type of dementia just as a tulip is one type of flower
- Having dementia does NOT mean you have Alzheimer's disease just like having a flower does not mean you have a tulip.

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What is Alzheimer's Disease?

- Alzheimer's disease-approximately 70% of dementias
- Progressive degenerative brain disease with development of neuritic plaques and neurofibrillary tangles resulting in brain cell loss and depletion of neurotransmitters
  - Progression is tracked in *phases*, the number of which usually varies from 4-7
- Gradual onset 2-20 years

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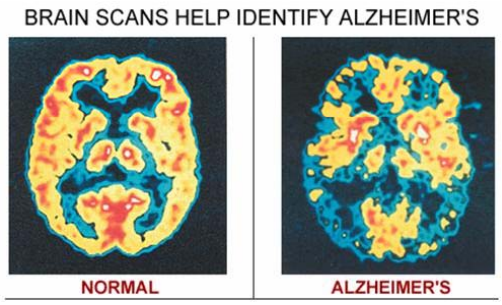
Normal vs. Alzheimer Brain



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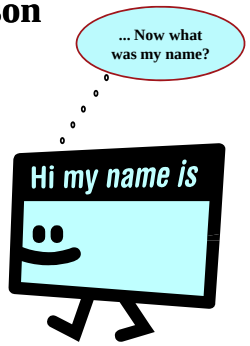
A Brief Comparison

- A typical adult forgets, then recalls that he forgot, and later may remember what he forgot
- An Alzheimer patient forgets, forgets he has forgotten, and 5 minutes later doesn't care



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Most Frequent Symptoms of Alzheimer's Disease

- Memory loss
- Impaired reasoning
- Language deficits
- Impaired orientation
- Poor comprehension

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William Utermohlen

In 1995, American artist William Utermohlen was diagnosed with Alzheimer's disease. He made an immediate decision: as long as his faculties lasted, he would document his condition by periodically painting self-portraits. Using representations of the changes captured by Mr. Utermohlen, the following slides take us through the progression of AD through the mind of an afflicted artist.

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AD Stage I: No Impairment

- Normal functioning
- No signs or symptoms of AD onset

1977 Self-portrait by William Utermohlen (before the onset of AD symptoms)

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

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AD Stage II: Very Mild Cognitive Decline

- Transportation problems
  - Driving difficulties
  - Getting lost
- Financial difficulties
  - Balancing checkbook
  - Remembering to pay bills
- Emotional difficulties
  - Irritable, stubborn, anxious, agitated

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

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AD Stage II: Very Mild Cognitive Decline

- Person begins to forget some things, but still not displaying detectable signs of dementia
- More symptoms
  - Forgetting word meanings
  - Losing things
  - Repeating requests
  - Depression
  - Inappropriate behavior

1995 Self-portrait by William Utermohlen (beginning of AD symptoms)

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

AD Stage III: Mild Cognitive/Functional Decline

- Memory deficits
  - Retention, recall, judgment, and planning
- Disoriented, delusional, confused, inability to initiate and/or complete normal routines
- Resenting interferences from others

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

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AD Stage III: Mild Cognitive/Functional Decline

- Early stage AD detected in some, but not all
- More symptoms
  - Memory complaint, preferably with corroboration
  - Objective memory impairment
  - Reduced performance on memory test but normal judgment, perception, and reasoning skills
- Interventions
  - Monitor, simplify, reassure, allow time to rest

1996 Self-portrait by William Utermohlen (beginning of AD symptoms)

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

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AD Stage IV: Moderate Cognitive/Functional Decline

- Disorientation of place, person, self
- Declining motor abilities
- Confused, restless, aggressive, hallucinates, dependent
- Lacks awareness of danger
- Immodesty
- Moody, withdrawn

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

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AD Stage IV: Moderate Cognitive/Functional Decline

- More symptoms
  - Short-term forgetting
  - Difficulty with complex tasks
    - Example: planning a meal for guests, counting backward from 50 by 6s
- Interventions
  - Simplify environment, communications, assist, redirect

1997 Self-portrait by William Utermohlen progressive AD symptoms)

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

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AD Stage V: Moderately Severe Cognitive/Functional Decline

- Significant memory lapses
- Need of assistance with ADLs
- Unable to choose season-appropriate clothing on their own
- Rambling speech
- Unusual thinking patterns

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org
http://www.medterms.com/script/main/art.asp?articlekey=11065

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AD Stage V: Moderately Severe Cognitive/Functional Decline

- More symptoms
  - Unable to remember own address, phone number
  - Unable to recognize where they are, what day it is
  - Trouble with simple mental arithmetic

1998 Self-portrait by William Utermohlen (progressive AD symptoms)

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org
http://www.medterms.com/script/main/art.asp?articlekey=11065

AD Stage VI: Severe Cognitive Decline

- Incontinence
- Hallucinations, restless, agitated
- Ataxia
  - Incoordination and unsteadiness
- Cachexia
  - Loss of weight and muscle mass
- At-risk for infection, injury

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org
http://www.medterms.com/script/main/art.asp?articlekey=11065

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AD Stage VI: Severe Cognitive Decline

- More symptoms
  - Remember own name, but difficulty recalling own history
- Interventions
  - Focus on compassionate comfort care, provide pleasant stimuli, perform all ADL's

1999 Self-portrait by William Utermohlen (advanced AD)

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org
http://www.medterms.com/script/main/art.asp?articlekey=11065

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AD Stage VII: Very Severe Cognitive Decline

- Loss of ability to:
  - Communicate
  - Remember
  - Process information
  - Control reflexes
  - Swallow

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org
http://www.medterms.com/script/main/art.asp?articlekey=11065

AD Stage VII: Very Severe Cognitive Decline

- More symptoms
  - Unable to care for self
  - Extreme problems with:
    - Mood
    - Behavior
    - Hallucinations
    - Delirium
  - May lose ability to smile, sit up
- Intervention
  - Round the clock professional care

2000 Self-portrait by William Utermohlen (advanced AD)

Sources: http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
http://www.williamutermohlen.org

Risk Factors for AD

- Genetic predisposition
- Advanced age (65+)
- History of head injury
- Down's Syndrome
- Gender (female)
- Stroke/heart disease

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How to Reduce AD Risk

- Treat/prevent
  - Vascular disease
  - High blood pressure
  - Elevated cholesterol
  - Elevated homocysteine
  - Diabetes
- Increase
  - Education
  - Mental activity
    - "Mental gymnastics"
  - Physical activity
  - Social connections
  - Vitamin intake
    - Vitamin C, Vitamin E, Omega 3 fatty acids, Ginko biloba

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Basic AD Screening

Consult a behavioral health professional. They will assess:

- Risk factors
  - Is the consumer over the age of 65?
  - Is the consumer female?
- Medical and psychiatric history (informant based interview)
  - Does AD run in the consumer's family?
  - Does the consumer have a personal history of head injury, depression, or stroke?
  - Assess cognitive status
    - Mini Mental State Exam, clock drawing, etc.

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Basic AD Screening

Consult a behavioral health professional. They will assess:

- Functional abilities
  - Can the consumer drive safely?
  - Are they independent, or relatively independent?
  - Do they get lost easily?
- Physical exam and labs
  - CBC, CMP, Thyroid, B12, folate, VDRL, homocysteine, lead
- Neurological exam and neuroimaging
  - Magnetic Resonance Imaging/CT head scan

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Early Identification of AD

- Marked by very mild to mild cognitive impairment
- Early identification can be difficult, but is made possible through:
  - Pet Scan
  - Visualizing amyloid
  - Functional MRI

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Current Treatment Recommendations

- No cure as of today
- Symptom management
  - Touch and interaction improves AD persons'
- Behavioral interventions
- Supportive services and planning for the future
  - Family education
- Activities
  - Art
  - Reading
  - Puzzles

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Online Resources

- http://www.alz.org/alzheimers_disease_stages_of_alzheimers.asp#stage1
- http://www.medterms.com/script/main/art.asp?articlekey=11065
- http://www.williamutermohlen.org
- http://www.ahaf.org/alzheimers/about/risk/

Unit: ***Managing Difficult Behaviors associated with ADLs in Consumers with Dementia***

Introduction: The Managing Difficult Behaviors lesson is designed to familiarize service providers, both staff and volunteers, as well as informal caregivers such as family members, with strategies to manage difficult behaviors associated with activities of daily living (e.g. bathing, eating, toileting) while caring for individuals with dementia.

Learning Overview:

- Trainees will participate in a session designed to teach and/or enhance knowledge of causes of difficult behaviors; strategies for interventions; causes of malnutrition; as well as compare and contrast "Old Model" of bathing to "Cultural Change Model".
- Trainees will engage in experiential exercises designed to simulate senior challenges related to difficult behavior.
- Role-playing will allow trainees to practice applying newly learned skills.

Anticipated Outcomes for the Unit:

- Increase knowledge of causes of difficult behavior
- Increase knowledge of interventions that re-direct, de-escalate, or prevent the undesirable behavior
- Understand at least five potential causes of malnutrition
- Learn strategies that can be implemented to improve quantity and quality of nutritional intake
- Compare the "Old Model" with the new "Cultural Change Model" of bathing
- Describe at least three strategies to improve the bathing experience for the consumer

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LESSON:
Begin Lesson:

Behavior disturbances such as wandering, screaming, and aggression occur in over 50% of dementia consumers. Areas where aggressions/agitations are most likely to occur are: toilet, dining room, and the bath/shower. Aggression is theorized to be correlated to cognitive impairment, function statues (i.e., unable to complete or initiate a task), environmental stimuli-or social isolation, and emotional states such as anxiety-inability to express needs. Anxiety is believed to be related to general fearfulness, fear of specific object or event, restlessness, pacing, or worrying over insignificant matters. Inappropriate behaviors are frequently attention-seeking; therefore it is important to give attention regardless of behavior.

Anticipatory Set:

Today we will explore the different types of interventions or strategies for managing difficult behavior during activities of daily living such as toilet, bathing, and eating/nutritional needs. These topics are important when working with individuals with dementia because they greatly influence the quantity and quality of life.

- The "ABCs" of behavior included Antecedent event (triggering event; what happens before the behavior); the Behavior itself; and the Consequences of the behavior.
- Six steps of Behavior Management include:
    - Define: Observe the problem (what, when, how, where, who)-describe the action
    - Analyze the ABC's (e.g., Did anyone or anything trigger the event? How did others react?)
    - What happened after the behavior? How did others react?
    - Plan for intervention
    - Implement
    - Evaluate and modify

Difficult behaviors can be a cry for attention as well as an effort to communicate various feelings such as anxiety and fear. Thoroughly evaluating the situation surrounding the difficult behavior can greatly assist in deciphering the appropriate intervention.

SHARE THE OBJECTIVE: During this meeting we will be discussing the following:

- **Managing difficult behaviors**
- **Difficult behavior de-escalation strategies**
- **Aggression**
- **Wandering**
- **Five basic goals of care**
- **Caregiving basic strategies and interventions**
- **Difficult behaviors and nutrition**
- **Consumer-directed care and the bathing experience**

Input: **Managing Difficult Behaviors**

Six steps of behavior management

1. Define: Observe the problem (what, when, how, where, who) - describe the action.
2. Analyze the ABC's: Did anyone or anything trigger the event? Look for clues.
3. What happened after the behavior? How did others react?
4. Plan for intervention
5. Implement
6. Evaluate and modify

ABC's of behavior

a Triggering event (**a**ntecedent- what happens before the behavior)
b The **b**ehavior itself
c The **c**onsequence of the behavior

Treatment options

- Change the antecedent
- Change the consequence
- Change both

- First, rule out other causes of inappropriate behavior (i.e. pain, medication side effects or interactions, sensory deficits).
    - Example: Staff reports a 99 year old male is delirious and suddenly confused. I ask the consumer what he had for breakfast and he states he does not want to go to bed. I observe that Mr. P. does not have his eye glasses on nor his hearing aids in place. After his glasses and hearing aids are on, Mr. P. responds appropriately to all questions.

Strengthening appropriate behavior

- Provide positive reinforcement/interaction whenever/wherever possible.
- Maximize reinforcers rather than wait until consumer is obviously distressed.
- Escape motivated behavior- change aversion quality of the situation
    - Example: Mr. B & Mr. S. did not get along and fought at mealtime each day. Mr. B. tried to hit Mr. S. with his cane. The caregiver requested medication to

calm the 2 consumers or wanted them to take their meals in their rooms. I suggested the 2 men be placed at different tables at opposite ends of the dining room. There was no further problem.

- Terminate the situation they perceive as threatening
    - I.e., Bed bath instead of tub bath.
- Use embedding technique by introducing pleasant stimuli (handholding, photograph, song) into the perceived threatening situation.

4 R's (repeating, redirection, reinforcement, and reassuring)

Input: **Difficult Behavior De-escalation Strategies**

- Accepting instead of contradicting a confused elderly person's reality- search for clue words.
    - Example: Mr. H. states that his wife is coming to visit tomorrow. You know that his wife has been deceased for 5 years. How do you handle this? It is best to validate his feelings of joy by saying "I'll bet you're looking forward to her visit." Telling the consumer that his wife is dead serves no purpose. He will not remember this later and he will have to grieve her loss all over again in the present.
- Validating feelings of confusion, anger, etc.
    - Example: Mr. N. was very agitated and angry. He stated he waited 1 hour for the nurse to help him off the toilet. He said she was lazy and irresponsible. I validated Mr. N.'s feeling of anger, frustration, and abandonment. I promised him we would try to do better and apologized for the lack of care and attention. His agitation and anger abated quickly.
- Use a cooling off period.
- Distraction to diffuse catastrophic reactions.
    - Example: Mr. D. and Mr. B. were in the hallway shouting, swearing, and arguing with each other. I stood between them and in a calm voice, reminded them that we must treat each other with kindness and respect. Knowing that Mr. B. liked music and liked to sing, I suggested that we sing a song. I started singing, Mr. B. joined right in and in a few moments, so did Mr. D. Both seemed very mellow and happy after we sang a few songs.
- Do one task at a time.
- Realistic expectations.
    - Example: Mrs. K's daughter, Rose, is her caregiver at home. Rose expresses stress and frustration regarding her mother's eating habits. I asked if she had to feed her mother and she replied "no." I asked if she had to sit and keep her mother company while she eats, and she replied "no, I do my housework." I asked if her mother made a mess and spilled food on her clothes, the table, and floor and she replied "no." I then asked what caused her to be so stressed about the mealtime. She stated that her mother took 60-90 minutes to eat her meal. I pointed out that her mother was independent, tidy, and entertained herself at mealtime and this was remarkable for a 90 year old with dementia.

Rose had unrealistic expectations regarding her mother and seemed satisfied with her mother's mealtime habits after our discussion.

- Humor/diversion.
- Avoid blocks to communication.

Input: **Aggression**

- Cognitive impairment: cannot understand/process information
- Functional Status: unable to complete or initiate a task
- Environmental Stimuli: too much or too little
- Emotional Status (e.g., anxiety/fear): arising from inability to express needs.

Impact of aggressive/difficult behavior on consumer

- Alienation from staff/family
- Stress
- Decreased quality of care
- Social isolation
- Unmet needs

Input: **Wandering**

Wandering behavior

- Possible etiologies for wandering:
    - Acting out prior life experiences.
    - Stress reduction.
    - Fear.
    - Explore new environment.
    - Satisfy urges/needs (hunger, thirst, and toileting).
    - Boredom, restlessness.
- Interventions for wandering:
    - Daily exercise.
    - Attempt to pinpoint cause.
    - Is wandering a problem? For whom?
    - Safety for wandering person
        - Photo/ID
        - Fence/hedge
        - Locks/bells on door, nightlights
    - Reassurance

Input: **Five Basic Goals of Care**

1. Consumer to feel safe – feel protected, observe body language, facial expressions.

- Example: Mr. W. imagines that there is a miniature sumo wrestler on his shoulder. He has an ongoing pleasant conversation with this imagined person. He seems to be happy to have his friend with him at all times. The caregiver is concerned about this hallucination and requests antipsychotic medication for the consumer. Since the hallucination is non-threatening, the consumer is not fearful or upset, but rather soothed by his little imaginary friend, no medication should be administered.

2. Consumer to feel physically comfortable.
3. Minimize stress/environmental distractions.
4. Experience pleasure – sexual expression.
5. Experience a sense of control – dignity, freedom, enhance functional abilities.
    - Example: Mr. J. liked to put his clothes on inside out over his PJ's for breakfast each morning. The caregiver argued with him each AM and tried to persuade him to remove his PJ's and put his clothes on correctly. PJ became agitated and would yell and try to hit the staff. Nursing requested an antipsychotic med or mood stabilizer so Mr. J. would be more cooperative. I suggested they permit him to dress as he liked and there were no further outbursts or unmanageable behaviors.

Enhancing functional abilities

- Build up handles on utensils.
- Non-breakable, no-slip dishes, no-spill cups, straws.
- Velcro and snaps.
- Handrails.
- Non-skid floors.
- Hearing aids/glasses.
- Walker/physical therapy.

Input: **Caregiving Strategies and Basic Interventions**

- Regular routine/keep it simple/avoid change
- Opportunity to participate/make choices – ask close ended questions
- Focus on assets – use remaining abilities – use short statements
- Be flexible/alter situations
- Don't reason with consumer who can no longer think logically
    - Example: Mr. C. was a retired Army officer who had been in the war. When he was fearful or stressed, he would crawl under his bed, which he thought was a foxhole. The caregiver tried to cajole him out and pull him out to no avail. I crawled under the bed with him and talked about the war. He also thought I was a General. I enlisted his help to crawl out of the foxhole and help me with the troops. He very willingly obliged. We used this technique successfully each time we found him under the bed.
- Approach slowly from the front in a friendly relaxed manner
- Rest between stimulating activities

- Sensory stimulation such as:
    - Aromatherapy
    - Massage
    - Pet therapy
    - Music therapy
    - Audio/visual tapes of family
- Recreational interventions
    - Exercise movement program
    - Walking program
    - Sorting games
    - Music/singing

Input: **Difficult Behaviors and Nutrition**

Nutritional concerns/malnutrition

- Eating patterns in stages of Alzheimer's
    - Early Stage:
        - Changes in preferences
        - Forgot to shop
    - Middle Stage:
        - Agnosia, dyspraxia, food hoarding in mouth, failure to chew sufficiently with risk of choking, not finish meal, food gorging, forget he/she is hungry, distractibility, reduced attention and concentration
    - End Stage:
        - Eating slower, food remains in mouth longer, refuse to open mouth, impaired, delayed pharyngeal stage, swallow function, turning head away, refusing to swallow, leaving mouth open.
- Who is at risk for malnutrition?
    - 40-60% of hospitalized older adults
    - 40-85% of nursing home residents
    - 20-60% of home care consumers
- Triggers for malnutrition
    - Serum Albumin less than 3.4
    - Serum Cholesterol less than 160
    - Hemoglobin less than 12
- Scales for evaluating malnutrition risk in the elderly

Item	**1 point**	**2 points**
Sadness (GDS)	10-14	>15
Cholesterol	<160	
Albumin	3.5-4.0	<3.5
Loss of Weight	1 kg in 6 mo.	3 kg in 1 month
Eating problem	Consumer needs assist	

Shop and food	Consumer needs assist	

- Total scores > 3 indicate consumer at risk
    - *Morley Journal of the American Geriatric Society, 1991; 39 (1139-1140)*
- Treatable causes of malnutrition (Meals On Wheels)
    - **M**edication
    - **E**motional problems (depression)
    - **A**norexia; alcoholism
    - **L**ate-life paranoia
    - **S**wallowing
    - **O**ral factors
    - **N**o money
    - **W**andering (other dementia related behavior)
    - **H**yperthyroidism, hypoparathyroid, hypoadrenal
    - **E**nteric problems (malabsorption)
    - **E**ating problems (inability to feed oneself)
    - **L**ow-salt, low cholesterol diets
    - **S**tones
    - *From Anorexia in the elderly: Annals of LTC 2004*
- Poor nutrition may result in:
    - Decreased muscle strength
    - Poor wound healing
    - Increased pressure ulcers
    - Increased risk of infection
    - Increased post-operative complications
- Physiological changes that contribute to weight loss:
    - AD results in changes in the brain which result in loss of appetite and sense of smell
    - Feeling of fullness may occur due to lack of relaxation of the stomach
    - Liquid caloric supplement may improve nutrition without causing a feeling of fullness
- Fluids
    - AD consumers cannot regulate fluid intake based on thirst. Therefore, they are at increased risk for dehydration.
    - If refuse fluids, give foods high with H20 concentration
        - Applesauce
        - Jell-O
        - Popsicle
        - Ice cream
        - Soups
    - Oral liquid supplements between meals to boost caloric requirements do not alter the number of calories consumed at a meal if given 60 min before the meal
- Hurdles to promoting optimal nutrition

    - Distraction and wandering
    - Difficulty swallowing/chewing
    - Restrictive diet
    - Medications
    - Food recognition
    - Spatial orientation
    - Individual biorhythm
    - Lack of staff
    - Loss of hunger
    - Co-morbidities
    - Educational needs
    - External factors
- To produce improved eating in demented consumers, one must make changes in the environment, caregiving, or consumer
    - Environmental changes:
        - Prepare food close to serving area
        - Therapeutic dinnerware
        - Good lighting/diffuse lighting
        - Avoid clutter/distractions
        - Music
        - Colorful dishes/glasses- red/blue
    - Caregiving changes:
        - Small frequent meals/1 course at a time
        - Finger foods, recognizable foods
        - Sit up/feet on floor/chin tuck position
        - Remain upright for 30-60 min after meal
        - Sit and feed at consumer's eye-level/make eye contact
        - Stroke throat to encourage swallowing
        - Larger meal breakfast/lunch
        - Frequent verbal cueing of desired behavior
        - Vitamin/mineral supplement
        - Off the clock
        - Observe ritual-hand washing/blessing
    - Changes in the consumer:
        - Relearn eating behavior- hand over hand guide
        - Dentures in place, mouth care
        - Dental soft diet
        - Wear glasses/hearing aids
        - Exercise

Interventions to Improve Mealtime Experiences

- Staff consistency
- Staff to walk around and observe who needs help
- Schedule staff breaks and staff meals before/after consumer meals

- Encourage families to visit at mealtime
- Encourage families to bring the consumer's favorite foods
- Administer analgesics and antiemetics before meals
- Focus on quality vs. quantity – caregiver impatience
- Offer choices
- Increase accessibility to food

Ethical Issues Regarding Difficult Behaviors and ADLs

- Right to refuse food if dislikes and right to insist on food they do like even if it presents choking risks
- Quality of life vs. preservation of life- Consumer's preference must be considered (i.e. as outlined in informed consent or Advanced Directives)
- PEG (stomach feeding) tube- Risks, lack of benefits, no decrease in aspiration, pressure ulcers, enhanced survival
- Quality of life decreases as nutritional risk increases with resulting risk for decreased body weight, pressure ulcers, and infection
- Promote self feeding or enhanced assisted feeding
- No food restrictions- any food better than no food
- Add butter and cream
- Suitable consistency
- Nutritional drinks to augment diet NOT replace

Input: **Consumer-directed Care and the Bathing Experience**

Goal of consumer-directed care

- Goals of care must always include:
    - Providing/increasing consumer quality of life
    - Maximizing consumer satisfaction

The bathing experience: System-directed vs. consumer-directed

- System-directed model
    - Shower room
        - Cold, unfamiliar, large, institutional in appearance, noisy, equipment, uncomfortable bath/shower chair
    - Bathing/shower experience
        - Strip in room, chair/ARJO to tub, breeze on behind, cold, feet dangling, hosed down, submersed in tub
- Consumer-directed model
    - Shower room
        - Pictures on wall, curtains, wallpaper/borders, curtain around tub, colorful paint, music
    - Bathing/shower experience
        - Pre-organized equipment, pre-fill tub, undress consumer in shower room, uncover limited area using towel or clothes around shoulders/lap/legs, padded shower chair/food rest

        - Takes 1.6 minutes longer for new in-shower experience
        - Win/win outcome for staff/resident
- In bed bathing experience
    - No-rinse bath, improves skin condition
    - If good AM/PM incontinence care, once weekly bathing is adequate
    - Alter/adjust “must bathe twice weekly” attitude
    - Nothing in current regulations to prevent change
    - Takes 3.3 minutes longer for no rinse bed bathing
    - Win/win outcome for staff/resident

Important considerations for consumer-centered care

- Consistent staff assignments
    - Encourage the development of meaningful relationships
    - Promote continuity of care
    - Facilitates ownership for improved care and outcomes
    - Prevents staff from feeling like an interchangeable part
- Relationship-centered care avoids making staff feel like “just an aide”
    - Validate staff and consumers

Consumer-centered care plans

- Presents problem, goal, and intervention from consumer’s perspective
- Decreases risk of prejudicing consumer or making mistaken inferences

Managing Difficult Behaviors associated with ADLs in Patients with Dementia

ADRC Framework

- Intake… the *initial conversation*
- Information and Referral (I & R)
- Assistance and Advocacy (A & A)
  - Options Counseling
- Eligibility and Access (E & A)
  - Benefits Counseling

Trainees

- ADRC specialists
  - Intake workers
  - Advocates
  - Other ADRC site staff
- Aging and Disability Services Division (ADSD) staff

Aging and Disability Resource Center (ADRC)

Single Entry Point Service System

- Multiple Access Points
- Simplify Access to Services and Supports
- Reduce Redundancies
- Screening and Assessment
- Supports Independence and Choice in the Community

Learning Objectives

Become familiar with:

- Some difficult behaviors one could experience when interacting with a person with dementia
  - E.g., aggression, screaming, wandering, refusal to eat/drink/bathe
- Ways to assist consumers without discouraging them and exacerbating the difficult behaviors
- Factors that can result from, and contribute, to difficult behaviors
  - E.g., malnutrition, hygiene issues

Learning Objectives

Become familiar with:

- Some common dementia-related difficult behaviors associated with activities of daily living (ADL)
  - Wandering
  - Screaming/Aggression
  - Not eating/refusing food → malnutrition
  - No drinking/refusing water → dehydration
  - Not bathing/refusing baths → poor hygiene

Outcomes for You

- This lesson will help you:
  - Improve your general understanding of some day-to-day effects of dementia
  - Understand how to mitigate difficult behaviors should they arise in your presence
    - And how to advise consumers' caregivers to do the same

Outcomes for Your Consumers

- To the extent that you apply the ideas herein, this lesson can help your consumer:
  - De-escalate their difficult behaviors and become more cooperative with your and their caregiver
  - Maintain dignity and autonomy even when facing dementia

Three Basic Goals of Care

1. Address consumers' care needs
2. Consumer feels safe and protected
3. Consumer experiences a sense of control, dignity, and freedom

- **But there are some difficult behaviors one could experience when interacting with a person with dementia**

Difficult Behaviors

- E.g., aggression, screaming, wandering
- Occurs in over 50% of dementia patients
- Often associated with ADL
  - Refusing to eat or bathe and becoming belligerent

Impacts of Difficult Behaviors on Consumers

- Alienation from staff/family
- Stress
- Decreased quality of care
- Social isolation
- Unmet needs

ABCs of Behavior

- There are ways to assist consumers without discouraging them
  - Discouragement can exacerbate difficult behaviors
    - **A**ntecedent - Triggering event (antecedent - what happens before the behavior)
    - **B**ehavior - The behavior itself
    - **C**onsequence - The consequence of the behavior

Basic Strategy for Behavior Management

- Change antecedent
- Change consequence
- Change both

6 Steps of Behavior Management

1. Define
   - Observe the problem and define it
2. Analyze the ABC's
   - Did anyone or any thing trigger the event?
3. What happened after the behavior?
   - How did others react?
4. Plan for intervention
5. Implement
6. Evaluate and modify

Before You Begin

- Rule out other causes of difficult behavior
  - Pain (UTI, fracture)
  - Medications side effects or interactions
  - Sensory deficits

Reinforce Positive Behaviors

- Reinforcement
  - Consistent- not contingent upon occurrence of specific behavior
  - E.g., Give verbally soothing statements throughout
- Maximize reinforcers rather than wait until patient is obviously distressed

Redirect the Situation

- Change aversion quality of situation.
  - Redirect from the situation they perceive as threatening
    - Hallucinations/delusions
  - Redirect to a situation that is less threatening to them
- This tends to calm consumers displaying difficult behaviors

2 Rules

1. Don't argue!
2. Don't say "no" if you can avoid it

- Arguing with and contradicting consumers' wishes can lead to confrontation and escalation of problem behavior

Excessive Anger or Screaming

- Avoid aversive situation
  - When alone, increase sensory stimuli in environment
  - When in busy setting, escape excessive sensory stimuli
- Theories about aggression

De-escalation Strategies for Anger and Screaming

- Accepting instead of contradicting a confused elderly person's reality – search for clue words
- Validating feelings of confusion, anger, etc.
- Using a cooling off period
- Distraction to diffuse catastrophic reactions
- Do 1 task at a time
- Realistic expectations
- Humor/diversion

De-escalation Strategies for Anger and Screaming

- Avoid blocks to communication
- Regular routine/keep it simple/avoid change
- Opportunity to participate/make choices – ask close ended questions
- Focus on assets - use remaining abilities – use short statements
- Be flexible/alter situations
- Do not reason with patient - can no longer think logically

Wandering

- Possible causes:
  - Acting out prior life experiences
  - Stress reduction
  - Fear
  - Explore new environment
  - Satisfy urges/needs (hunger, thirst, bathroom)
  - Boredom, restlessness

Basic Strategies and Interventions for Wandering

- Recreational interventions
  - Exercise movement program
  - Walking program
  - Sorting games
  - Music/singing
- If wandering persists, safety is most important
  - Photo ID
  - Fence/hedge
  - Locks/bells on doors, nightlights

Other Difficult Behaviors

- Other difficult behaviors include:
  - Refusal to eat
  - Refusal to drink
  - Refusal to bathe
- Without proper intervention, this can lead to:
  - Malnutrition
  - Dehydration
  - Poor hygiene

These can also further exacerbate other difficult behaviors

Weight Loss: Causes, Concerns, & Interventions

At risk for malnutrition:

- 40-60% hospitalized older adults
- 40-85% nursing home residents
- 20-60% home care patients

Poor nutrition *may be a result of*:

- Taste and smell dysfunctions
  - Early satiation
  - Liquid caloric supplement

Malnutrition and Aging

Poor nutrition *may result in*:

- Difficult behaviors
- Decreased muscle strength
- Increased post-operative complications
- Poor wound healing and/or increased pressure ulcers
  - Increased risk of infection

Nutrition Interventions

- Eating environment
- Meal time
- Food type
- Eating position
- Caregiver assistance
- Observe eating rituals
- Appetite stimulants

Eating Patterns and Dementia

- Early stages
  - Behavior changes in food preferences
  - Forget to shop
- Middle Stages
  - Agnosia, dyspraxia, food hoarding in mouth, failure to chew sufficiently with risk of choking, not finish meal, food gorging, forget he/she is hungry, distractibility, reduced attention and concentration
- End Stages
  - Eating slower, food remains in mouth longer, refuse to open mouth, impaired, delayed pharyngeal stage swallow function, turning head away, refusing to swallow, leaving mouth open

Hydration

- Many dementia patients cannot regulate fluid intake based on thirst.
- Interventions
  - Give foods with high H2O concentration
    - Applesauce, Jell-o, popsicle, ice cream, soups

Hygiene and Aging

- Refusal to bathe is another difficult behavior
  - Poor hygiene is unhealthy
  - Poor hygiene leads to other difficult behaviors
  - One reason a consumer may refuse to bathe is because the experience is uncomfortable
- System-directed bathing experience
- Consumer-directed bathing experience
  - Many options
  - Weighing the options… depends on consumer preference
  - Advocating for consumer-directed care

System-directed Bathing Experience

Problem	Goal	Intervention/ Plan
Combative behavior during bathing	No aggression during undressing or bathing	Undress resident in bathroom

Consumer-directed Bathing Experience

Problem	Goal	Intervention
I need to be clothed and warm going to the shower room	I need to feel safe during bathing	Undress me in the bathroom and keep me warm/covered.

Difficult Behaviors and Ethical Issues

- Autonomy
- Quality of life vs. preservation of life
- Promote self feeding or enhance assisted feeding
- Barriers to improved feeding in community nursing homes

Goal-setting & Consumer Direction

- Consumer-directed vs. system-directed
- Goals of care must always be directed towards providing/increasing quality of life
- It is okay to question "the system" if this leads to greater consumer satisfaction
  - Use your best judgment

Summary

- There are various interventions for difficult behaviors, varying by specific behavior
- In general, intervene in a way that:
  - Maximizes consumer autonomy
  - Preserves consumer dignity
  - Honors consumer direction
- Reinforce positive behaviors

Summary

- Difficult behaviors are relatively common among people with dementia
  - Consequences for consumer and anyone who interacts with him/her
- Examples of difficult behaviors include:
  - Anger/screaming
  - Wandering
  - Refusing food/water/hygiene

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Attachment #11

University of Nevada, Reno
Statewide • Worldwide

Education, Research, and Community Outreach in Dementia Care at the University of Nevada, Reno Department of Psychology

Jane E. Fisher, Ph.D.
Professor
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Department of Psychology/298
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775-682-8705

Background: I am a professor of clinical psychology at the University of Nevada, Reno (UNR), specializing in geropsychology. My research program is focused on aging and behavioral health and the development of interventions to promote behavioral health in elderly persons with chronic illnesses and family caregivers. For the past several years I have been studying methods for improving the care and quality of life of elderly persons with cognitive disorders and for preventing stress related problems and promoting quality of life in their family caregivers. In addition, I am involved in the training of doctoral level psychologists through the Clinical Psychology Program at UNR and in the education of undergraduate students completing coursework in the psychology of aging and field experience in geropsychology.

Nationally and in Nevada there is a critical shortage of professionals trained in evidence based geriatric behavioral healthcare. Only approximately 5% of clinical psychologists have received training in geriatric behavioral healthcare, and even fewer receive *any* training in evidence based dementia care [1](Council of Professional Geropsychology Training Programs, 2011).

Graduate Instruction in Dementia Care at UNR. The doctoral program in Clinical Psychology at the University of Nevada, Reno is accredited by the American Psychological Association and is a charter member of the Academy of Clinical Science. Enrollment in the Clinical Psychology Program is approximately 50 students at any point in time.

Within the Clinical Psychology Program at UNR:

[1]Council of Professional Geropsychology Training Programs (2011). *Pikes Peak Model for Training in Professional Geropsychology*. Available at http://www.copgtp.org/uploads/documents/Geropsychology-competencies.pdf).

- 100% of our students complete a required course on evidence based geriatric behavioral healthcare
- 20% elect to receive practicum training in evidence based behavioral healthcare for older adults with dementia and family caregivers, and approximately
- 10% are specializing in clinical gerontology and conducting research on the behavioral health of persons with dementia and their family caregivers
- Approximately 25% of our students remain in Nevada after competing the doctorate in clinical psychology

Practicum training in evidence based behavioral healthcare of persons with dementia and their family caregivers is provided through the UNR *Nevada Caregiver Support Center* on the UNR campus. The UNR Nevada Caregiver Support Center is funded by grants from the Nevada Division of Aging Services and the National Institute on Justice and donations. In 2008 the UNR Nevada Caregiver Support Center was designated a *Program Champion* and described as a "national model of progressive dementia care" by the U.S. Administration on Aging.

Clinical psychology practicum students working at the *Nevada Caregiver Support Center* collaborate with healthcare and social service providers in agencies across northern Nevada. The doctoral students' clinical activities at the Center are guided by empirical research, i.e., assessment and treatment strategies are evidence based. In turn, their clinical experiences with patients and their family caregivers informs the research questions and problems the students pursue during their tenure in the doctoral program.

Community Outreach. Through their work at the *Nevada Caregiver Support Center* doctoral students in the UNR Clinical Psychology Program are providing a variety of behavioral health services to Nevadans with cognitive disorders and their family caregivers including:

- Home based services
- Rural caregiver outreach services
- Individual and family caregiver coaching
- Problem-solving focused support groups
- Spanish language services
- 24 hour toll-free Caregiver Coaching Helpline
- Caregiver classes in evidence based dementia care
- Training in restraint-free behavioral care
- Client advocacy
- Respite services

In addition, doctoral students within the Clinical Psychology Program specializing in geropsychology provide training in evidence based geriatric behavioral healthcare to professionals across Nevada, the U.S., and Canada.

Undergraduate Instruction in Dementia Care: At the undergraduate level students have opportunities to learn about cognitive disorders and family caregiving through coursework and field experiences. The Psychology of Aging course at UNR has an annual enrollment of approximately 220 - 250 students. Enrollment in the course has increased by over 400% in the past 10 years. A significant portion of the course is

devoted to normal and pathological cognitive aging and the continuum of care options for disabled elderly persons. In addition, 10-30 undergraduate students (annually) complete a field experience course in geropsychology. Geropsychology field experience students participate in a companionship program for older adults with dementia administered through the *Nevada Caregiver Support Center*. The majority of the geropsychology field experience students are pursuing careers in geriatric healthcare or social services. Through the geropsychology field experience course students receive instruction in factors that affect the behavioral health of older adults with dementia and training in evidence based methods of communicating with older adults with dementia. When working with elderly clients the undergraduate students are directly observed and supervised by doctoral students working as Caregiver Coaches at the Nevada Caregiver Support Center.

Below is a sample of recent scholarly activities of doctoral students studying within the Clinical Geropsychology Laboratory at the University of Nevada, Reno:

Recent Student Co-Authored Publications on Dementia Care (student authors are in bold):

Garrison-Diehn, C., Rummel, C., & Fisher, J.E. (in press). A contextual approach to dementia care. In: W. O'Donohue & S. Lilienfeld (Eds.) *Case studies in clinical science*. New York, NY: John Wiley & Sons.

Drossel, C., Fisher, J.E., & **Mercer, V**. (2011). A DBT skills training group for caregivers of persons with dementia. *Behavior Therapy, 42* (1), 109-119.

Yury, C., Fisher, J.E., Antonuccio, D.O., Valenstein, M., & Matuszak, J. (2009). Piling on in the absence of evidence: A meta-analysis of antidepressant augmentation. *Ethical Human Psychology and Psychiatry, 11*(3), 171-182.

Fisher, J.E., **Drossel, C., Ferguson, K., Cherup, S., & Sylvester, M.** (2008). Restraint free care of persons with dementia. In: D.Gallagher-Thompson, A. Steffen & L.W. Thompson (Eds.). *Handbook of behavioral and cognitive therapies with older adults*, pp. 200-218. New York: Springer.

Gentry, R.A. & Fisher, J.E. (2007). The effects of listener repair responses on the conversational speech of persons with Alzheimer's disease. *Clinical Gerontologist. 31*, 77-97.

Yury, C. & Fisher, J.E. (2007). Prevention of excess disability in an elderly person with Alzheimer's disease. *Clinical Case Studies, 6*(4), 295-306.

Yury, C., & Fisher, J.E. (2007). Meta-analysis of the effectiveness of atypical antipsychotics for the treatment of behavioral problems in persons with dementia. *Psychotherapy and Psychosomatics, 76*, 213-218.

Fisher, J.E., **Drossel, C. Yury, C., & Cherup, S.** (2007). A contextual model of restraint free care for persons with dementia. In P. Sturmey (Ed), *The handbook of functional analysis and clinical psychology*. New York: Elsevier.

Recent Doctoral Dissertations and Masters Theses on Dementia Care conducted within the UNR Clinical Geropsychology Laboratory:

"Examining the Relationship between Caregiver Empathy and Dyadic Outcomes: An Exploratory Conceptual Analysis of Dementia Care", Author: Christina Garrison-Diehn, M.A., B.C.B.A. (in progress).

"*Improving the Detection of Excess Disability in Older Adults with Alzheimer's Disease*". Author: Casey Catlin (in progress).

"*Positive Coping Behaviors within Hispanic Caregiving Families*", Author: Cyndy Soto (in progress)

"*Promoting Treatment Utility in the Assessment of Families involved in Elder Abuse*". Author: Katherine Wainwright (in progress)

"*Quality of Life Judgments and their Impact on Dementia Care Decisions*", Author: Clair Rummel, Ph.D. (Completed May, 2012).

"*Program Evaluation of a Statewide Training Program in Restraint Free Dementia Care*". Author: Christina Garrison-Diehn, M.A., BCBA (Completed August, 2012)

"*Helping Those who Cannot Help Themselves: Enhancing Collaborations in Dementia Family Care Through Individualized Assessment and Training*" Claudia Drossel, Ph.D. (Completed August, 2011).

*"Facilitating Communication in Older Adults with Alzheimer's Disease: An Idiographic Approac*h to Communication Education and Training Program with Family Caregivers", Author: Ruth Gentry, Ph.D. (Completed May, 2008).

"*A Web-Based Protocol for Training Professional Caregivers of Persons with Dementia*", Author: Kyle Ferguson, Ph.D. (Completed December, 2008).

"Promoting Choice in the Treatment of Depression in Nursing Home Residents" Author: Clair Rummel, M.A. (completed December, 2008)

"The Context of Behavioral Disturbances in Persons with Dementia", Author: Merry Sylvester, M.A. (completed December, 2008).

"*Facilitation of Conversational Speech in Persons with Alzheimer's Disease*", Author: Ruth Gentry, M.A. (Completed May, 2006).

"Examining the Treatment Utility of an Empirically-Based Assessment for Identifying Dementia Caregivers' Skill Repertoire and Quality of the Caregiver-Patient Relationship" Author: Michael Cucciarre, Ph.D. (Completed May 2006)

Our Mission

The **Nevada Caregiver Support Center (NCSC)** of the University of Nevada, Reno promotes excellence in dementia care by emphasizing the quality of life of persons with dementia and their caregivers. Within Nevada, there are over 30,000 seniors who have a memory disorder. Family and professional caregivers often struggle to understand and best help older adults with memory disorders. Because of the potential stress of caregiving, nearly all caregivers can benefit from educational, practical, and emotional support. Consistent emotional support aids caregivers' coping with change. Skilled caregiving improves the communication of family members, reduces conflict and stress, and increases the quality of life of both the caregiver and the older adult with dementia. Learning about dementia and acquiring practical skills are fundamental to effectively coping with dementia-related challenges, so older adults with dementia and their families can have a higher quality of life and stay together in their homes for longer than might otherwise be the case.

For information please call
(775) 784-4335

Nevada Caregiver Support Center (NCSC)

is located in the

Center for Molecular Medicine

on the campus of the

University of Nevada, Reno

(775) 784 - 4335

nevadacaregiver.unr.edu

University of Nevada, Reno

Nevada Caregiver Support Center

Dedicated to supporting Nevada's seniors and caregiving families through

Community Outreach
Education
Research

(775) 784 - 4335

The NCSC is funded by:

- Nevada Aging & Disability Services Division
- National Institute on Justice
- Donations

Caregiver Support Services

Caring for persons with memory disorders can be very rewarding, yet, difficult. The NCSC provides caregivers with coaching in best practices in the care of persons with dementia and healthy coping strategies. Family and professional caregivers can also learn about strategies for gently and effectively managing problem behaviors, such as resistance to care, wandering, sleep difficulties, and impairments in self-care. The NCSC's unique individualized Caregiver Coaching program emphasizes continuity of care by assisting caregivers of adults with dementia at any stage in the caretaking journey. Trained Caregiver Coaches provide confidential, individualized coaching and home-based support services 24 hours a day, seven days a week. Call to learn more about our:

- **Caregiver coaching**
- **Caregiver classes**
- **Support groups**

Enhancing Quality of Life for Older Adults with Memory Disorders

Since 2001 the NCSC has been providing support services to older adults with memory disorders residing in private homes and long term care facilities across northern Nevada. Our mission is to promote quality of life for older adults with memory disorders and their families.

For more information please call

775 - 784 - 4335

Restraint-Free Care Initiative

Since 2008 the NCSC has been collaborating with state and private agencies across Nevada to eliminate the use of restraint in the care of older adults with dementia. Today, NCSC staff are providing training in restraint free care in long term care facilities across Nevada.

Generations Companionship Program

In this innovative program UNR students are paired with older adults living in the community to provide companionship and learning opportunities for both students older adults with dementia and students.

Visit our website at:

nevadacaregiver.unr.edu

Attachment #12

Portrait of Nevada's Seniors Summary[1]

The *Portrait of Nevada Seniors* is a study that has been used since 2005 as the foundation and basis for numerous initiatives, public policy and service decisions. Since demographic information received from this ongoing biennial survey has been so timely, it has allowed numerous Nevada agencies, legislative committees and organizations (e.g. Assembly Committee on Health and Human Services) to respond on a timely basis to the actual needs of Nevada's senior population and has allowed for the targeting of the most critical areas. In 2006/2007 survey funding from the Fund for a Healthy Nevada resulted in the legislative committee on senior's interim study. In 2009 the interim study was changed to a statutory interim committee (AB9). Several bills from that committee came from survey issues generated from this study; among them SB 420 *Facilities and Home Care for Senior Citizens* and AB123 "*Improve the Reporting Process & Data Relating to Crimes against Older Persons"*. The needs of today's senior citizens encompass a wide variety of services. With the aging Baby Boomers and the increased longevity of our elders, professionals will be faced with many challenges faced by a population that incorporates 40 to 50 years of "senior citizenship". Understanding those needs will be critical to the quality of life experience of our older citizens of Nevada.

One critical component of the study was to evaluate various aspects of care giving among Nevada's over 50 population. The study shows that nearly 10% of Nevada's over the age of 50 are the primary care giver for a person over the age of 60 (not self). This translates to approximately 89,000 caregivers over the age of 50 taking care of someone over the age of 60 in Nevada. The study also shows that caregivers rate their own mental and physical health lower than non- caregivers do. Whereas caregivers report 6.76 bad physical health days a month non- caregivers report only 5.21 bad physical health days. Likewise, caregivers reported 5.05 bad mental health days a month whereas non- caregivers reported only 3.49. Both of these findings are statistically significant.[2]

The study also indicates that 8% of the 50+ population does not have health insurance; this represents over 71,000 uninsured Nevadans. Further, 85% of those uninsured have been so for 12 months out of the last year and 61% have delayed seeking medical care because of cost. In addition the estimated number of Nevadan's over the age of 50 who are being treated for a mental illness; including Alzheimer's disease is approximately 18,000 individuals.

While these are only a few examples, there are many other variables that can be extrapolated from this study to look further into data as it relates to our aging Nevadan's health and well-being. The study provides a look at the various aspects of growing older in Nevada and allows service providers and policymakers an opportunity to review and revise, if needed, the way they provide assistance to a wide variety of "senior citizens".

---

[1] Gallion, P, & LaHaie, C. (2010). Portrait of Nevada's seniors: A collaborative study. , ().

[2] The relationship between caregiving and both mental and physical health is statistically significant at a Pearson's Chi-Square of .000.

A PORTRAIT OF

NEVADA'S SENIORS

a collaborative study

2010

UNLV Cannon Survey Center
Division of Educational Outreach

University of Nevada
Cooperative Extension

Acknowledgements

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We would like to extend our sincere gratitude to the following individuals for their assistance and continuing support of this study.

Kathy McClain, M.PA.
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This report was made possible by a collaborative partnership between The Cannon Survey Center, University of Nevada, Las Vegas and the University of Nevada Cooperative Extension, University of Nevada, Reno. The purpose of this study is to provide generalizable data on Nevada's aging population for use by Nevada's legislators and state agencies to affect policy and programming. In addition, this data is useful to scholars at Nevada's colleges and universities as a platform for further study or analysis in various fields of aging studies. This project began in 2005 through a grant from The Task Force for a Healthy Nevada.

About the Cannon Survey Center

The Cannon Survey Center at the University of Nevada, Las Vegas, provides services ranging from consulting on specific aspects of survey research to complete implementation of survey research projects.

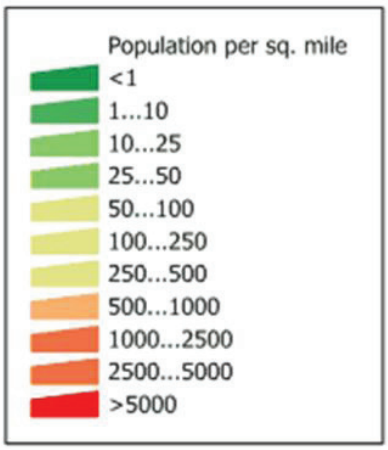
The Cannon Survey Center (CSC), named after the late Howard W. Cannon, is located at the University of Nevada Las Vegas Paradise Campus and has served the University and the State of Nevada since 1977. CSC provides the management, staff, and facilities required to conduct all phases of telephone and mail surveys for local, state, regional, national and/or targeted populations. Sample and study designs are tailored to client needs, and sponsors of privately supported projects are assured of confidentiality.

CSC operates a computer-assisted telephone interviewing (CATI) facility. This system enables precise control over the order of questions and the range of legitimate responses so that invalid or inappropriate responses are avoided. Information is also automatically entered into data files while interviews are being conducted.

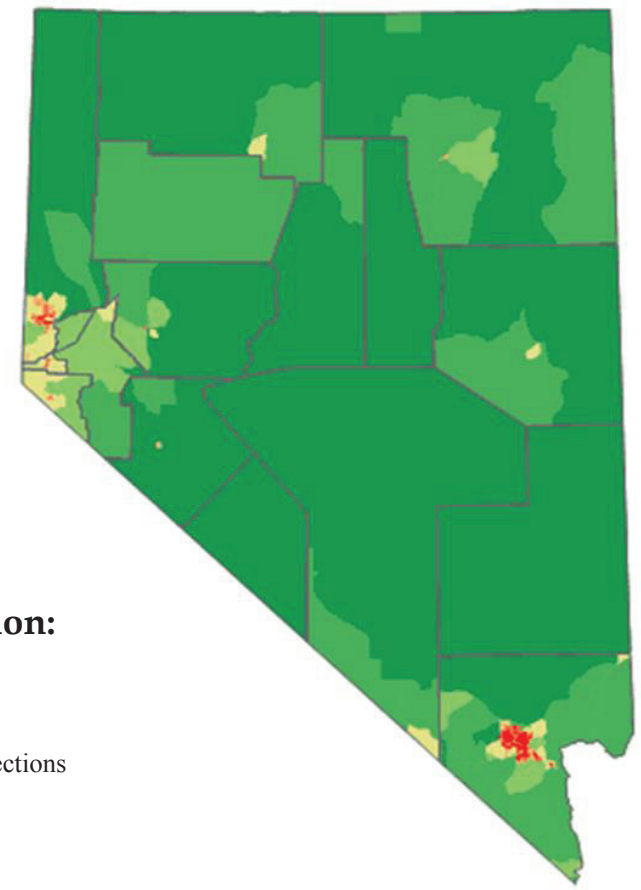
CSC also maintains a system that creates paper surveys whose information can then be scanned into the computer, eliminating manual data entry. In addition to optical mark recognition (e.g., Scantron forms), this system also provides hand print (ICR), machine print (OCR), and barcode recognition. The CSC uses Survey Select to conduct Internet surveys.

The staff is highly trained and dedicated. The consultants, field supervisors, sampling personnel, statistical experts, computer technicians and interviewers are experienced to ensure that professional excellence is maintained for every client.

Nevada over-50 population



Source: U.S. Census Bureau
Census 2000 Summary File 1
population by census tract.



Nevada over-50 population:
894,147
29% of population

Based on 2010 State Demographer Projections

Study hunts for trends among seniors

Demographic studies are a statistician's dream. Numbers and percentages provide the basis for formulating generalities about a segment of society and an opportunity to provide rationale for policymakers to base decisions. One of the least studied population-based segments of Nevada is the population group over the age of 50. The Cannon Survey Center at UNLV was commissioned in 2005 to conduct multiple surveys over several years on a variety of issues affecting our older Nevadans. While it may be a stretch to call a 50-year-old a senior citizen, the long-term goal of the study (with subsequent annual surveys) is to establish trends within the aging population, with a strong focus on the "Baby Boomers" as they progress into the era of "Aging Boomers."

The **long-term goal** of the study (with subsequent annual surveys) is to **establish trends** within the aging population, with a strong **focus on the "Baby Boomers."**

Rarely has there been such a comprehensive study. Findings from the previous reports, along with the results from the 2010 data collection, will provide empirical data on our growing senior (and about to be senior) citizen population. The "Baby Boomers" will continue to impact society as they age in the same way they did as they entered public schools, colleges, the workforce and adulthood as parents and consumers. The "Boomers" have been compared to a bulge in a water hose as they have moved through the years impacting every aspect of society.

In the original study, residents age 50 and older from across the state were asked to respond to between 80 and 100 questions. Due to budget constraints, the length of the 2010 survey was shortened to between 60 and 70 questions. Furthermore, the total sample size was reduced from 2,500 to 1,200. To be eligible to take the phone survey, the respondent had to be at least 50 years old and a resident of Nevada.

Topical areas that affect this segment of the population include but are not limited to: income, housing, transportation, physical health, mental health, health insurance coverage, work/retiree status, caregiving, crime and social well-being. The survey questions covered almost every aspect of aging issues, from "how do you self-rate your health?" to "do you still drive your personal vehicle to get around?" and "have you been a victim of a crime?" The survey included economic data, education levels, current workforce status and income levels. The state-wide survey attempted to balance the results among the two urban areas of the state and the rural areas. Balance among respondents including race/ethnicity, gender and age categories was

an important factor in weighing the results. Cross-tabulating the results of specific responses is an invaluable resource for policymakers, marketers, grant recipients and the general public.

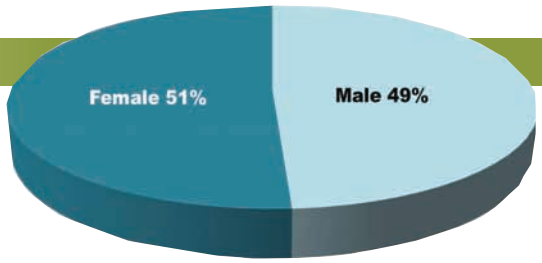
Data have been available since August 2006 and have been used by a variety of academics and legislators, including the seventy-fifth session of the Nevada State Assembly, as a supplemental tool in the decision-making process concerning the future of the State's public programs and services.

The **emerging trends** reported in this commentary provide **statistical verification** to many assumptions held by policymakers and **valuable insight** into some less obvious **"givens" about Nevada's aging society.**

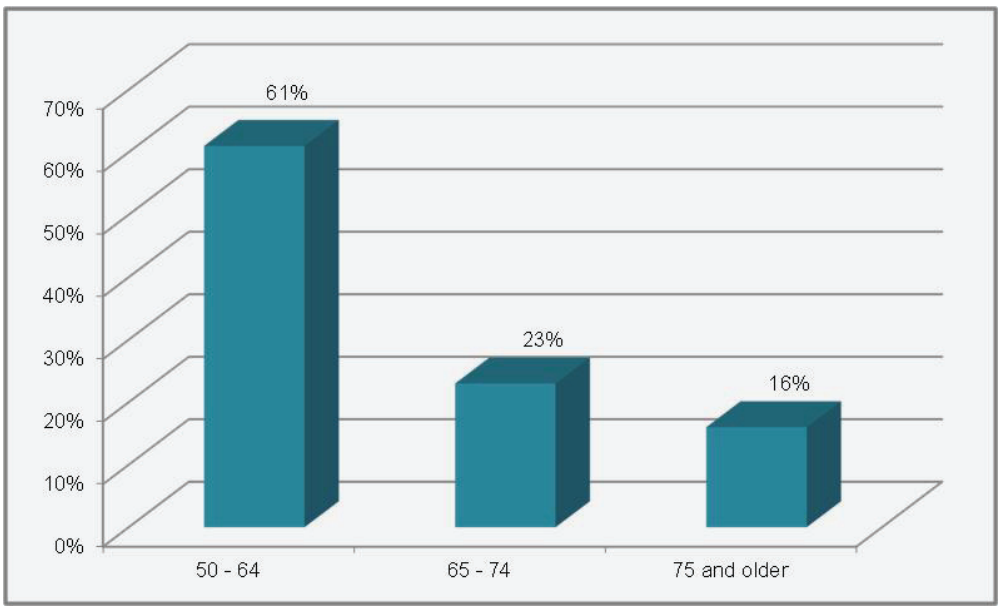
Over the course of the study, over 5,000 Nevada residents have been surveyed. The current report will provide a comprehensive view of the self-reported answers from over 1,200 Nevada residents over the age of 50. The emerging trends reported in this commentary provide statistical verification to many assumptions held by policymakers and valuable insight into some less obvious "givens" about Nevada's aging society. This age group represents nearly 29% of Nevada's total population and must be viewed as a formidable presence in the future of our state. The needs of an aging society are dependent upon the health and well-being of those within the ages surveyed.

While there are many variables that could be extrapolated, the following sections include the highlights from the study. By providing the basic characteristics of the over-50 population, this report will allow interested parties the opportunity to formulate inquiries into more specific conclusions based on varying combinations of the demographics within a particular area of interest. It is our hope that this study will also provide valuable insight and guidance to the many important questions that Nevada's policy makers will have to address as Nevada ages.

GENDER

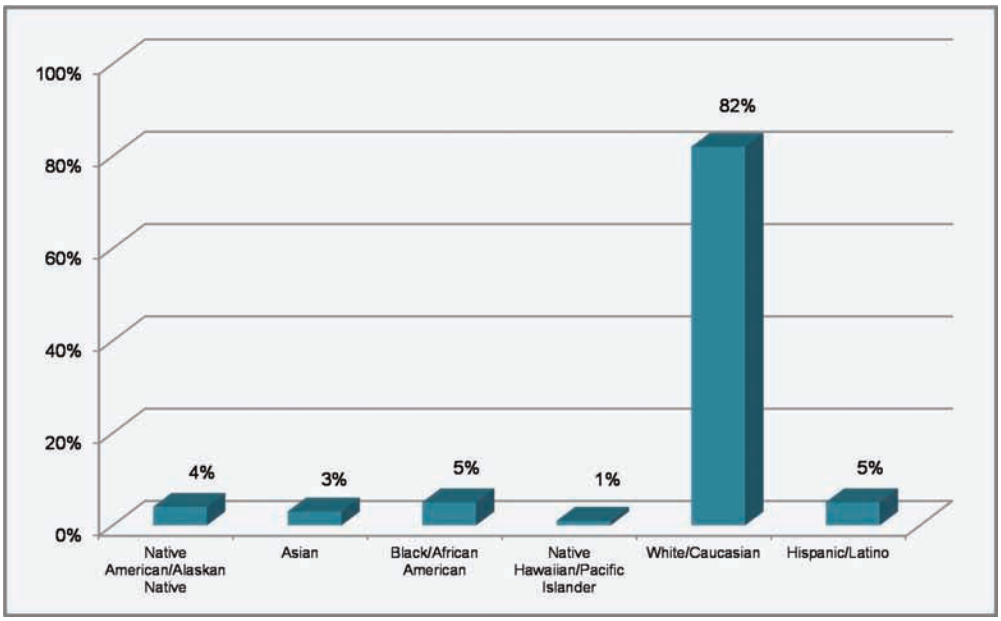


AGE



- The majority (61%) of respondents were between the ages of 50 - 64.
- 23% of respondents fell into the 65 - 74 age group and 16% were 75 or older.
- 39% of subjects are 65 plus and are eligible to receive Medicare.
- The mean age of respondents was 64.
- The median age of respondents was 62, with a mode of age 63.
- The age range for respondents was 50-99.

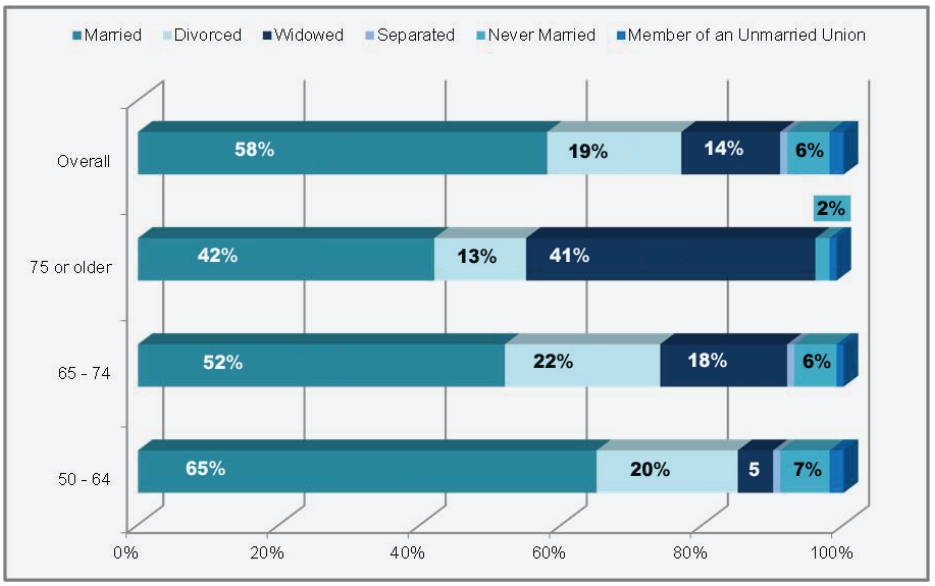
RACE/ETHNICITY



- The vast majority (82%) of respondents identify as White/Caucasian.
- Black/African American respondents and Hispanic respondents each represent 5% of the sample.

MARITAL STATUS

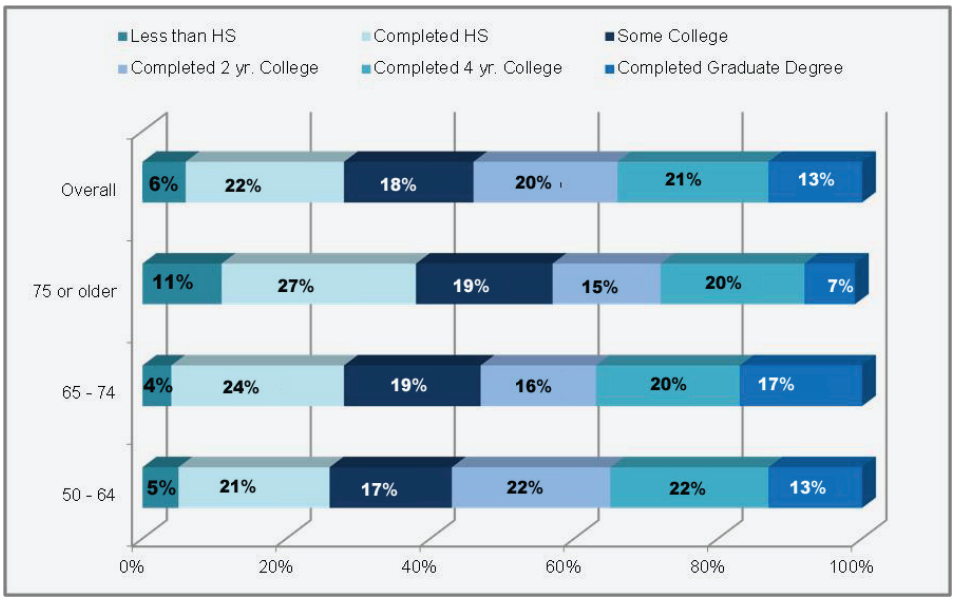
Overall, the majority (58%) of respondents indicated that they are married. This is followed by 19% who are divorced and 14% who are widowed. 6% of respondents report having never been married. Only 1% are separated and 2% are a member of an Unmarried Union. Results are shown in the graph above by age category.



The obvious benefits of living in a two-person household can be seen in the self-reported health statistics and the household income statistics. 41% of married respondents reported that they have a household income of $75,000 or more, as compared to 9% of those divorced, 8% of those widowed, and 12% of those who have never been married. Regarding health, only 18% of married respondents report that their health is fair or poor. This is compared to 30% of divorced respondents, 24% of widowed respondents, 62% of separated respondents, and 29% of those who have never been married who report the same. In contrast, marital status generally has no effect on differences in social interaction. Respondents who are married, divorced or widowed report attending an average of 4 - 5 social events a month. These respondents also go shopping an average of 7 - 8 times a month and go to the casino about 2 - 3 times a month. The only exception comes from those respondents who have never been married. These respondents attend an average of seven social events, go shopping an average of nine times, and go to the casino an average of seven times, each month.

EDUCATION

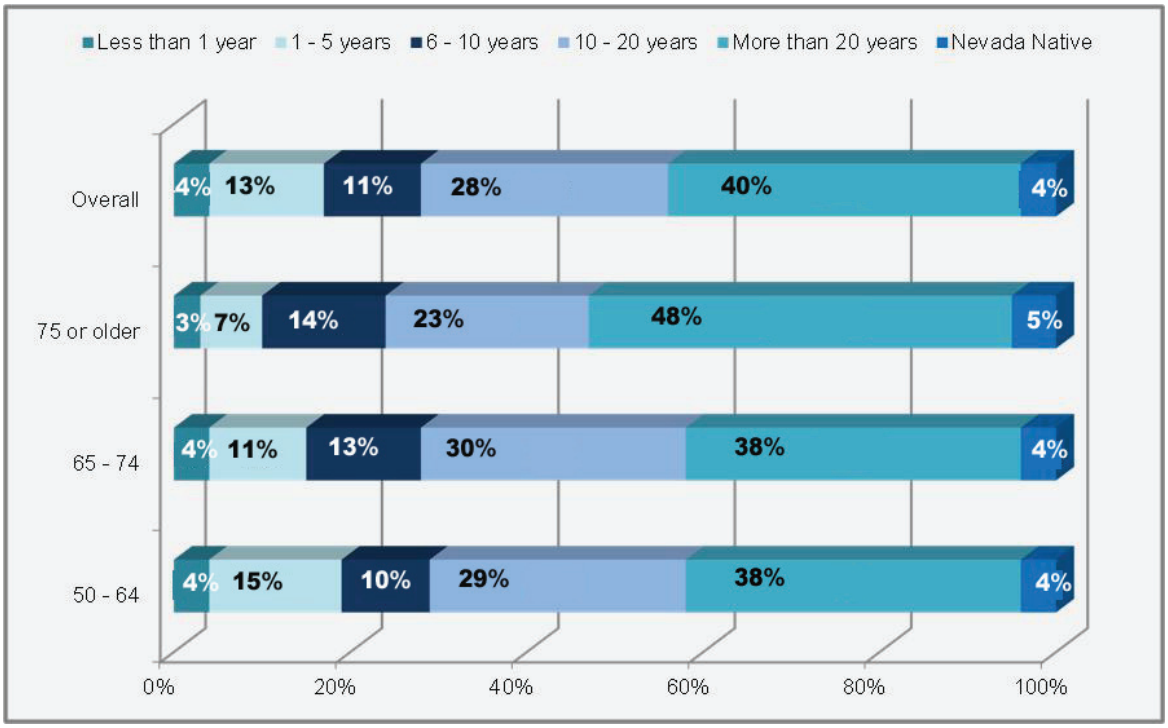
Overall, 6% of respondents have attended some school, but did not graduate from high school. 11% of respondents, age 75 or older, identify with this category. Similarly, 22% of all respondents have completed high school, with 27% of those in the 75 and older age group reporting this level of education.



* Percentages may not add up to 100%; “don’t know” and “refuse” not included.

18% of respondents have attended some college and there is little variation among the age groups. 20% of the overall sample have completed a two-year college or a trade school. Respondents who are 50 - 64 (22%) are much more likely to fall into this category. Overall, 21% of respondents have completed a four-year college. There is little variation among the age groups for this category. Finally, 13% of respondents have earned a graduate degree. 17% of those who are aged 65 - 74 report having earned a graduate degree, as compared to 13% in the 50 - 64 age group and only 7% in the 75 and older age group.

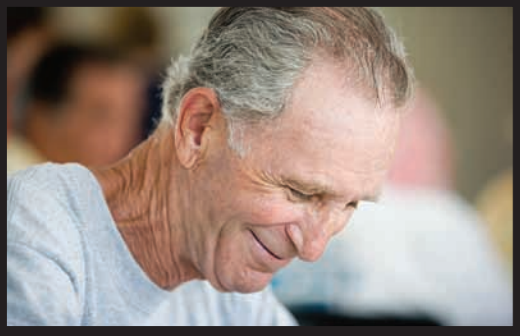
HOW MANY YEARS HAVE YOU LIVED IN NEVADA?



Overall, 40% of seniors in the sample have lived in Nevada for more than 20 years. This is followed by 28% who have lived in Nevada for 10 - 20 years. 13% of respondents have lived in Nevada 1 - 5 years and 11% have lived in Nevada 6 - 10 years. Less than one year of residency and being a native to Nevada are both reported by 4% of respondents.

Nearly half (48%) of respondents who are 75 or older have lived in Nevada for more than 20 years. 38% of respondents in both the 50 - 64 age group and the 65 - 74 age report the same length of residency. Respondents aged 50 - 64 (29%) and 65 - 74 (30%) are nearly equally likely to report living in Nevada for 10 - 20 years, whereas only 23% of respondents age 75 and older report the same.

According to the 2000 Census, Nevada has been the fastest growing state for over two decades. Nevada remained one of the top two states for population growth until 2008, when the growth rate decreased. Furthermore, Nevada's senior population was one of the fastest growing in the nation until 2007 when the growth rate decreased. More information regarding population growth rates will be available after the 2010 Census data is published.



According to the **2000 Census**, Nevada has been the **fastest growing** state for over two decades. Nevada remained **one of the top two states for population growth until 2008** when the growth rate decreased.

MONTHLY SOCIALIZATION

Length of Residency	Social Events	Shopping	Family	Casino	Worship
Less than 1 Year	3.79	6.91	5.30	2.69	1.78
1 - 5 Years	4.36	7.89	5.07	2.95	2.00
6 - 10 Years	4.85	9.35	7.19	3.72	2.77
10 - 20 Years	4.54	8.12	6.42	2.68	2.70
More than 20 Years	4.25	7.80	7.36	2.56	2.60
Nevada Native	3.09	8.60	7.30	0.71	1.66

The table above shows the average number of social activities that respondents participate in each month. The results are categorized by length of residency.

Overall, respondents report attending an average of 4.35 social events each month. Respondents who have lived in Nevada 6 - 10 years have the highest reported average at 4.85. Those living in Nevada 1 - 5 years (4.36) and 10 - 20 years (4.54) also report higher than the overall average. Respondents who have lived in Nevada less than one year (3.79) or more than 20 years (4.25), including Nevada Natives (3.09), report on average lower than the overall sample.

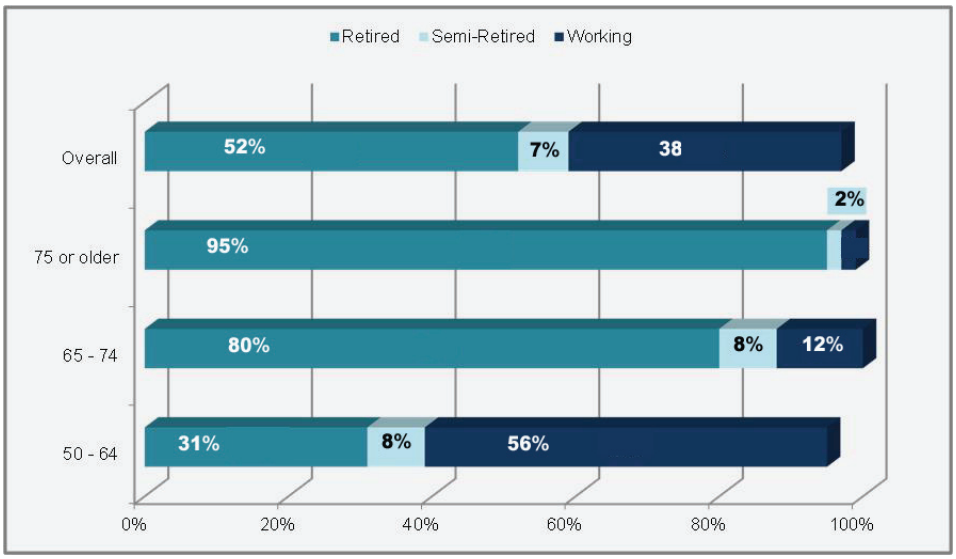
Overall, respondents report going shopping 8.10 times each month. Again, those who have lived in Nevada 6 - 10 years report the highest average at 9.35 each month. Those living in Nevada 10 - 20 years (8.12) and who are native to Nevada (8.60) are also above the overall average. Those respondents reporting lower than the average have lived in Nevada less than one year (6.91), 1 - 5 years (7.89) or more than 20 years (7.80).

Respondents spend time with family an average of 6.70 times per month overall. Respondents living in Nevada more than 20 years (7.36) report the highest average followed by Nevada natives (7.30). Those who have lived in Nevada 6 - 10 years spend an average of 7.19 times per month with family. Respondents who have lived in Nevada 10 - 20 years (6.42) are slightly less likely to spend time with family, whereas those living in Nevada less than one year (5.30) or 1 - 5 years (5.07) are well below the overall average.

Seniors in the sample report going to casinos and attending worship far less than other social activities. The overall average for casino visits per month is 2.70 and the overall average for attending worship is 2.50.

ARE YOU RETIRED, SEMI-RETIRED OR STILL WORKING?

When looking at the data for all respondents in the sample, just over half (52%) are retired, 7% are semi-retired and 38% are still working. These percentages are similar to those in the 2007 survey. Almost all of the respondents in the 75-or-older age group are retired (95%) and a clear majority of those aged 65 - 74 are also retired (80%). It is much less common for respondents in the 50 - 64 age group to be retired (31%).



* Percentages may not add up to 100%; "don't know" and "refuse" are not included.

▼ 64% of the 50 - 64 age group are semi-retired or still working

▼ 20% of the 65 - 74 age group are semi-retired or still working

▼ 4% of the 75 or older age group are semi-retired or still working

The relationship between age and work/retirement status is statistically significant at a Pearson's Chi Square of .000.

The majority of all respondents who are retired indicate that they left work voluntarily, but approximately **214,595 Nevadans** over the age of 50 **did not give up employment status voluntarily.**

IS YOUR RETIREMENT (SEMI-RETIREMENT) VOLUNTARY?

Respondents who are currently retired or semi-retired were asked whether they had done so voluntarily. The majority (74%) of all respondents indicate that they have retired voluntarily. However, the survey data indicates that 24% of Nevadans over the age of 50 are not retiring voluntarily. This represents approximately 214,595 Nevadans over the age of 50 who did not give up employment status voluntarily. This percentage is notably higher than the 2006 - 2008 survey, in which only 15% of respondents reported not retiring voluntarily.

Rank	Reason	Percentage
1	Health/Injury	45%
2	Disability	30%
3	Downsizing/Business Closing	16%
4	Age	5%
5	Caregiving	4%

The main reason provided for forced retirement was health or injury (45%). Respondents indicated that they had been injured, had a medical condition or had chronic health problems that forced them off the job. 30% indicated that they are disabled and were unable to continue working, though many are being compensated.

16% indicated that their companies closed or were downsized; many of these respondents were subsequently laid off. 5% reported that they had to retire because of their age. Several of these respondents indicated that their particular job (i.e. airline pilot or military) had a specific retirement age policy. 4% quit to take care of a spouse or other family member.

HOW MANY MORE YEARS DO YOU PLAN ON WORKING?

- Mean - 9.61 years (9.06 years, 2006 - 2008 study)
- Median - 10 years (9 years, 2006 - 2008 study)
- Mode - 10 years (10 years, 2006 - 2008 study)

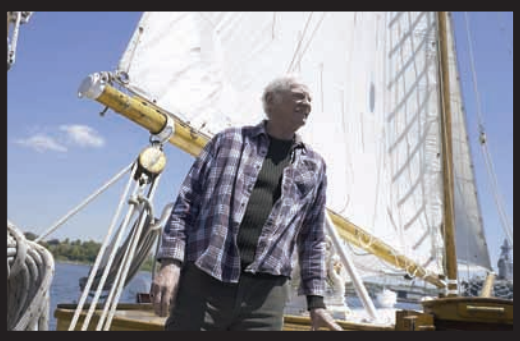
On average, respondents indicated that they plan on working another 9.61 years. The median was 10 years, as was the mode, which was indicated by 23% of respondents. When looking at the results by age, respondents in the 50 - 64 age group plan to work an average of 9.90 years and respondents aged 65 - 74 predict working another 6.76 years on average. Those respondents who are 75 or older plan on working an average of 2.13 years.

INCOME SOURCES

Rank	Income Source	Percentage
1	Social Security	45%
2	Employment	43%
3	Private Retirement/Pension	35%
4	Investments	17%
5	Savings	14%
6	Other	10%
7	SSI	5%
8	Reverse Mortgage	1%

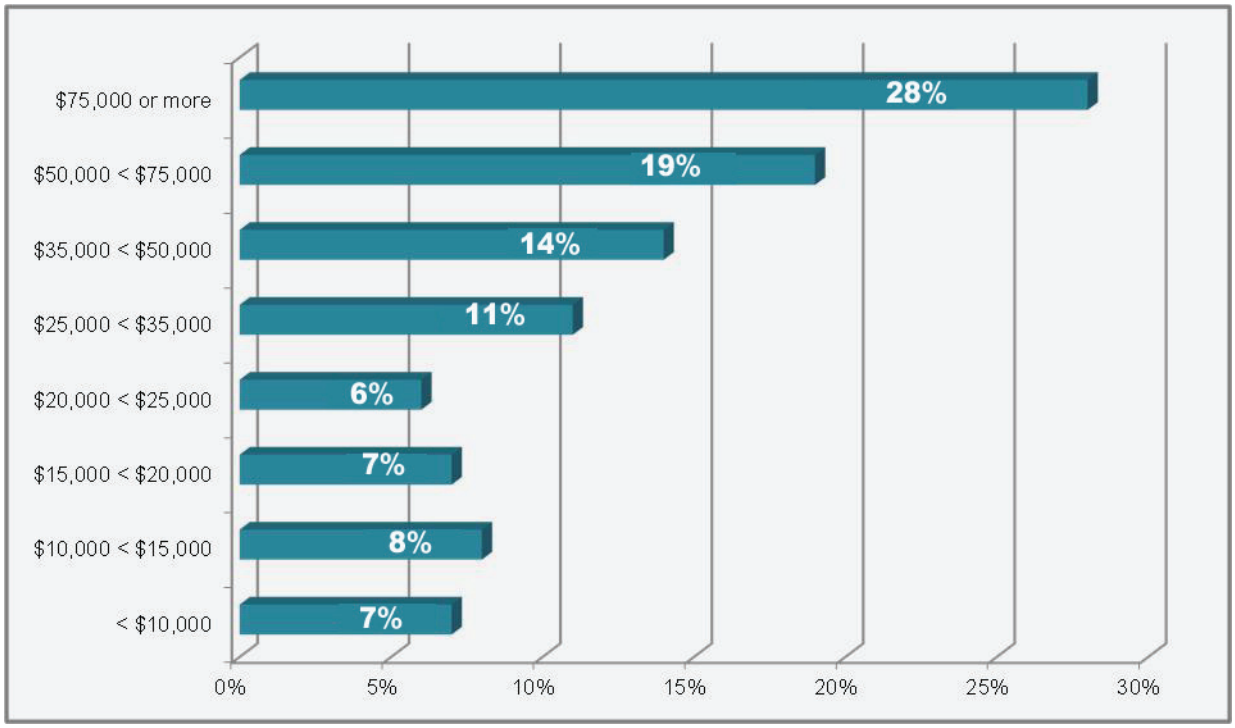
Respondents were asked to indicate their source(s) of income and were instructed to select all options that apply.

- A large percentage (45%) indicated that they derive income via Social Security and 5% listed SSI as a source of income. Approximately 14% of respondents are dependent on Social Security or SSI as their only source of income.
- 43% of respondents report employment as a source of income.These respondents are equally likely to be male (50%) or female (50%), but far more likely to be in the 50-64 age group (87%), than 65-74 (11%) or 75 and older (2%).
- 35% of respondents have a private retirement or pension plan. These respondents are slightly more likely to be male (57%) than female (43%). These respondents are also nearly equally likely to be 50-64 (38%) and 65-74 (35%), rather than 75 or older (27%).
- 17% of respondents report investments as a source of income and 14% indicate savings. Males make up 59% and females make up 41% of respondents who report both savings and investments as sources of income.
- Only 1% of respondents report a reverse mortgage as a source of income.
- 10% of respondents indicate that they have some “other” source of income that was not included in the list.



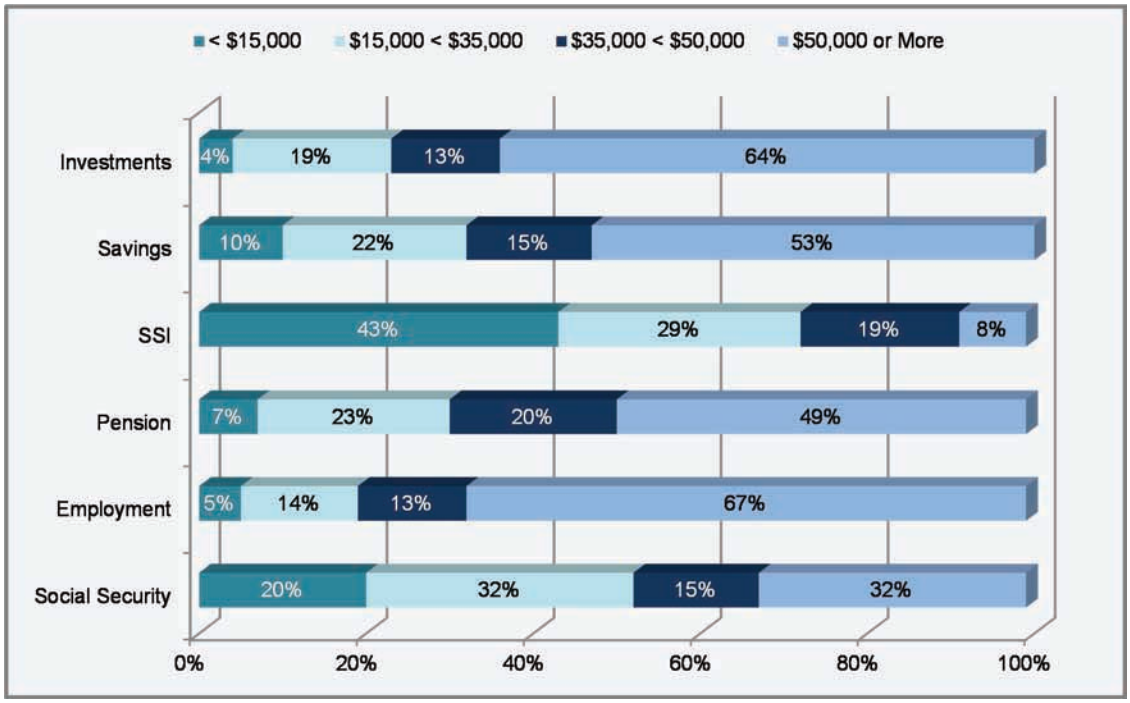
35% of respondents have a **private retirement or pension plan**. These respondents are slightly more likely to be male than female. These respondents are also nearly equally **likely to be 50-64.**

ANNUAL HOUSEHOLD INCOME BEFORE TAXES



- 15% of respondents indicate they have an annual household income that is less than $15,000 with 7% reporting a household income of less than $10,000. The current estimated poverty threshold for a single person is $10,952 (U.S. Census Bureau, 2010).
- 13% have an annual household income of less than $25,000.
- More than half (53%) have an annual household income of less than $50,000.
- 19% report an annual household income of $50,000 to less than $75,000.
- 28% of respondents indicate that they have an annual household income of $75,000 or more. 61% of these respondents are male and 39% are female. Respondents in the 50 - 64 age group (75%) are far more likely than those who are 65 - 74 (19%) or 75 and older (7%) to report an annual income of $75,000 or more.

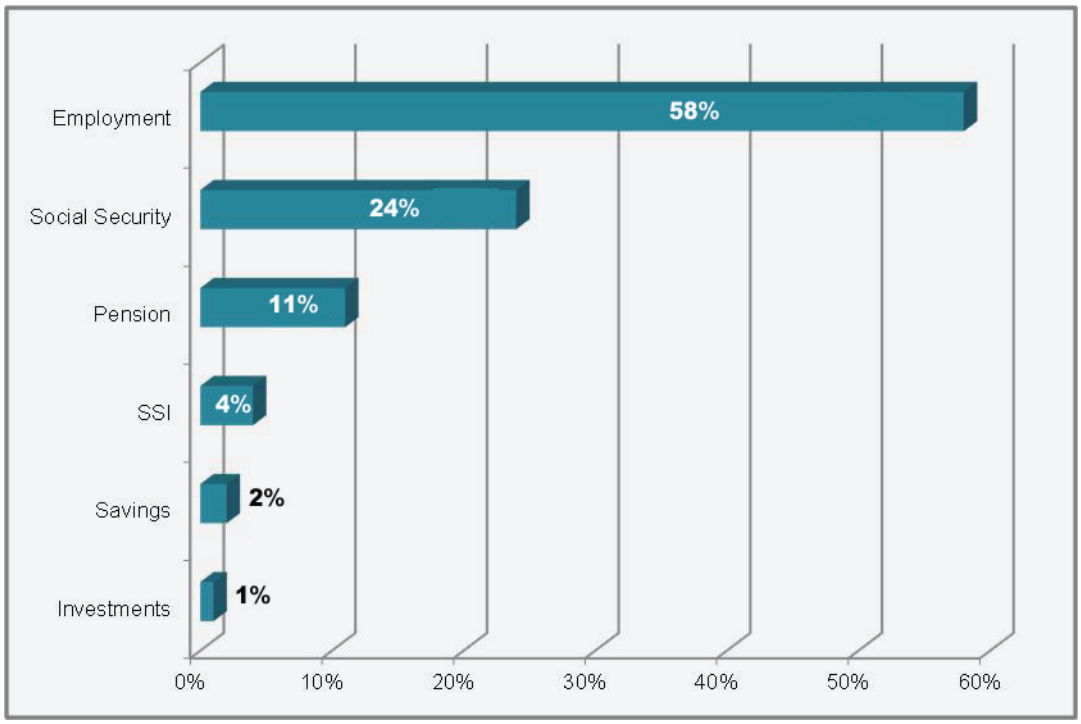
INCOME SOURCES and INCOME BRACKETS



* Percentages may not add up to 100%; “don’t know” and “refuse” not included.

- 67% of respondents who report employment as an income source also report an annual household income of $50,000 or more.
- Respondents with an annual household income of $50,000 or more also make up the majority of respondents who indicate savings (53%) and investments (64%) as income sources. Almost half (49%) of these same respondents have an income source from a private retirement or pension.
- 43% of respondents with an annual household income of less than $15,000 indicate that their primary income source is SSI.
- Social security as an income source has the least amount of variability among the income brackets. Respondents with a household income of $50,000 or more (32%) and $15,000 to less than $35,000 (32%) are equally likely to claim social security as an income source. Social security is also a source for 20% of respondents who make less than $15,000 and 15% of respondents with an annual income of $35,000 to less than $50,000.

SINGLE SOURCE OF INCOME



Overall, 49% of respondents have only one source of household income. Among those with one source of income, 58% receive income from employment only. 24% list Social Security as their sole source of income and another 4% only receive income from SSI. 11% of respondents have a private retirement or pension as their only income source. 2% derive income from savings and 1% acquire income from investments.

- 96% of respondents who receive income from employment only are among those in the 50-64 age group.
- 63% of respondents who list social security as their sole source of income are female.
- Respondents with an income exclusively from a private retirement or pension are most likely to be in the 50-64 age group (71%).
- Respondents who report only receiving income from SSI are most likely to be female (62%) or in the 50-64 age group (82%).
- Respondents who derive income solely from savings are most likely to be female (63%) or in the 50-64 age group (87%).
- Respondents who are 75 or older never report having SSI, savings or investments as their sole source of income.

MONTHLY EXPENDITURES

Expense	Mean Score All Respondents	Mean Score Clark County	Mean Score Washoe County/ Carson City	Mean Score Rural Counties
Rent/Mortgage	$1203 (+4.3%)	$1262 (+9.8%)	$1125 (-7.8%)	$990 (+6.7%)
Utilities	$320 (+13.9%)	$337 (+13.5%)	$300 (+8.7%)	$264 (+5.2%)
Food/Groceries	$395 (+5.9%)	$402 (+7.2%)	$393 (+4.2%)	$360 (+1.4%)
Entertainment	$225 (+31.6%)	$221 (+21.4%)	$208 (+17.5%)	$282 (+127.4%)

Rent/ Mortgage:
Mean - $1203
Median - $1000
Mode - $1000

Overall, respondents report an average monthly rent or mortgage of $1203. This is a 4.3% increase from the amount reported in 2007. Clark County has the highest average monthly rent or mortgage at $1262, followed by Washoe County/Carson City at $1,125 and rural Nevada counties at $990. Reported monthly rent or mortgage expenditures increased by 9.8% in Clark County and by 6.7% in rural Nevada counties from 2007.Washoe County/Carson City, on the other hand, shows a decrease of 7.8% from 2007. This is the only decrease in average monthly expenditures. The median monthly rent or mortgage for Clark County ($1,100) is slightly above the overall median, whereas both Washoe County/Carson City ($950) and rural counties ($900) are slightly below. Interestingly, rural Nevada counties had the highest most commonly reported amount (mode) at $1,500. The mode for Clark County was $1,000. Washoe County/Carson City had the lowest mode at $800.

Utilities:
Mean - $320
Median - $250
Mode - $200

Overall, respondents indicate that their average monthly utilities cost $320 — a 13.9% increase from 2007. Clark County has the highest average cost of utilities at $337 followed by Washoe County/Carson City at $300 and rural Nevada counties at $264. Clark County (13.5%), Washoe County/Carson City (8.7%) and rural Nevada counties (5.2%) all report an increase in monthly utility expenditures from 2007. The median monthly cost of utilities in Clark County is $300. This is slightly higher than Washoe County/Carson City and rural Nevada counties, which both report a median of $250. Similar to monthly rent/mortgage, rural Nevada counties have the highest most common amount (mode) at $300. Clark County and Washoe County/Carson City both have a reported mode of $200.

Food/groceries:
Mean - $395
Median - $400
Mode - $400

Overall, respondents report the average monthly cost of food and groceries to be $395. This is a 5.9% increase from the reported amount in 2007. Following the pattern of other monthly expenditures, Clark County has the highest reported average cost of food ($402) followed by Washoe County/Carson City ($393) and rural Nevada counties ($360). Since 2007, the reported average monthly cost of food has increased in Clark County

MONTHLY EXPENDITURES

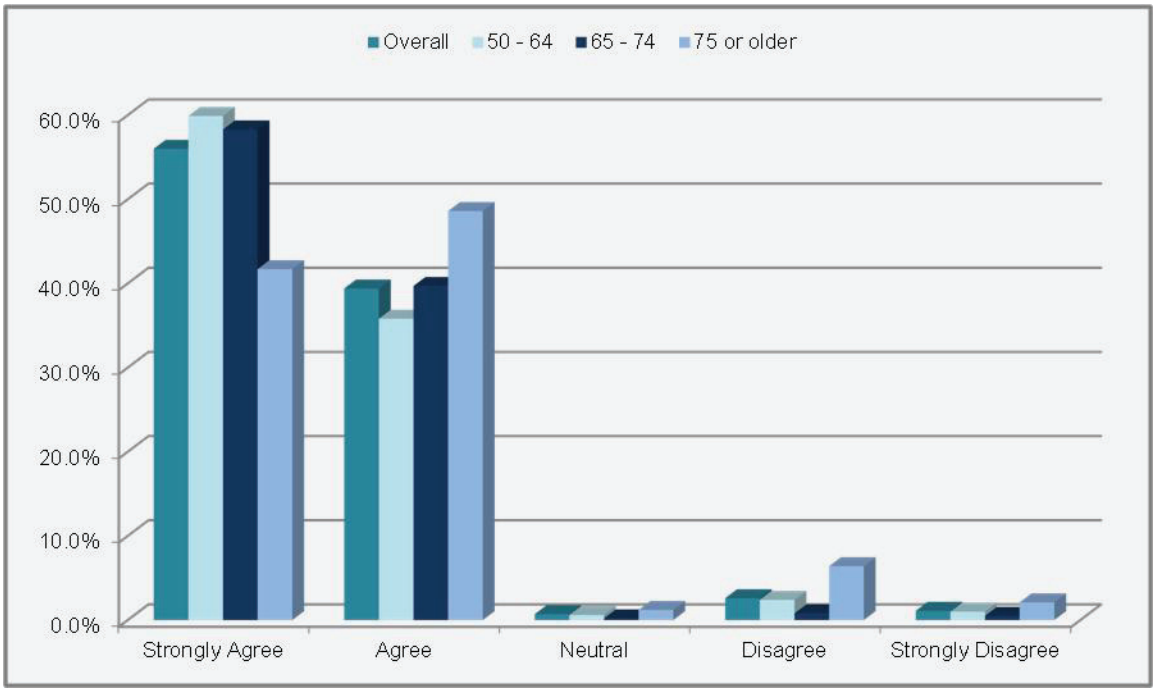
(7.2%), in Washoe County/Carson City (4.2%) and in rural Nevada counties (1.4%). Respondents in Clark County and Washoe County/Carson City both report a median cost of food at $400. Rural Nevada counties have a slightly lower median at $350. Clark County, Washoe County/Carson City and rural Nevada counties all report a mode of $400.

Entertainment:
Mean - $225
Median - $150
Mode - $200

Overall, respondents indicate that their average monthly cost of entertainment is $225 — a 31.6% increase from 2007. Rural Nevada counties report the highest monthly average at $282. This is a 127.4% increase from the amount reported in 2007. Clark County has an average of $221 (21.4%) and Washoe County/ Carson City has an average of $208 (17.5%) — both increasing from 2007. The reported median ($150) and mode ($200) for Clark County are identical to the overall sample. Washoe County/Carson City also has a mode of $200 but a slightly lower median at $100. Rural Nevada counties indicate both a median and a mode of $100.

Respondents report the average monthly cost of **food** and **groceries** to be $395. **This is a 5.9% increase** from the reported amount in 2007.

TAKING CARE OF MY FINANCIAL ACTIVITIES



*Percentages may not add up to 100%; "don't know" and "refuse" are not included

Respondents were asked how much they agree or disagree with the statement, "I am able to take care of my own financial activities, including going to the bank and paying my bills."

Overall, an overwhelming majority (95.4%) "agree" or "strongly agree" with the statement, "I am able to take care of my own financial activities, including going to the bank and paying my bills." Less than 4% of all respondents "disagree" or "strongly disagree" with the statement.

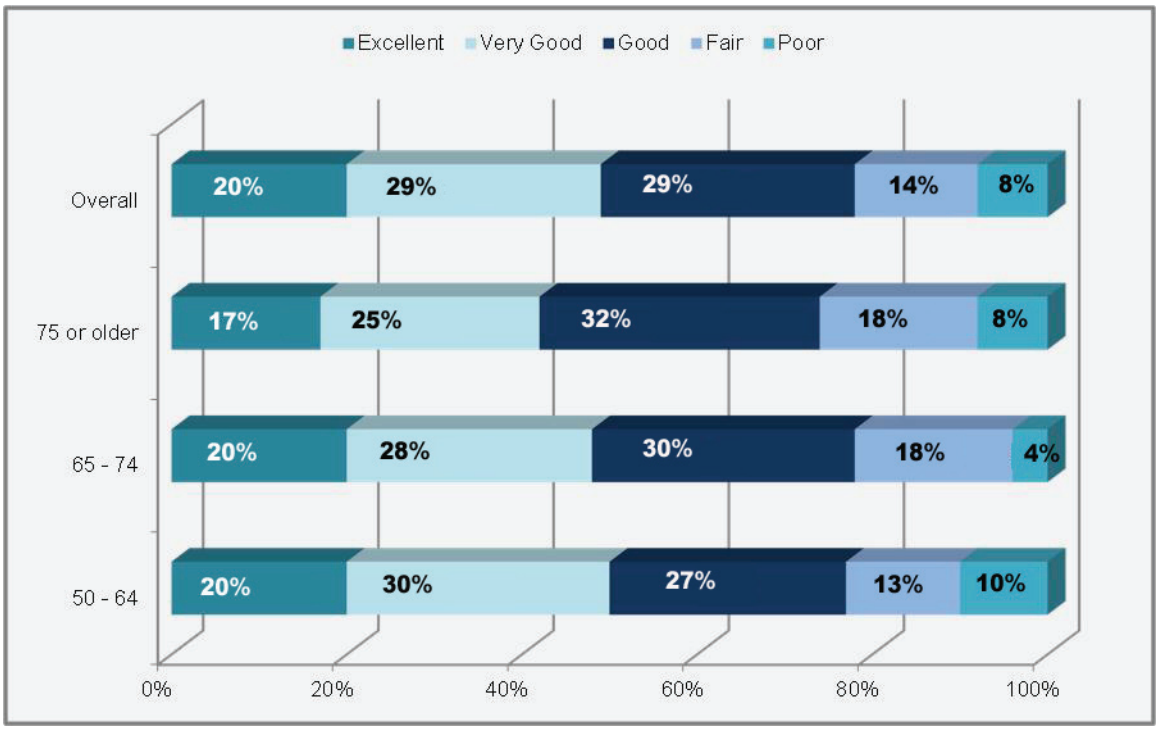
When looking at the data by age group, respondents age 65 - 74 almost always (98%) "agree" or "strongly agree" that they are able to take care of their financial activities.

Additionally, almost 96% (95.7%) of respondents aged 50 - 64 report the same. The vast majority (90.3%) of respondents age 75 or older "agree" or "strongly agree" with the statement. This age group, however, is also much more likely than the others to "disagree" (6.4%).

When looking at the data by other demographic factors, male (96.1%) and female (94.7%) respondents were nearly equally likely to respond affirmatively to the statement, as were respondents who are married (96.5%) or not married (94.2%).

The relationship between the statement, "I am able to take care of my own financial activities, including going to the bank and paying my bills" and each variable; age, gender and marital status; is statistically significant at a Pearson's Chi-Square of .000.

SELF REPORTED HEALTH



When self assessing health status, 49% of respondents think that their health is either "excellent" (20%) or "very good" (29%). Another 29% rate their overall health as "good." Only 22% of respondents indicate that their health is "fair" (14%) or "poor" (8%).

Using the 2010 estimates from the Nevada State Demographer, the estimated number of individuals over the age of 50 in Nevada with only "fair" or "poor" health is approximately 196,712. Conversely, the 49% of individuals that self rate their health as "excellent" or "very good" represent approximately 438,132 Nevadans over the age of 50.

When looking at the data by age, half (50%) of respondents in the 50 - 64 age group report that their health is either "excellent" (20%) or "very good" (30%). Slightly less than half (48%) of those aged 65 - 74 also indicate their overall health is "excellent" (20%) or "very good" (28%). Respondents in the 75 or older group are more likely to assess their health as "good" (32%), than as "excellent" (17%) or "very good" (25%).

Not surprisingly, those respondents aged 75 or older (26%) are the most likely to report their overall health as "fair" (18%) or "poor" (8%). Respondents in the 50 - 64 age group (23%) and the 65 - 74 age group (22%) are nearly equally likely to report the same.

The relationship between self-reported health and age is statistically significant at a Pearson's Chi-Square of .000.

DIAGNOSIS of a CHRONIC DISEASE

Rank	Chronic Illness	Percentage
1	High Blood Pressure/Hypertension	19%
2	Diabetes	16%
3	Other	13%
4	Arthritis/Joint Disease	11%
4	Heart Disease	11%
6	Cancer	9%
7	Lung Disease	4%
8	Vascular Disease	2%
8	Mental Illness	2%
10	Stroke	1%
10	Urinary Disease	1%

*Percentages may not add up to 100%; “don’t know” and “refuse” are not included

Overall, 51% of respondents have been diagnosed with a chronic disease. Using the 2010 projections from the Nevada State Demographer, this represents over 456,000 Nevadans over the age of 50. When looking at the data by age, respondents in the 75 or older age group (66%) are far more likely than those in the 50 - 64 age group (48%) and those in the 65 - 74 age group (51%) to have been diagnosed with a chronic disease.

Respondents were presented a list of chronic diseases and were asked to select all diseases they have been diagnosed with.

The most common chronic disease that respondents have been diagnosed with is high blood pressure or hypertension (19%). This is followed by 16% of respondents who have been diagnosed with diabetes. Arthritis or joint disease and heart disease were both selected by 11% of respondents. Cancer (9%) was ranked 6th among chronic diseases that respondents have been diagnosed with.

4% of respondents report having lung disease, which is slightly more common than vascular disease (2%) and mental illness (2%). Only 1% of respondents report experiencing a stroke or have a urinary disease.

13% of respondents indicate that they have been diagnosed with some “other” chronic disease. Examples of these other diseases include: asthma, high cholesterol, glaucoma and thyroid disease.

TREATMENT for a CHRONIC DISEASE

Rank	Chronic Illness	Overall Percentage	Diagnosed and Treated Percentage
1	High Blood Pressure/Hypertension	21%	93%
2	Diabetes	14%	89%
3	Other	13%	77%
4	Arthritis/Joint Disease	9%	67%
4	Heart Disease	9%	83%
6	Cancer	5%	50%
7	Lung Disease	4%	75%
8	Vascular Disease	2%	59%
9	Mental Illness	1%	80%
9	Stroke	1%	39%
9	Urinary Disease	1%	57%

*Percentages may not add up to 100%; “don’t know” and “refuse” are not included

Overall, 49% of respondents are being treated for a chronic disease. This represents over 438,000 Nevadans over the age of 50. When looking at the data by age, respondents in the 75 or older age group (58%) are more likely than those in the 50 - 64 age group (46%) and those in the 65 - 74 age group (49%) to be receiving treatment for a chronic disease.

The table above shows a list of chronic illnesses, ranked by the overall percentage of respondents currently being treated for each illness. The percentage of respondents who report being diagnosed with a chronic disease and report being treated for that same disease is also provided.

Overall, 21% of respondents are being treated for high blood pressure/hypertension. 93% of respondents who are diagnosed with high blood pressure/hypertension are currently being treated. 14% of respondents from the sample indicate they are being treated for diabetes. Of those respondents who report being diagnosed with diabetes, 89% are currently being treated. 9% of respondents report being treated for both heart disease and arthritis/joint disease. However, 83% of those who are diagnosed with heart disease are currently being treated, whereas only 67% who are diagnosed with arthritis/joint disease are being treated. Overall, 5% of respondents are being treated for cancer and only half (50%) of those who were diagnosed are being treated.

Less than 5% of respondents are being treated for lung, vascular, or urinary disease, mental illness or stroke. The majority of respondents diagnosed with these diseases are being treated, with the exception of those diagnosed with a stroke (39%).

PHYSICAL and MENTAL HEALTH

Respondents were asked the following questions:

"Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?"

"Thinking about your mental health; which includes stress, depression and emotional problems; for how many days during the past 30 days was your mental health not good?"

Item	Average # of Days All Respondents	Average # of Days 50 - 64	Average # of Days 65 - 74	Average # of Days 75 or Older
Physical Health	5.36	5.55	4.88	5.86
Mental Health	3.96	5.10	2.41	2.35

On average, Nevadans over the age of 50 have 5.36 days per month that they self described as "bad" physical health days. Overall, 60.8% of respondents indicate that there were no bad physical health days in the last month. Regarding mental health, respondents reported 3.96 days during the past month that their mental health was not good. 71.6% of respondents indicated there were zero bad mental health days.

Respondents aged 75 or older report the highest average number of days with "bad" physical health (5.86), followed by those respondents in the 50 - 64 age group (5.55) and the 65 - 74 age group (4.88).

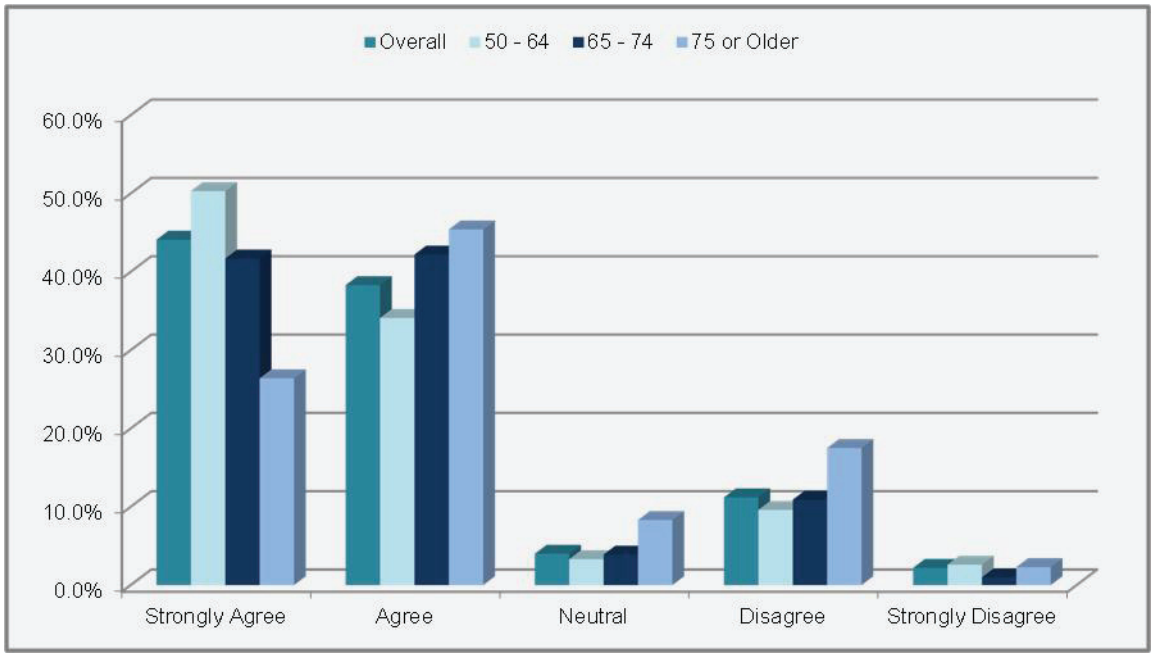
On average, respondents aged 50 - 64 (5.10) are more likely than those 65 - 74 (2.41) and 75 or older (2.35) to report days during the past month that their mental health was not good.

Item	Average # of Days All Respondents	Average # of Days Male	Average # of Days Female
Physical Health	5.36	4.61	6.07
Mental Health	3.96	3.42	4.47

Females report an average of 6.07 "bad" physical health days in the past month, as compared to males who indicate only an average of 4.61. Females (4.47) are also more likely to have "bad" mental health days as compared to males (3.42).

HOUSEHOLD CHORES

Respondents were asked to indicate how much they agree or disagree with the following statement, *"I am able to do household chores easily."*



Overall, 82.4% of respondents "agree" (38.3%) or "strongly agree" (44.1%) with the statement, *"I am able to do household chores easily."* This represents approximately 736,000 Nevadans over the age of 50 who can do household chores easily. Just over 13% of respondents "disagree" (11.2%) or "strongly disagree" (2.2%) with the statement.

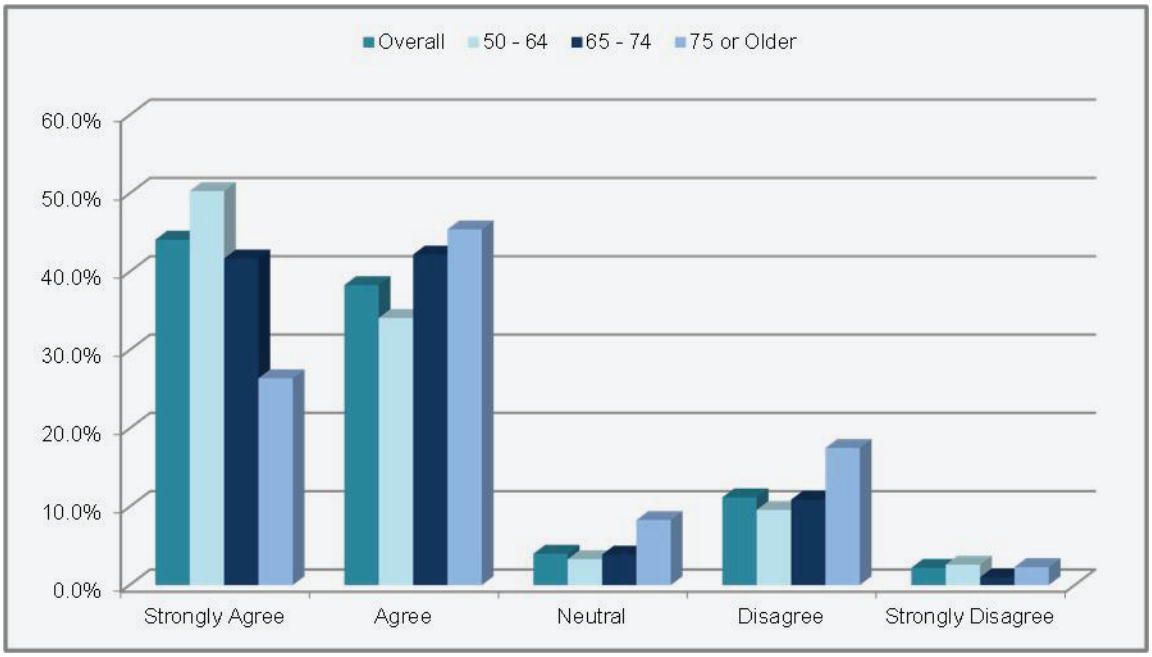
When looking at the data by age, half (50.3%) of respondents in the 50-64 age group "strongly agree" with the statement. Another 34.1% indicating that they "agree." Only 12.2% of respondents in this age category "disagree" (9.6%) or "strongly disagree" (2.6%). Similarly, 83.9% of respondents aged 65-74 "agree" (42.2%) or "strongly agree" (41.7%), with only 11.9% responding unfavorably. The majority (71.9%) of respondents in the 75 or older age group "agree" (45.4%) or "strongly agree" (26.4%) with the statement "I am able to do household chores easily." However, about 20% of these respondents also indicate that they "disagree" (17.5%) or "strongly disagree" (2.3%) with the statement.

When looking at the data by gender, male (86.3%) respondents are more likely than female (78.6%) respondents to indicate an affirmative response to the statement.

The relationship between the statement, *"I am able to do household chores easily"* and age is statistically significant at a Pearson's Chi-Square of .000, as is the relationship between the statement and gender (.000).

NUTRITION

Respondents were asked to indicate how much they agree or disagree with the following statement, *"I am able to eat nutritional meals and am not hungry."*



*Percentages may not add up to 100%; "don't know" and "refuse" are not included

Overall, a vast majority (94.3%) of respondents "agree" (42.9%) or "strongly agree" (51.4%) with the statement. This represents approximately 843,000 Nevadans over the age of 50 who are able to eat nutritional meals and not feel hungry.

When looking at the data by age, a vast majority of respondents in all age categories; 50 - 64 (93.1%), 65 - 74 (95.2%), and 75 or older (96.6%); indicate that they "agree" or "strongly agree" with the statement "I am able to eat nutritional meals and am not hungry."

Additionally, female (95.3%) respondents were only slightly more likely than male (93.2%) respondents to "agree" or "strongly agree" with the statement.

The relationship between the statement, "I am able to eat nutritional meals and am not hungry" and each variable, age and gender, is statistically significant at a Pearson's Chi-Square of .000.

Overall, only 3.8% of respondents indicated an unfavorable response to the statement. These respondents were asked additional questions to determine what factors may contribute to poor nutrition.
These questions include:

Item	% Selected
I take 3 or more prescribed or over the counter drugs a day.	45.2%
I don't always have enough money to buy the food I need.	35.4%
I have tooth problems or mouth problems that make it hard for me to eat.	30.7%
I am not always physically able to shop, cook, and/or feed myself.	21.7%

In the table above, the percent selected represents the combined percentage of respondents who "agree" or "strongly agree" with each statement.

"I take three or more prescribed or over the counter drugs a day" was selected by 45.2% of respondents as a reason for not always eating nutritional meals. This represents approximately 13,050 Nevadans over the age of 50. In the 2006 - 2008 survey, half (50%) of the respondents selected this same reason.

35.4% of respondents indicate that they do not always eat nutritional meals, because they *"don't always have enough money to buy the food they need."* This represents approximately 10,220 Nevada seniors and is compared to the 31% of respondents who selected this reason in the 2006 - 2008 survey.

30.7% of respondents *"have tooth or mouth problems that make it hard to eat,"* an increase of 7% from the 2006 - 2008 survey (23%). Approximately 8,865 Nevadans over the age of 50 do not always eat nutritional meals due to tooth or mouth problems.

"I am not always physically able to shop, cook, and/or feed myself" was selected by 21.7% of respondents. Respondents were the least likely to "agree" or "strongly agree" with this statement. In the 2006 - 2008 survey, this item was ranked first and was selected by 52% of respondents.

LIMITATIONS and DIFFICULTIES with DAILY ACTIVITIES

Respondents were asked, *"Are you limited in one or more of your daily activities such as: getting around without assistance, bathing, dressing, or eating?"*

	Overall	50 - 64	65 - 74	75 or older
% Yes	7.5%	7.0%	6.6%	11.4%

7.5% of respondents indicate they are limited in one of more of their daily activities. This represents approximately 67,000 Nevadans over the age of 50.

Not surprisingly, when looking at the data by age, those in the 75 or older age group (11.4%) are the most likely to report having limitations with daily activity. This is followed by those in the 50 - 64 age group (7.0%) and those in the 65 - 74 age group (6.6%).

The relationship between limitations with daily activities and age is statistically significant at a Pearson's Chi-Square of .000.

	Overall	Male	Female
% Yes	7.5%	5.8%	9.2%

When looking at the data by gender, female (9.2%) respondents are much more likely than male (5.8%) respondents to indicate limitations with daily activities.

The relationship between limitations with daily activities and gender is statistically significant at a Pearson's Chi-Square of .000.

Respondents who indicate having limitations in one or more daily activities were then asked, "Do you have anyone who can/does help you with any daily activities in which you have difficulties?"

Overall, 66.9% of these respondents report having someone to help with daily activities. Respondents in the 75 or older (57.9%) age group are the least likely to report having someone who can and does help with daily activities. 70.3% of 50-64 year olds and 71% of those aged 65-74 report having help.

Male (74.7%) respondents are more likely than female (62.2%) respondents to indicate that someone helps with daily activities.

Respondents who have limitations with one or more daily activities were provided a list of activities and asked to indicate whether or not they experience difficulties with each.

Daily Activity	% Selected
Walking	85.9%
Dressing	38.5%
Getting out of Bed	36.2%
Bathing	33.4%
Using the Toilet	18.8%
Eating	18.2%

85.9% of respondents who experience limitations with daily activities report having difficulty walking. Respondents in the 65 - 74 (92.9%) age group have the highest overall percentage of respondents identifying walking as a difficulty. Surprisingly, those 75 or older (82.1%) have the lowest percentage. Walking, as a limitation, is far more likely than any other daily activity limitation.

38.5% of respondents indicate difficulty dressing, with respondents aged 50 - 64 (48.1%) reporting this limitation more often than other age groups. Similarly, 36.2% also indicate difficulty getting out of bed. 50 - 64 (45.4%) year olds and female (47.4%) respondents report higher percentages for this limitation than other groups.

Bathing is reported by 33.4% of respondents as a limited daily activity. Surprisingly, those aged 75 or older (22.8%) have the lowest percentage of respondents indicating this limitation. 18.8% of respondents report difficulty using the toilet. The group with the lowest percentage who select this limitation is those respondents age 65 - 74 (12.1%).

Finally, 18.2% of respondents indicate eating as a limited daily activity. Respondents in the 50 - 64 (24.0%) age group have the highest percentage and those 75 or older (9.8%) have the lowest.

Daily Activity	50 - 64	65 - 74	75 or Older
Walking	85.8%	92.9%	82.1%
Dressing	48.1%	30.0%	30.1%
Getting out of Bed	45.4%	31.7%	17.7%
Bathing	39.1%	32.5%	22.8%
Using the Toilet	20.3%	12.1%	20.2%
Eating	24.0%	16.1%	9.8%

IN-HOME CARE

24.1% of respondents receive some type of in-home care. This represents approximately 215,500 Nevadans over the age of 50. When looking at the data by age, respondents age 65-74 (29.6%) are the most likely to have some type of in-home care, followed by those 75 or older (27.8%) and those 50 - 64 (22.2%). The relationship between in-home care and age is statistically significant at a Pearson's Chi-Square of .000. Respondents who receive in-home care were asked to specify the number of hours they receive care/assistance.

Overall:
Mean - 7.04 hours
Median - 3.00 hours
Mode - 3.00 hour
Range: 1-24 hours

Overall, the average number of hours that respondents receive in-home care is 7.04 hours per day. The overall median is three hours, with one hour being the most common (mode). Respondents receive from one hour to 24 hours of care. The relationship between the number of in-home care hours and age is statistically significant at a Pearson's Chi-Square of .000.

28.1% of respondents receive care for 1 hour a day. Another 21.1% receive four hours of care and 19.7% receive care 24 hours a day. 15.4% receive three hours of care a day, while only 7.6% receive two hours of care. Six hours of care per day and eight hours of care per day were each reported by 4.2% of respondents.

50-64 age group:
Mean - 7.62 hours
Median - 4.00 hours
Mode - 4.00 hour
Range: 1-24 hours

Respondents age 50 - 64 receive an average of 7.62 hours of care a day. The median and the mode for this age group is four hours of care per day. In-home care for 50-64 year olds ranges from one hour per day to 24 hours a day. Respondents in the 50 - 64 age group are most likely to receive care four hours per day (32.9%). These respondents are equally likely to receive care for one hour (22.3%) or three hours (22.3%). 22.5% of respondents age 50 - 64 report receiving 24-hour in-home care.

65-74 age group:
Mean - 3.20 hours
Median - 1.00 hour
Mode - 1.00 hour
Range: 1-8 hours

Respondents age 65 - 74 are the most likely to receive in-home care, but report the lowest average number of hours per day (3.20 hours). The median and the mode for in-home care is 1 hour for these respondents. Respondents in the 65 - 74 age group only report receiving care from one hour to eight hours per day. This is the only group that has zero respondents receiving 24-hour care.

Just over half (51.0%) of these respondents receive one hour of care per day. Respondents age 65 - 74 are nearly equally likely to receive care for six hours (16.9%) or eight hours (17.1%) a day. 14.9% of these

75-or-older age group:
Mean - 9.80 hours
Median - 4 hours
Mode - 24 hours
Range: 1-24 hours

respondents indicate receiving two hours of care. Respondents age 75 or older report the highest average number of hours per day for receiving care (9.80 hours). The median number of hours is four per day. The most common response (mode) for respondents age 75 or older is 24-hour care. These respondents receive care from 1 hour to 24 hours.

34% of respondents 75 or older receive care 24 hours a day. These respondents are equally likely to receive care for 1 hour (17.0%), 2 hours (17.0%) or 4 hours (17.0%) a day. 15% of respondents receive care for 3 hours a day.

More than **215,500 Nevadans** over the age of 50 receive some type of **in-home care.** Among those 75 and older who receive care, **34 percent receive care 24 hours a day.**

HEALTH INSURANCE

	Overall	50 - 64	65 - 74	75 or Older
% Yes	91.6%	87.2%	97.1%	99.0%

Overall, 91.6% of respondents are covered by health insurance. This represents approximately 819,000 Nevadans over the age of 50. Respondents age 75 or older (99.0%) almost always report being covered by insurance. Similarly, 97.1% of respondents 65 - 74 indicated being covered by health insurance. Those respondents age 50 - 64 (87.2%) are the least likely to report having insurance, though a vast majority are covered.

Type of Insurance	% Selected
Private Health Insurance	54.8%
Medicare	35.3%
Medigap	1.2%
Medicaid	3.2%
Military	10.1%
State Sponsored Health Plan	5.4%
Other Government Plan	4.6%
Single Service	0.5%

Percentages may be in excess on 100%; respondents instructed to "select all that apply."

Respondents who are covered by health insurance were asked to specify which type(s) of insurance they are covered by. More than half (54.8%) of the respondents are covered by private health insurance.

35.3% of respondents report having health insurance coverage through Medicare, while 3.2% have Medicaid and 1.2% receive Medigap (insurance that covers what Medicare doesn't).

10.1% of respondents are covered by military health insurance, such as Tricare or Veteran's Insurance. 5.4% of respondents have health insurance through a State Sponsored Health Plan, while 4.6% have insurance through some other government plan.

When looking at the data by age, respondents in the 50 - 64 age group are the most likely to be covered by private health insurance (60.0%) and are seldom covered by Medicare (9.2%). Conversely, a clear majority of respondents 65 - 74 (71.4%) and 75 or older (82.8%) are covered by Medicare. Less than half of both of these age groups, 65 - 74 (44.9%) and 75 or older (47.3%), are covered by private health insurance.

Respondents who are not currently covered by health insurance were asked, *"In the past year, how many months were you without insurance?"*

- Mean - 10.69 months
- Median - 12 months
- Mode - 12 months

In the past year, on average, those respondents who are not currently covered by health insurance have been without insurance for 10.69 months. The median time to be without insurance in the past year is 12 months, as is the most common response (mode).

In the past year, the vast majority (84.9%) of people currently not covered by health insurance have been without insurance for 12 months or the entire year.

Respondents were then asked, *"What is the reason you are not covered?"*

Reason	% Selected
Lost Job with Insurance	42.6%
Employer does not offer Coverage or Not Eligible for Coverage	7.8%
Cost is too High	31.0%
Insurance Company Refused Coverage	3.7%
Other	10.6%

Percentages may not add up to 100%; "don't know" and "refuse" are not included.

42.6% of respondents are not currently covered by health insurance because they lost the job through which they had insurance. Another 31.0% do not have insurance because the cost is too high.

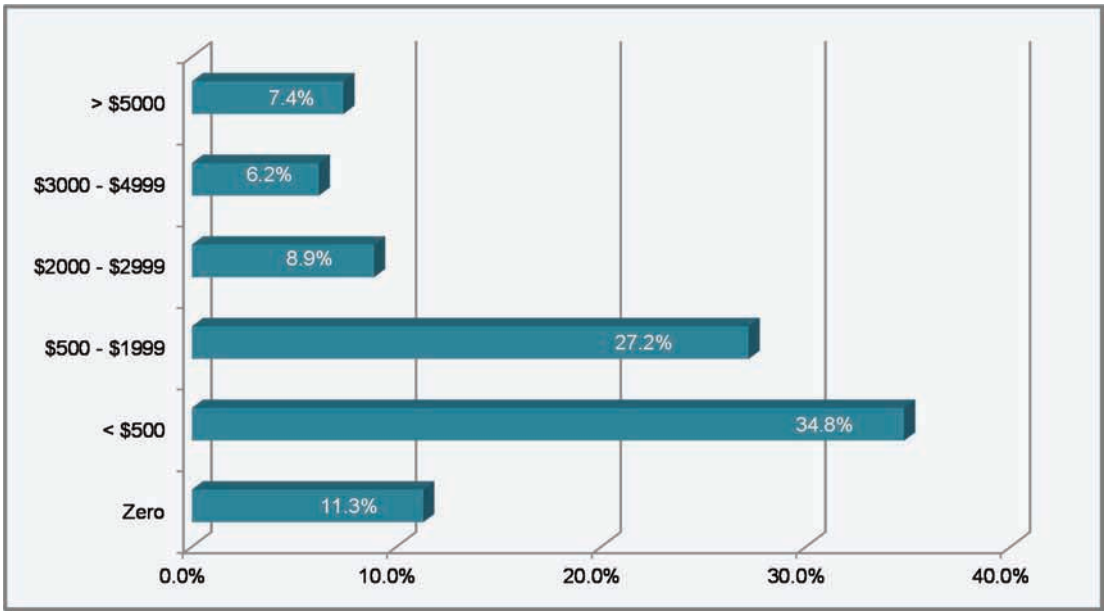
7.8% of respondents work for an employer that does not offer coverage or are not eligible for coverage and 3.7% were refused coverage by the insurance company. 10.6% are not covered for some other reason.

In the past year, 60.6% of respondents, who do not currently have health insurance, have delayed seeking medical care because of worry about the cost. This represents approximately 39,450 Nevadans over the age of 50.

In the past year, **60 percent** of the respondents who didn't have **health insurance** delayed seeking medical care because they were **worried about the cost.** This represents nearly 40,000 Nevadans over the age of 50.

MEDICAL EXPENSES

Respondents were asked, *"In the past year, how much money have you spent out of pocket on medical care?"*



* Percentages may not add up to 100%; "don't know" and "refuse" are not included

11.3% of respondents have not spent any money out of pocket for medical care in the past year. This represents approximately 101,000 Nevadans over the age of 50. 34.8% of respondents spent less than $500 in the past year on medical care and 27.2% spent between $500 and $1999.

Once a respondent surpasses $2000, there is little variance among those that spent $2000 - $2999 (8.9%), $3000 - $4999 (6.2%) and more than $5000 (7.4%) out of pocket on medical care.

Finally, respondents were asked, "How many prescription medications do you take on a regular basis, not including vitamins?"

- **Mean - 3.29 prescription medications**
- **Median - 2.00 prescription medications**
- **Mode - 0.00 prescription medications**
- **Range - 0.00 - 22.00 prescription medications**

21.0% of respondents do not take any prescription medication on a regular basis, followed by 15.8% who take two and 14.1% who take one.

PRIMARY CAREGIVER for a PERSON OVER THE AGE of 60

	Overall	50 - 64	65 - 74	75 or Older
% Yes	9.7%	8.9%	12.5%	10.8%

Overall, 9.7% of respondents are the primary unpaid caregiver for a person over the age of 60. This represents approximately 86,700 Nevadans over the age of 50 who care for someone, other than themselves, who is 60 or older.

When looking at the data by age, 12.5% of respondents in the 65 - 74 age group are currently a caregiver for someone age 60 or older. 10.8% of respondents aged 75 or older and 8.9% of respondents 50 - 64 report the same finding.

Respondents who are the primary caregiver for a person over the age of 60 were read a list of activities and were asked to identify whether or not they participate in each activity to cope as a caregiver.

Rank	Caregiver Activity	% Selected
1	Praying	72.2%
2	Exercising or Working Out	69.3%
3	Talking with or Seeking Advice from Friends or Relatives	61.4%
4	Reading about Caregiving in Books or Other Materials	52.9%
5	Going on the Internet to find Information	49.0%
6	Talking to a Professional or Spiritual Counselor	30.1%
7	Taking any kind of Medication	25.7%

The most common activity that caregivers use for coping is praying (72.2%). This activity was also ranked first in the 2006 - 2008 survey (75%). The second most common method of coping is exercising or working out (69.3%). Exercise, as a method of coping, increased by 11% from the 2006 - 2008 senior study.

61.4% of respondents talk with or seek advice from friends or relatives, in order to cope with caregiving responsibilities. Just over half of respondents (52.9%) read about caregiving in books and other materials, while just under half (49%) search the Internet for information.

30.1% of respondents cope by talking to a professional or spiritual counselor. About a quarter of respondents (25.7%) cope with caregiving by taking any kind of medication.

PRIMARY CAREGIVER for a PERSON UNDER the AGE of 18

	Overall	50 - 64	65 - 74	75 or older
% Yes	8.2%	12.5%	1.0%	2.0%

Overall, 8.2% of respondents are the primary caregiver for a child under the age of 18. This represents approximately 73,320 Nevadans over the age of 50 who care for a child.

When looking at the data by age, respondents in the 50 - 64 (12.5%) age group are far more likely to be the primary caregiver for a child under 18 than those respondents age 65 - 74 (1.0%) or 75 or older (2.0%).

Those respondents who care for a child under the age of 18 were asked how many children they care for. The majority of respondents (58.7%) care for one child and another 33.4% are the primary caregiver for two children. 4.9% of respondents care for three children and 3.0% of respondents care for four.

Respondents who care for a child or children under the age of 18 were also asked to identify their relationship to the child or children.

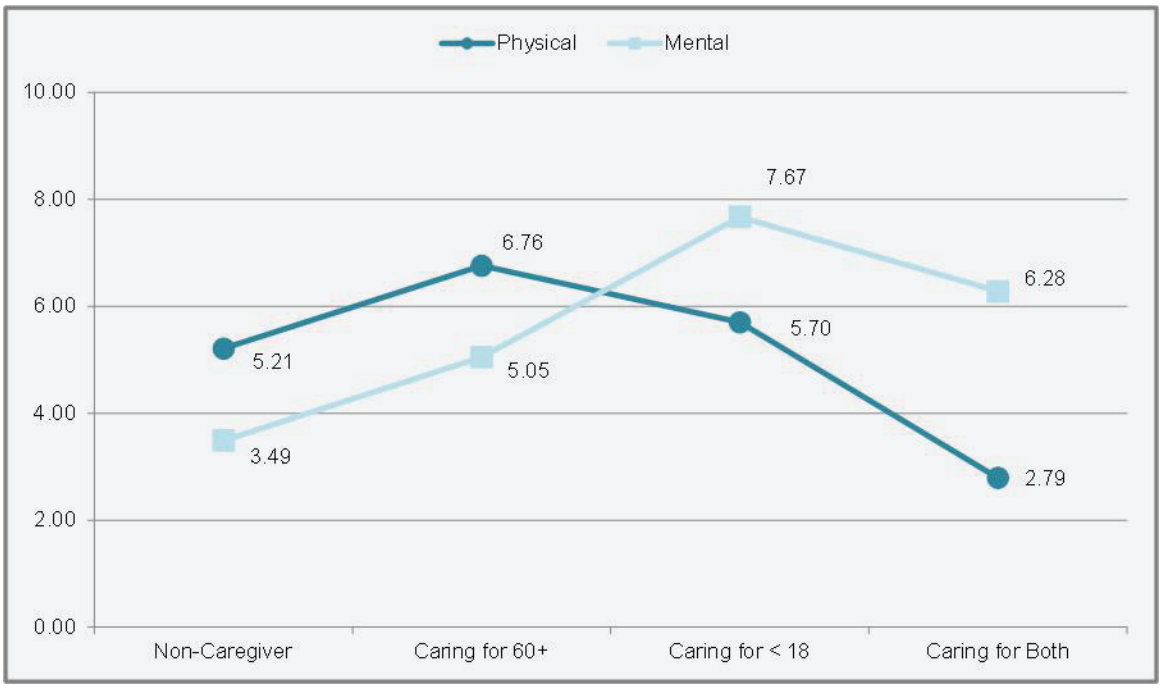
Relationship	Percentage
Parent	70.2%
Step-Parent	4.3%
Guardian	1.9%
Grandparent	24.2%
Other	3.5%

* Percentages may be in excess of 100%; respondents instructed to select all that apply

70.2% of respondents who care for a child or children under 18 identify their relationship as a parent to the child(ren). Another 24.2% of respondents indicate they are a grandparent to the child or children they care for.

4.3% of respondents identify as the step-parent and 1.9% are the child or children's' guardian. 3.5% of respondents indicate they share some other relationship with the child or children they care for.

CAREGIVING and PHYSICAL and MENTAL HEALTH



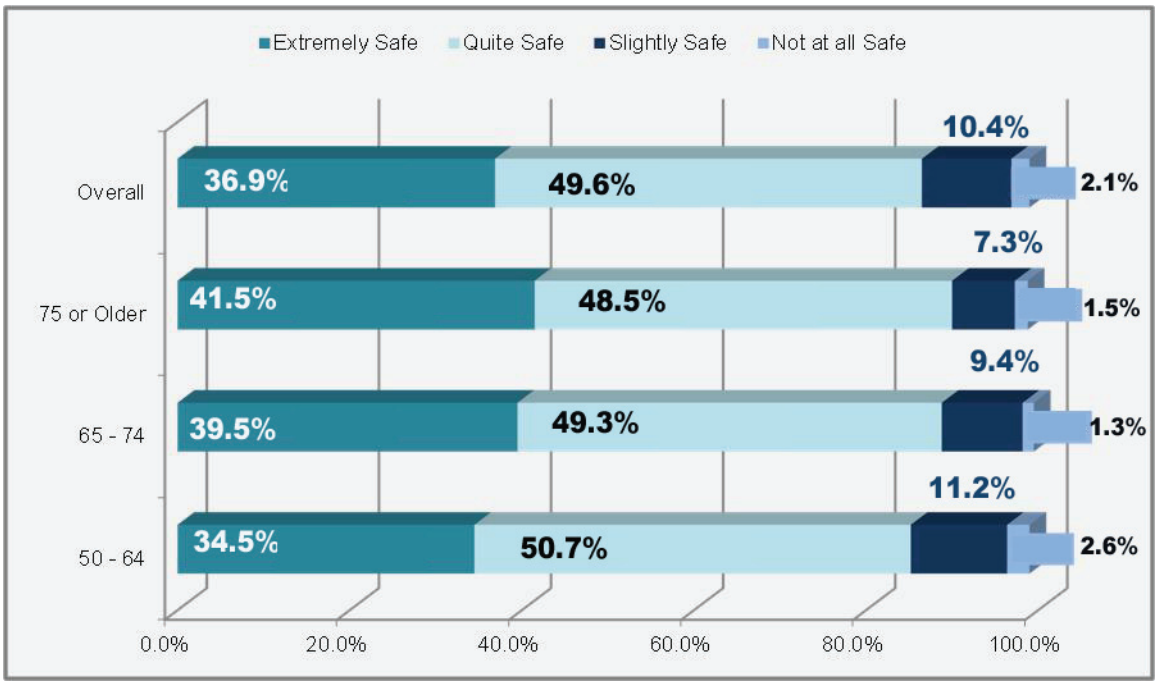
The graph above shows the average number of "bad" physical and mental health days a month for respondents who identify as non-caregivers, those who care for someone age 60 or older only, those who care for a person under the age of 18 only and those who care for both. As indicated in the graph, the number of days per month with "bad" physical health and "bad" mental health are affected by caregiving.

For physical health, non-caregivers report an average of 5.21 days per month in which physical health is not good. Respondents who care for a person age 60 or older (6.76) or who care for a person under the age of 18 (5.70) indicate a slightly higher average number of day each month with "bad" physical health. Respondents who care for both someone over 60 and under 18 only report 2.79 days per month with "bad" physical health.

When looking at the responses for mental health, in general, caregivers experience more days per month than non-caregivers with "bad" mental health. Non-caregivers report an average of 3.49 days each month when mental health is not good. Respondents who care for a person age 60 or older have, on average, 5.05 days each month with "bad" mental health and those who care for both experience an average of 6.28 days. Respondents who care for a person under the age of 18 report an average of 7.67 days each month with "bad" mental health. This is the highest average for "bad" mental health days as compared to looking at the data by other demographics, such as age and gender.

The relationship between caregiving and both physical and mental health is statistically significant at a Pearson's Chi-Square of .000.

ASSESSMENT OF NEIGHBORHOOD SAFETY



Overall, almost half (49.6%) of all respondents believe their neighborhood is “quite safe.” Another 36.9% would classify their neighborhood as “extremely safe.” 10.4% of respondents think their neighborhood is “slightly safe” and only 2.1% would identify their neighborhood as “not safe at all.”

There is little variance among age and assessment of neighborhood safety. A vast majority of respondents in each age group; 50 - 64 (85.2%), 65 - 74 (88.8%) and 75 or older (90.0%); would classify their neighborhood as either “extremely safe” or “quite safe.” Respondents in the 50 - 64 age group (11.2%) are the most likely to designate their neighborhood as “slightly safe,” followed by those 65 - 74 (9.4%) and 75 or older (7.3%). Only 2.6% of respondents age 50 - 64, 1.3% of respondents 65 - 74, and 1.5% of respondents 75 or older would identify their neighborhood as “not at all safe.”

When looking at the data by gender, male (88.6%) respondents are slightly more likely than female (84.6%) respondents to classify their neighborhood as either “extremely safe” or “quite safe.”

When assessing neighborhood safety by county, respondents who live in rural Nevada counties (93.6%) are the most likely to identify their neighborhood as “extremely” or “quite” safe, followed by respondents from Washoe County/Carson City (90.4%) and Clark County (84.1%).

The relationship between neighborhood safety and each variable; age, gender and county; is statistically significant at a Pearson’s Chi-Square of .000.

VICTIMS OF CRIME

Respondents were asked, *"Were you attacked or threatened OR did you have something stolen from you in the past 12 months?"*

Overall, 12.0% of respondents report being attacked or threatened, or having something stolen from them in the past 12 months. This represents approximately 107,300 Nevadans over the age of 50.

When looking at the data by age, 13.9% of respondents age 50 - 64 report being a victim of crime, followed by 9.0% of respondents 65 - 74 and 8.1% of respondents 75 or older. Regarding gender, 14.1% of male respondents and 10.0% of female respondents indicate the same.

When considering crime and county, 13.0% of respondents who reside in Clark County report being a victim, followed by 11.6% of respondents who reside in Washoe County/Carson City and 7.2% of respondents who reside in rural Nevada counties.

Respondents who have been attacked, threatened or had something stolen from them in the last 12 months were asked to identify the location(s) of the crime.

Crime Location	Percentage
At Home, including the Yard or Porch	69.2%
In a Public Place, such as a Shopping Mall, Restaurant, Casino, or Airport	12.9%
In the Street or In a Parking Lot	10.6%
At Work	8.4%
While Riding in a Vehicle	6.6%
At or Near a Friend's, Relative's, or Neighbor's Home	6.3%
Other	1.4%

A clear majority (69.2%) of crimes occur at home, including the yard or the porch. This is followed by crime that occurs in a public place, such as a shopping mall, restaurant, casino or the airport (12.9%). 10.6% report the crime occurring in the street or in a parking lot, while 8.4% were attacked or had something stolen while at work.

6.6% of respondents report being victimized while riding in a vehicle and 6.3% were at or near a friend, relative, or neighbor's home. 1.4% of respondents indicate they were attacked or had something stolen from them in some other location.

OFFENDER-VICTIM RELATIONSHIP

Respondents were asked, "People don't often think of crimes committed by someone they personally know. Did you have something stolen from you or were you attacked, intimidated or threatened by any of the following in the past 12 months (someone at work, neighbor or friend, relative or family member, any other person you've known or met)?"

6.9% of respondents indicate that they were victimized by someone that they personally know. Using population estimates, there were nearly 62,000 instances of crime victimization of Nevadans over the age of 50 by a known perpetrator.

25.2% of respondents who previously reported being attacked or having something stolen from them indicate that the offender was known. Furthermore, 4.4% of respondents who previously reported that they had not been attacked or had something stolen from them in the past 12 months indicate that, in fact, someone they know had victimized them.

Relationship	Percentage
Any other Person Known or Met	31.3%
A Relative or Family Member	30.5%
A Neighbor or Friend	23.4%
Someone at Work	20.5%

30.5% of respondents indicate that they have been attacked, threatened, intimidated or had something stolen from them by a relative or family member in the past 12 months. 23.4% of respondents report being victimized by a neighbor or friend, while 20.5% knew the perpetrator as someone from work. Finally, 31.3% of respondents were attacked or had something stolen from them by any other person known to them or that they have met.

UNREPORTED CRIME

Respondents were asked, *"Did anything happen to you which you THOUGHT was a crime, but did not report to the police?"*

Overall, 6.4% of respondents indicate that they thought they were a victim of crime but did not report it to the police. This represents approximately 57,225 Nevadans over 50 that may not have reported a potential crime.

When looking at the data by age, 7.7% of respondents 50 - 64 did not report a crime to the police, followed by 5.6% of respondents 65 - 74 and 3.4% of respondents 75 or older.

VICTIM of CONSUMER FRAUD

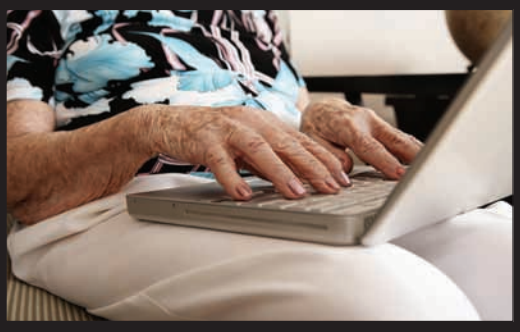
Respondents were asked whether or not they have been a victim of consumer fraud or identity theft in the last 12 months.

A preponderance of respondents (90.5%) were not a victim of consumer fraud or identity theft in the past year. 9.5% report that they were a victim; this is a 1.5% decrease from the 2006-2008 survey. Using population projections, there were nearly 85,000 potential victims, over the age of 50, of consumer fraud or identity theft in the last 12 months.

This group of victims may be further identified:

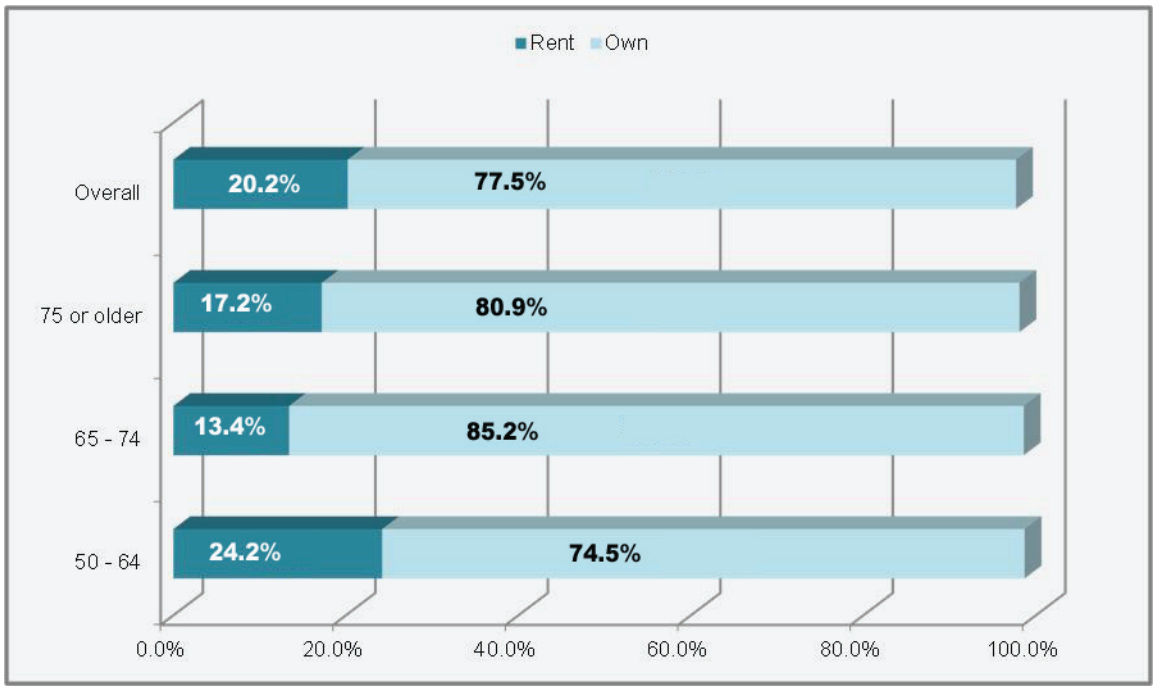
- 65.5% are between the ages of 50 - 64
- 24.7% are between the ages of 65 - 74
- 9.8% are 75 or older
- 50.0% of these victims are male
- 50.0% of these victims are female
- 70.8% reside in Clark County
- 20.7% reside in Washoe County/Carson City
- 8.5% reside in rural Nevada counties
- 93.7% have access to a personal computer
- 97.1% have access to the internet
- 80.0% use the internet daily or several times a day

The relationship between each of these categories; age, gender, county of residence, access to a computer, access to the Internet and Internet usage; and being a victim of consumer fraud and identity theft is statistically significant at a chi-square of .000.



Most respondents were not victims of consumer fraud in the past year, but 9.5 percent were, 1.5 percent increase from a 2006-08 survey.

RENT vs. OWN



* Percentages may not add up to 100%; “don’t know” and “refuse” are not included

77.5% of respondents indicate that they own their own homes, while 20.2% are renters. As indicated in an earlier questions, the average monthly mortgage/rental cost is $1203. This is up 4.3% from the 2006 - 2008 survey. The majority of respondents in each age group; 50 - 64 (74.5%), 65 - 74 (85.2%) and 75 or older (80.9%); own their home. The age group with the highest occurrence of renters is 50 - 64 (24.2%).

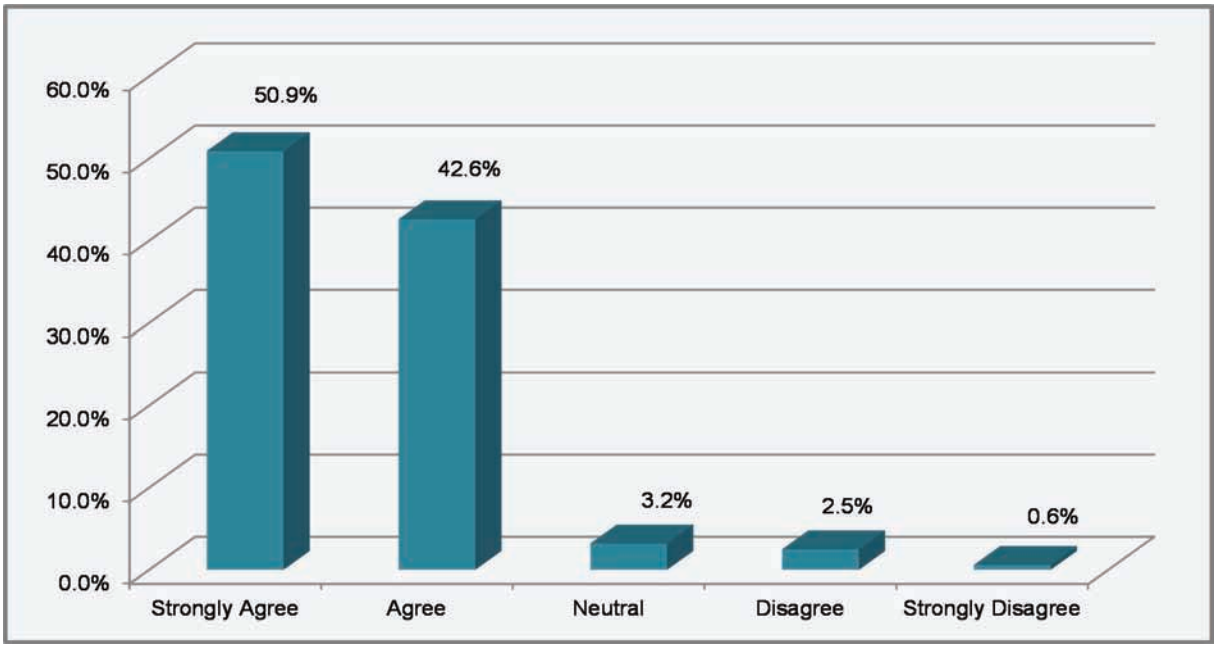
80.4% of male respondents currently own their home, as compared to only 74.8% of female respondents. Furthermore, married (87.6%) respondents are far more likely to own their home than respondents who are not married (63.6%).

When looking at the data by county, 84.1% of respondents who reside in rural Nevada counties own. This is compared to 77.3% of respondents in Washoe County/Carson City and 76.4% of respondents who reside in Clark County.

Each of these categories — age, gender, marital status and county of residence — produces a statistically significant relationship with respondent status of owning or renting a home. Each of these relationships is significant with a chi-square of .000.

CONDITION of the HOME

Respondents were asked how much they agree or disagree with the following statement:
"My home is in good condition and well maintained."



Overall, a vast majority (93.5%) of respondents "agree" (42.6%) or "strongly agree" (50.9%) with the statement. This represents approximately 836,000 Nevadans over the age of 50. On the other hand, 3.1% of respondents either "disagree" (2.5%) or "strongly disagree" (0.6%) with the statement, indicating that approximately 27,700 homes are not in good condition or well maintained.

- 92.6% of respondents age 50 - 64 "agree" or "strongly agree" with the statement.
- 95.4% of respondents age 65 - 74 "agree" or "strongly agree" with the statement.
- 94.5% of respondents age 75 or older "agree" or "strongly agree" with the statement.
- 96.9% of married respondents "agree" or "strongly agree", as compared to only 88.7% of non-married respondents.
- Male (93.9%) and female (93.3%) respondents are equally likely to "agree" or "strongly agree."
- Residents of Clark County (93.8%), Washoe County/Carson City (93.9%) and rural Nevada counties (91.9%) are nearly equally likely to "agree" or "strongly agree."

NEVADA DRIVER'S LICENSE

- 89.8% of respondents have a current Nevada driver's license
- 91.3% of respondents age 50 - 64 have a current Nevada driver's license
- 91.7% of respondents age 65 - 74 have a current Nevada driver's license
- 82.2% of respondents age 75 or older have a current Nevada driver's license
- 92.4% of male respondents have a current Nevada driver's license
- 87.4% of female respondents have a current Nevada driver's license

MODE of TRANSPORTATION

Respondents were asked, *"How do you usually get to the places you need to go?"*

Mode of Transportation	Percentage
Drive my own vehicle	86.0%
Drive with a friend or family member	9.0%
Bus	2.9%
Paratransit	1.2%
Walk	0.6%
Taxi	0.2%

The vast majority (86.0%) of respondents drive their own vehicle to get to the places they need to go. Another 9.0% of respondents drive with a friend or family member. 2.9% of respondents use bus services to get around, while 1.2% use paratransit services. Less than 1% of respondents walk (0.6%) or take a taxi (0.2%).

When looking at the data by age, the most notable difference is that 75.0% of respondents age 75 or older drive their own vehicle, as compared to 88.6% of respondents age 50 - 64 and 88.5% of respondents age 65 - 74. Furthermore, respondents age 75 or older (19.7%) are much more likely to identify driving with a friend or family member, as compared to respondents age 50 - 64 (6.7%) and 65 - 74 (7.1%).

When looking at the data by gender, male (91.3%) respondents are more likely than female (81.0%) respondents to identify driving their own vehicle, whereas female (13.5%) respondents are more likely than male (4.4%) respondents to ride with a friend or family member.

MONTHLY SOCIAL ACTIVITIES

Respondents were asked to quantify the approximate number of times per month that they visit or attend the following: social events, shopping, family, casino and worship.

Overall Mean:

■ Social Events - 3.75 ■ Shopping - 7.37 ■ Family - 5.51 ■ Casino - 2.28 ■ Worship - 2.08

Social Activity	50 - 64	65 - 74	75 or Older
Social Events	3.37	4.57	3.81
Shopping	7.35	7.31	7.52
Family	5.62	4.89	6.35
Casino	2.17	2.67	2.31
Worship	2.11	1.89	2.07

Respondents in the 65-74 age group attend the highest average number of social events per month (4.57). These respondents also report going to a casino (2.67) more times per month than respondents in the other age groups, but are the least likely to report attending worship activities (1.89).

Respondents aged 75 or older go shopping an average of 7.52 times per month, the highest reported average among age groups. Respondents in this age group also visit or see family (6.35) more often than respondents age 50-64 (5.62) and age 65-74 (4.89).

Those respondents in the 50-64 age group are the most likely to report attending worship (2.11) activities in a month. These respondents are the least likely to go to a casino (2.17) or attend social events (3.37).

Respondents aged **75 or older** go **shopping** an average of 7.52 times per month, **the highest reported average** among age groups.

Social Activity	Male	Female
Social Events	3.80	3.70
Shopping	7.56	7.18
Family	5.37	5.65
Casino	2.72	1.87
Worship	1.61	2.54

Male (3.80) respondents and female (3.70) respondents report attending a nearly equal number of social events per month. Male (7.56) respondents are slightly more likely to go shopping during the month than female (7.18) respondents. On the other hand, female (5.65) respondents are slightly more likely to visit or see family than male (5.37) respondents each month.

Male (2.72) respondents are more likely to report going to a casino during a month, whereas female (2.54) respondents indicate a higher average for attending worship activities each month.

Social Activity	Clark County	Washoe County/ Carson City	Rural Nevada Counties
Social Events	3.54	4.43	3.76
Shopping	7.36	7.65	6.90
Family	5.67	5.16	5.26
Casino	2.67	1.59	1.31
Worship	2.05	2.23	2.02

Respondents who reside in Clark County report the highest average number of visits to a casino (2.67) each month. These respondents are also slightly more likely to visit family (5.67) than respondents in Washoe County/Carson City (5.16) and respondents in rural Nevada counties (5.26). Respondents who reside in Clark County report the lowest monthly average for attending social events (3.54).

Respondents who reside in Washoe County/Carson City attend an average of 4.43 social events each month, the highest reported average among county of residence. These respondents also go shopping an average of 7.65 times per month and attend worship activities 2.23 times each month.

Respondents in rural Nevada counties have the lowest average number of shopping (6.90) trips each month. These respondents also report the least number of casino (1.31) visits and the lowest average for attending (2.02) worship activities.

Social Activity	Not Married	Married
Social Events	3.70	3.70
Shopping	7.18	7.85
Family	5.65	5.54
Casino	1.87	2.17
Worship	2.54	2.32

Respondents report attending an average of 3.70 social events each month, regardless of being married or not married.

Married respondents report a higher average for number of shopping (7.85) trips each month and number of visits to a casino (2.17) each month. Respondents who are not married — meaning divorced, separated, widowed or never married — indicate visiting family (5.65) and attending worship (2.54) activities more often than married respondents.

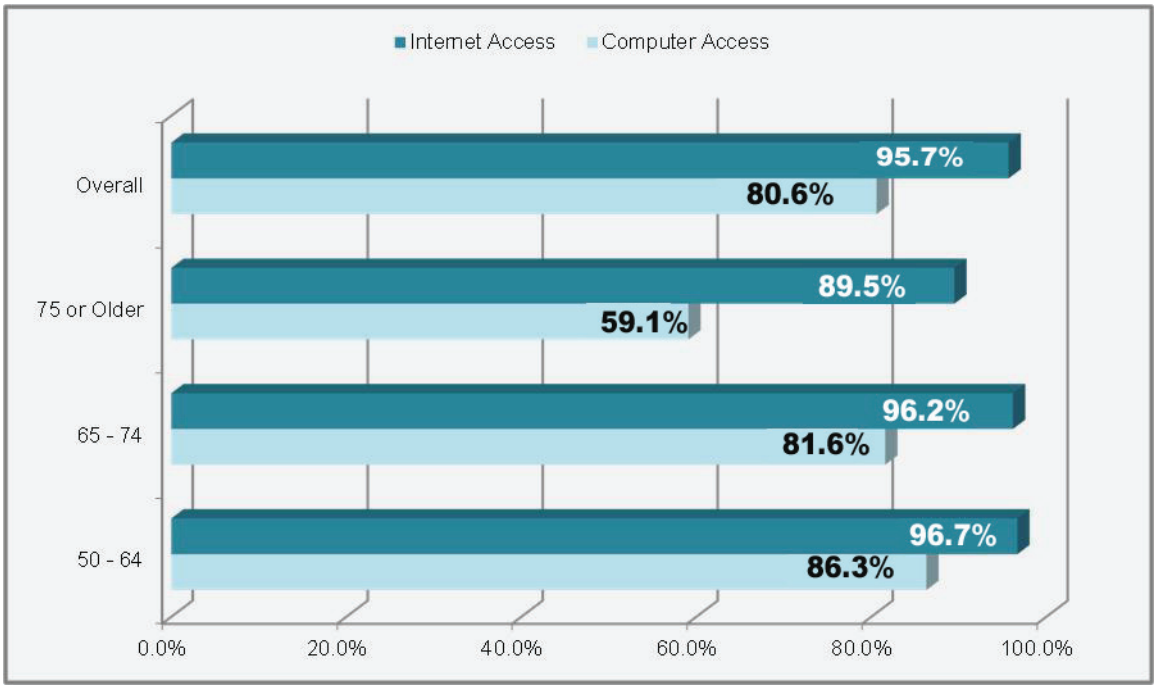
Social Activity	Non-Caregivers	Caring for 60 +	Caring for <18	Caring for Both
Social Events	3.75	5.44	1.86	2.73
Shopping	7.29	7.54	7.21	15.04
Family	4.81	7.04	11.19	8.01
Casino	2.11	2.93	3.59	1.26
Worship	1.96	2.62	2.82	2.08

Respondents who care for both someone over the age of 60 and under the age of 18 make an average of 15.04 shopping trips each month. This is the highest average number of shopping trips for all groups considered thus far.

Similarly, respondents who care for someone under the age of 18 visit family an average of 11.19 times each month. This average is higher than all other groups. These respondents also attend only 1.86 social events each month on average. This is lower than any other reported average.

Respondents who care for someone over the age of 60 attend an average of 5.44 social events each month. Respondents who are non-caregivers are the least likely to visit family (4.81) or attend worship (1.96) activities each month.

COMPUTER and INTERNET ACCESS



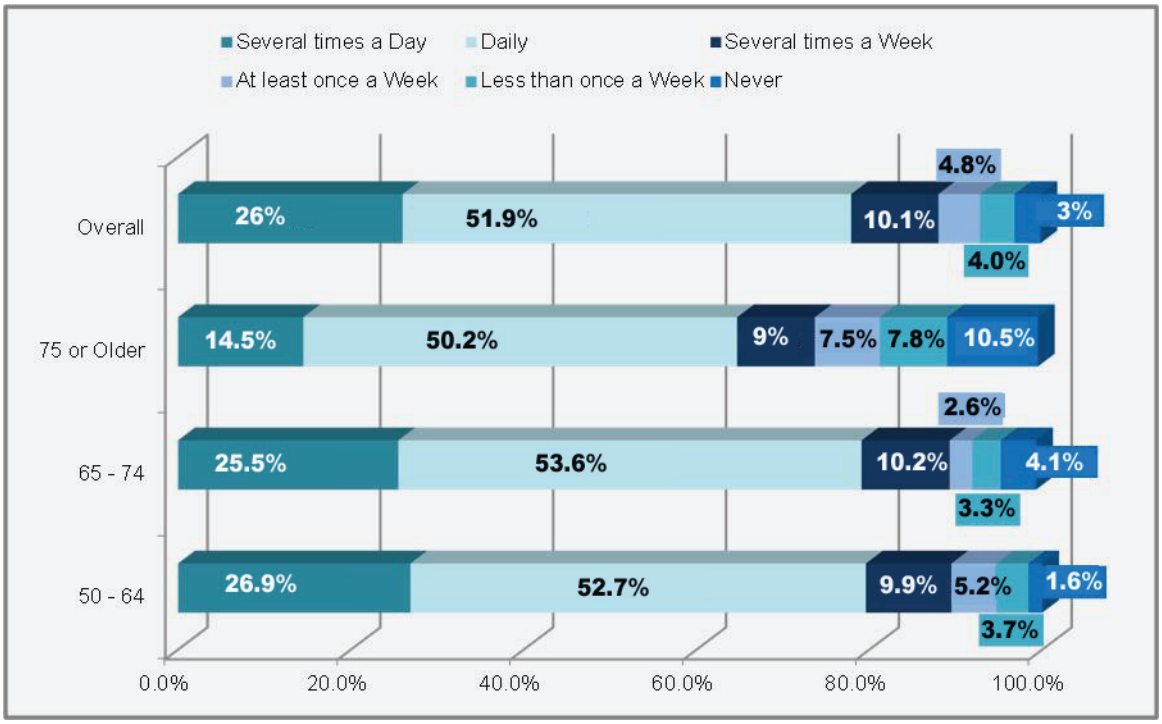
Overall, 80.6% of respondents have access to a computer. This represents approximately 720,700 Nevadans over the age of 50. The percentage of respondents who have access to a personal computer has increased by 4% since the 2006 - 2008 survey. The relationship between access to a computer and age is statistically significant at a Pearson's Chi-Square of .000, as is the relationship between access to a computer and gender (.000).

When looking at the data by age, 86.3% of respondents age 50 - 64 and 81.6% of respondents age 65 - 74 have access to a personal computer. Respondents age 75 or older (59.1%) are far less likely to have access to a computer. Male (83.2%) respondents are slightly more likely than female (78.2%) respondents to have access to a computer.

Overall, 95.7% of respondents have access to the Internet. Using population estimates, approximately 856,000 Nevadans over the age of 50 have access to the Internet. This percentage has not changed from the 2006 - 2008 survey. The relationship between access to the Internet and both age and gender is statistically significant at a Pearson's Chi-Square of .000.

Respondents in the 50 - 64 age group (96.7%) and the 65 - 74 age group (96.2%) are equally likely to have access to the Internet. 89.5% of respondents 75 or older have access to the Internet. Male (96.3%) and female (95.1%) respondents are nearly equally likely to have access to the Internet.

FREQUENCY of INTERNET USE



Overall, a vast majority (77.9%) of respondents use the Internet daily (51.9%) or several times a day (26.0%). 10.1% of respondents use the Internet several times a week and 4.8% use the Internet at least once a week. Only 4.0% of respondents use the Internet less than once a week and 3.0% never use the Internet.

When looking at the data by age, respondents in the 50 - 64 (79.6%) age group and the 65 - 74 age group (79.1%) are equally likely to use the Internet daily or several times a day. Respondents in these age groups, 50 - 64 (9.9%) and 65 - 74 (10.2%), are also nearly equally likely to use the Internet several times a week. Respondents age 65 - 74 (4.1%). However, are much more likely to never use the Internet than those aged 50 - 64 (1.6%).

A majority (64.7%) of respondents age 75 or older use the Internet daily (50.2%) or several times a day (14.5%). Respondents in this group, however, are the most likely to never (10.5%) use the Internet. Respondents age 75 or older are also equally likely to use the Internet at least once a week (7.5%) or less than once a week (7.8%).

SOURCES of INFORMATION

Respondents were asked, *"If you need information about the service available to persons over the age of 60 in the State of Nevada, either for yourself or someone else you are caring for, who do you contact for information?"*

Rank	Information Source	Percentage
1	Internet	52.7%
2	Doctor/Medical Provider/Insurance Company	22.8%
3	Family/Friends	19.8%
4	Senior Center/Community Organization/Service Provider	12.3%
5	Phonebook or 211 Information	11.6%
6	County Social Services	8.7%
7	State Agency/Government Official	8.5%
8	AARP	7.4%
9	Print Material (Newspaper, Magazine, Book)	6.7%
10	Library	4.0%
11	Church or Place of Worship	3.5%
12	TV or Radio	3.3%
13	Veteran's Administration or Military	1.3%
14	Work	0.8%

* Percentages may not add up to 100%; "don't know" and "refuse" are not included

The percentages and rankings provided in the table above are based on the subset of respondents who were able to mention at least one source (N = 979). 18.9% (N = 226) did not mention a source.

Internet was the number one reported source of information indicated by over half (52.7%) of the respondents. The second most common source of information was a doctor, a medical provider or a health insurance company (22.8%). 19.8% of respondents would seek information from family or friends. This was followed by 12.3% who would go to a senior center, community organization or service provider for information and 11.6% who would look in the phonebook or call 211 for information. Respondents are nearly equally likely to get information from County Social Services (8.7%) or from a State Agency or Government Official (8.5%). 7.4% indicated they go to AARP for information and 6.7% would find information in print material, such as a newspaper, magazine or book. Less than 5% of respondents selected each of the following sources of information: library (4.0%), church or place of worship (3.5%), TV or radio (3.3%), Veteran's Administration or Military (1.3%) or work (0.8%).

Random-digit-dialing (RDD) technique was used to conduct this survey. Using this method respondent households were selected throughout the State of Nevada with information developed using the most current telephone exchange data available. (Telephone exchanges may be thought of as the three-digit "prefix" included in any telephone number.) The sample was purchased from Survey Sampling, Inc. (SSI). Survey Sampling maintains a database of "working blocks," where a "block" is a set of 100 contiguous numbers identified by the first two digits of the last four digits of a telephone number. After the blocks are verified to contain residential phone numbers, phone numbers are randomly generated from each block. This procedure allows the inclusion of unlisted numbers and any newly listed numbers that have not been included in the most recently published telephone directories.

SAMPLING and WEIGHT ESTIMATION

The sample for this study was drawn from phone numbers in three areas within the state of Nevada. Clark County (Area 1), Washoe County and Carson City (Area 2) and all remaining areas made up the third (Area 3). Areas other than Clark County were over sampled relative to their population sizes. A weight was designed to account for this difference. A higher proportion of females was encountered in the sample than was indicated by the state data, therefore, gender adjustments were made. The weight was constructed using age and sex data obtained from the US Census Bureau's American Community Survey that was conducted in 2008. From these figures, an estimate of the 50-and-over population in each of the sample areas was obtained, as well as the overall gender balance in each area. Each case was then assigned a multiplier based on its area and gender, and its prevalence in the sample relative to its prevalence in the estimate.

For survey year 2010, interviewers from the Cannon Survey Center made telephone calls during the period of January 2010 through April 2010 in order to complete 1,205 interviews with residents of Nevada over the age of 50. Using population estimates obtained from the Nevada State Demographer and based on 2010 projections, the number of residents in Nevada over 50 years of age is approximately 894,147. To be eligible to take the survey, the respondent had to be at least 50 years of age and a resident of Nevada and all households reached were screened for these criteria.

A sample of 1,205 yields a sampling error for the entire survey of +/- 3% at the 95% confidence interval. The sample was further stratified to include the following: completion of 787 surveys with residents who live in Clark County (Area 1), 247 surveys were completed in Washoe County/Carson City (Area 2), and 171 surveys were completed in rural Nevada (Area 3). Using the American Association for Public Opinion Research (AAPOR) formula (RR3) a response rate of 37% was achieved.

SURVEY INSTRUMENT

The survey instrument was designed by Pamela Gallion and was composed of approximately 86 questions. Some questions were obtained from the Behavioral Risk Factor Surveillance System (BRFSS), others from the National Crime Victimization Survey, and others were obtained from various survey instruments that have been used to gather information in Nevada in the past. Fixed response questions were numerically pre-coded into response categories. Open-ended questions were used when numbers were required as answers (e.g. how much money did you spend on medical care in the past year) or when the response categories were not adequate to allow for the full range of possible attitudes, opinions or information. CSC adapted the questionnaire for use with the CATI (Computer Assisted Telephone Interviewing) system using SawTooth software.

The survey was administered under the direction of Pamela Gallion, director of the Cannon Survey Center, by the CSC staff of 27 professional telephone interviewers who were under the supervision of Mr. Taylor Moseley, data collection supervisor for the CSC. The survey was administered in a professional, centralized phone bank facility with 24 calling stations located on the Paradise Campus of UNLV. Calls were made Mondays through Fridays between the hours of 8:30 a.m. to 7:00 p.m., and on Saturdays between the hours of 10:00 a.m. to 4:00 p.m. Up to 12 attempts were made on each number; these attempts were made on different days of the week and at different times of the day in an attempt to maximize the response rate.

Any questions regarding this research project or summarized results should be directed to:

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UNIVERSITY OF NEVADA COOPERATIVE EXTENSION

UNCE was founded in 1914 through the Smith-Lever Act as a partnership between the federal government, land-grant universities and county governments. Today, this partnership agreement is still intact, with additional funding provided through grants, contracts and gifts to expand program offerings.

Cooperative Extension's mission is to "discover, develop, disseminate, preserve and use knowledge to strengthen the social, economic and environmental well-being of people." Campus-based and community-based faculty work cooperatively with local leaders, volunteers and organizations to identify needs, establish priorities, design and implement educational efforts, and evaluate program outcomes and impacts. Applied research is conducted to gain new knowledge, solve practical problems and meet specific community needs. Journal articles, peer-reviewed curriculum guides and other publications are the result of programming and research efforts. These publications, as well as program and impact information, can be accessed at: http://www.unce.unr.edu

UNCE's 20 individual offices throughout the state serve as local campuses of the University of Nevada, providing citizens with information about university programs. Because Cooperative Extension's more than 200 personnel live and work in these communities, UNCE is well-positioned to bring community needs to the attention of university personnel who can help solve local problems. The issues have changed over the years, but the need to extend university research out to the state remains constant.

Just as it did nearly 100 years ago, UNCE still helps farmers and ranchers manage water resources, control noxious weeds and resolve public-land disputes. But Extension also helps strengthen families, foster a healthy environment and enable people and communities to prosper. In this way, UNCE serves as a "gateway" linking university resources to meet the needs of communities throughout Nevada. It develops educational programs through public presentations, workshops, demonstrations, publications, the Internet, interactive video and satellite broadcast technologies, delivering knowledge directly to Nevadans' homes and communities. By "bringing the university" to all Nevadans to foster their lifelong learning, UNCE helps fulfill the institution's land-grant mission.