

DEPARTMENT OF HEALTH AND HUMAN SERVICES
NATIONAL INSTITUTES OF HEALTH

Enhancing the quality of LIFE in a dementia care
assisted living environment

Witness appearing before the
Senate Special Committee on Aging

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Silverado Senior Living

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OVERVIEW

Today, over five million people in the United States have some form of memory impairment. That number is expected to reach 14 million by the year 2040. The rapid increase in Alzheimer's cases, the stress the disease places on individuals and families, and the intensity of care required as memory impairment progresses have healthcare and public policy experts agreeing that America faces an "Alzheimer's crisis." At Silverado, we are dedicated both to providing extraordinary services to those in our charge as well as to making a positive impact on how America and the world cares for the memory-impaired.



Silverado Senior Living cares for people with all types of memory-impairing diseases, including Alzheimer's, Parkinson's, and others. We provide the full continuum of memory impairment care, from the disease's early onset through the end of life. Our services encompass dementia care assisted living for those with memory disorders, home care, care management, and hospice care. Silverado is consistently recognized as the leader and innovator in the \$110 billion assisted living industry's memory-care niche. This stature

is borne out by our partnerships and programs with universities conducting dementia research, including University of California at San Diego, UCLA, University of Southern California, Baylor University, Stanford University, the University of Utah, and many others.

Founded in 1996 and opening its first dementia care assisted living community in June 1997, Silverado now operates 20 memory-impairment communities with 1,578 beds in four states. Silverado has five home care offices and eight hospice offices. In addition, Silverado offers skilled rehab services focused on the memory impaired in two of its communities, one in Dallas, Texas and the other in Salt Lake City, Utah.

Our main customers are individuals with memory impairments and their families, and those in need of hospice care. We serve this population in the setting of their choice; be it their current personal home, a Silverado or other residential living environment or skilled nursing facility. We also serve the general medical community by providing services to their patients and clients.

ENHANCING QUALITY OF LIFE

Providing care for our aging population, especially for those with memory impairing diseases is more than just meeting their medical needs. It's about providing for their psychosocial needs as well. It includes providing and supporting a quality of life that brings life-affirming meaning and fulfillment to them daily.



In an assisted living setting, enhancing quality of life requires the following elements be in place in order to create and maintain a supportive and life enriching environment:

1. A philosophy of care which promotes independence, choice, dignity and daily purpose for each resident.
2. Quality and compassionate staffing who are trained to meet the unique needs of this population.
3. A strong supportive company culture which is clear to all staff. A culture where the operating philosophy of love is greater than fear prevails.
4. Environment. Providing a social setting which is comfortable, home-like and attractive.
5. Programming. Age appropriate engaging activities which promote self-worth, involvement and purpose.
6. Coordination with care practitioners. A comprehensive plan designed in conjunction with primary care practitioners all working as a team in order to create a holistic approach to individuals needs.

In the case of Silverado, a seventh element is also included: clinical services. Silverado is different than most traditional assisted living providers in that it has licensed nursing on-staff 24 hours per day seven days per week. Our clinical programs are described in more detail below.



PHILOSOPHY OF CARE

The Silverado philosophy of care and company vision is to “give life.” Our purpose is to change the world in the way people with memory-impairing diseases are cared for. In the process, we seek to touch the human spirit in all that we do. In addition we subscribe to a philosophy that there is “dignity in risk” which means allowing residents to continue to engage in those activities that they feel are rewarding and challenging to them.

QUALITY AND COMPASSIONATE STAFFING

Silverado has a strong clinical team in each of the communities. A registered nurse is on-site full time as the Director of Health Services, and licensed nurses are also on-site 24 hours a day, 7 days a week. We recognize that people with dementia are unable to articulate when they are in pain or becoming ill and they may also have other chronic medical conditions. Silverado's clinical team is available to do timely assessments, communicate with the primary care physicians and provide follow up to acute illnesses.



At Silverado, we truly wish to change how the world sees and cares for people with Alzheimer's Disease and other forms of memory impairment. We know that we can only achieve this goal by providing an extraordinary workplace that attracts and retains the passionate people who share Silverado's vision. We say this for two reasons. First, our employees are the ones who directly touch the lives of the memory-impaired, day and night, seven days a week. Our ability to offer life-affirming care depends entirely on hiring and keeping the best, most dedicated workforce.

Further, with the aging of baby-boomers, our nation is facing a work-force crisis. Unless employers innovate, there won't be enough qualified people to care for this coming generation of elders. Moreover, as the number of seniors grows, so will the number of those needing memory impairment care. Memory disorder affects one in 10 people over 65, 22.4% of those aged 75 or more, and nearly half over 85. And the truth is that providing meaningful care for those with Alzheimer's and other forms of memory impairment is not something everyone is suited to do. It takes dedication and the ability to look within each person to see the individual still there. If we can offer a workplace that is among the nation's best, a place where associates clearly love what they do and experience fulfilling careers, we believe we can inspire more people to perform this vital work.



ENVIRONMENT/MODELS OF CARE

The Seniors Housing industry provides various options in living settings and models of care that an individual can choose. Options include Independent Living, which is a residential setting for active seniors. Assisted Living, a residential setting where assistance is provided for activities of daily living (ADLs) such as bathing, dressing, grooming needs, etc. Skilled nursing, generally a long term living setting where residents are also cared for who require more intensive skilled nursing interventions daily.

The Silverado model of care is different than most traditional settings in that it focuses on creating an attractive, social home-like residential setting in addition to an intensive clinical model of care “in the background.” This model of care includes a physician medical director who is typically board certified in their medical specialty, a full time registered nurse as our Director of Healthcare services, licensed nurses around the clock seven days per week. In addition we have Masters prepared social workers to assist residents and families with support services, counseling and other assistance as needed.



When Silverado was first opened, its founders said, “What can we do to make this more like a home, more like a place we could actually live in? We all are animal lovers and couldn’t imagine our homes



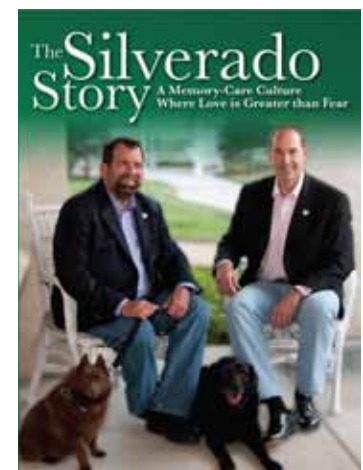
without our pets. So naturally we brought pets into all our assisted living communities.” At a time when animals in assisted living communities were considered dangerous and unclean, Silverado broke ground and declared the benefits outweighed the risks. “We have seen time and time again how animals bring life to our residents. Pets are proven to reduce anxiety and depression in settings where they are used. They are truly a wonder.” And, in fact, pets are now included in all of our service lines.”

Associates can also bring their children to work, in the belief that an integrated, intergenerational program benefits our residents. Many residents will engage in activities with our children, bringing laughter and vigor throughout our communities. It is also good for the children to learn to appreciate the elderly and not be afraid of people with memory-impairing disease. It gives them an understanding of what 21st century care for the elderly looks like.

PROGRAMMING

Silverado’s unique **Normalization Programming** is the foundation to the critical element of helping each individual find purpose and meaning in their daily lives. Normalization is core to the Silverado culture and beliefs. For additional information on Silverado’s Normalization philosophy and program, please read more in the “The Silverado Story, A Memory-Care Culture Where Love is Greater than Fear.”

“Normalization” refers to responding to a person with Alzheimer’s Disease no differently than one would respond to a person that society considers “normal” in behavior and mental capacity. This concept originated in the acclaimed work of Scandinavian academic Bengt Nirje





and was further developed by Dr. Wolf Wolfensberger with the developmentally disabled. For Dr. Wolfensberger, what he lived through as a child in World War II Germany led him in his adult life in America to explore how apparently good people could do bad things. How could the abuses uncovered in state facilities for the mentally handicapped in the 1970s possibly have happened, when each person on the staff seemed well-intentioned?

The explanation: these things occur when social structures allow certain groups of people to become devalued. Once a person is considered “not normal,” he or she loses worth in the eyes of those whom society thinks of as “normal,” or valued. From there, it’s an easy next step to begin treating that person in ways that would be unthinkable otherwise.

Silverado Chief of Culture and Co-founder, Steve Winner brought the concept of normalization to the company and refined it, and we are one of the few memory-care organizations to use it. Normalization – the resolute commitment to treat the memory-impaired as “normal and valued” and to forestall any thought or action suggesting they are “not normal and thus devalued” -- is fundamental to our mission of providing LIFE and life-affirming care.

Walk through a typical memory-care community and you’ll see the staff has given the residents blocks to play with and baby dolls to hold, as though memory impairment has cast these adults back into early childhood. Besides being un-fulfilling for the people involved, it causes those around them to treat them as something other than adults. After all, it isn’t “normal” to see a six-foot-tall man playing with toys. As was proven by the work of Bengt Nirje and Wolf Wolfensberger with the developmentally disabled, once one starts perceiving the memory-impaired this way, it’s easy to let the normalcy of their lives erode. As Mr. Winner puts it, “After a while, you start thinking it doesn’t matter if Mr. Smith is walking outside with no shoes on, because he’s not a regular person. You begin to believe that he is less valuable than so-called normal people. This is how attitudes evolve that can ultimately lead to elder abuse. Besides the issue of abuse, it’s the compelling question of maintaining human dignity.”

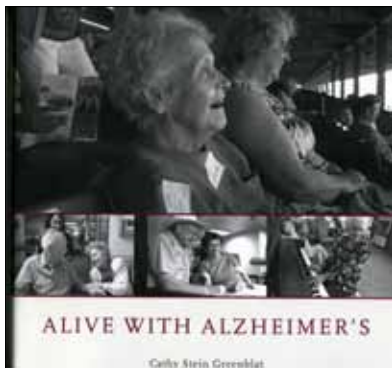


Walk around a Silverado community, and you will find residents taking part in normal adult activities that relate to their life-long interests. Woodworking, cooking, and gardening clubs are just a few of the things Silverado residents take part in every day. Rather than handing a resident a baby doll to hold, he or she is given a real baby to cradle (thanks to our policy encouraging our employees to bring their children to work with them).

Practices that are common in memory-care, but would be demeaning to any adult, are not permitted. There are no signs on the walls of residents' rooms about their personal hygiene habits or need for physical assistance. Residents' undergarments are stored neatly out of view in dressers, not heaped in plain sight next to their beds. All of these things are kept private, just as any "normal" adult would wish.

We also focus on keeping connected to the people our residents have been throughout their lives. Residents' rooms are decorated with things that express their achievements: their diplomas, personal photos, and other mementos are constant reminders of who these people were and still are, even if their communication and behavior are no longer what's thought of as "normal."

Recently, a second segment has been added to the normalization program. It's a **peer-evaluation review**, in which associates from one Silverado community visit another one, for a day long review, to rate whether there are any normalization gaps, and if so, discuss how to correct them.



Silverado's culture and practices are so distinctive that they are the subject of the profoundly moving book "Alive with Alzheimer's," the first-ever photographic book on the disease that was written by a sociologist with a B.A. from Vassar College and a Ph.D. from Columbia University, she is currently Professor Emerita of Sociology at Rutgers University, a Visiting Researcher at the International Observatory of End of Life Care (IOELC), University of Lancaster, UK, , and an Artist in Residence at the Hospital Network of Nice, France (CHU de Nice) and published by the University of Chicago

Press in 2004. The book has now been translated into German and Japanese; the photos have been displayed all over the world, including at the Alzheimer's Association's international conference in Kyoto, Japan.

Just one compelling example of how our unique approach touches the human spirit and transforms lives is that of Edith, a memory-impaired woman who was bedbound, unresponsive, terribly feeble, and, frankly, considered near the end of her life when she was brought to the Silverado Senior Living - Escondido community. We surrounded her with music and pets; in fact, our Social Worker discovered that she loved cats so a Silverado cat was assigned to Edith and placed in her lap upon move-in. Our staff spoke to her even though she could not speak back; reduced the overly-large number of medications she was being given in the effort to "control" her symptoms and behavior; and started the process of getting her out of bed to take a few steps.

Within four weeks, Edith regained the ability to walk on her



own. The book shows her sitting in the stands of southern California's Del Mar Race Track, talking and laughing with a group of fellow Silverado residents on an outing there having walked on her own! We are proud to say that Edith's story has replicated throughout Silverado over 3,600 times so far. Edith passed away peacefully at Silverado in 2010.

Silverado's Engagement Team also receives extensive training on how to provide age-appropriate engagement activities for residents. Engagement activities often take place in a "club-like" format, which is familiar to the generation that lives at Silverado. The activities of the clubs will be structured to match the abilities of the residents and each resident leaves the activity feeling successful. Silverado's dementia residents participate in active programs such as golf, swimming, bicycle riding, walking, and even service clubs. We also have the Wii as an activity for our residents, who enjoy the bowling, golf, tennis, and other programs on the Wii.

At Silverado, people with early or mild dementia have social and cognitive-stimulating activities designed specifically for their abilities. We have specific neighborhoods and programming for residents with mild cognitive deficits.



Read article at:
http://www.silveradosenior.com/newspaper_2009_wall_street

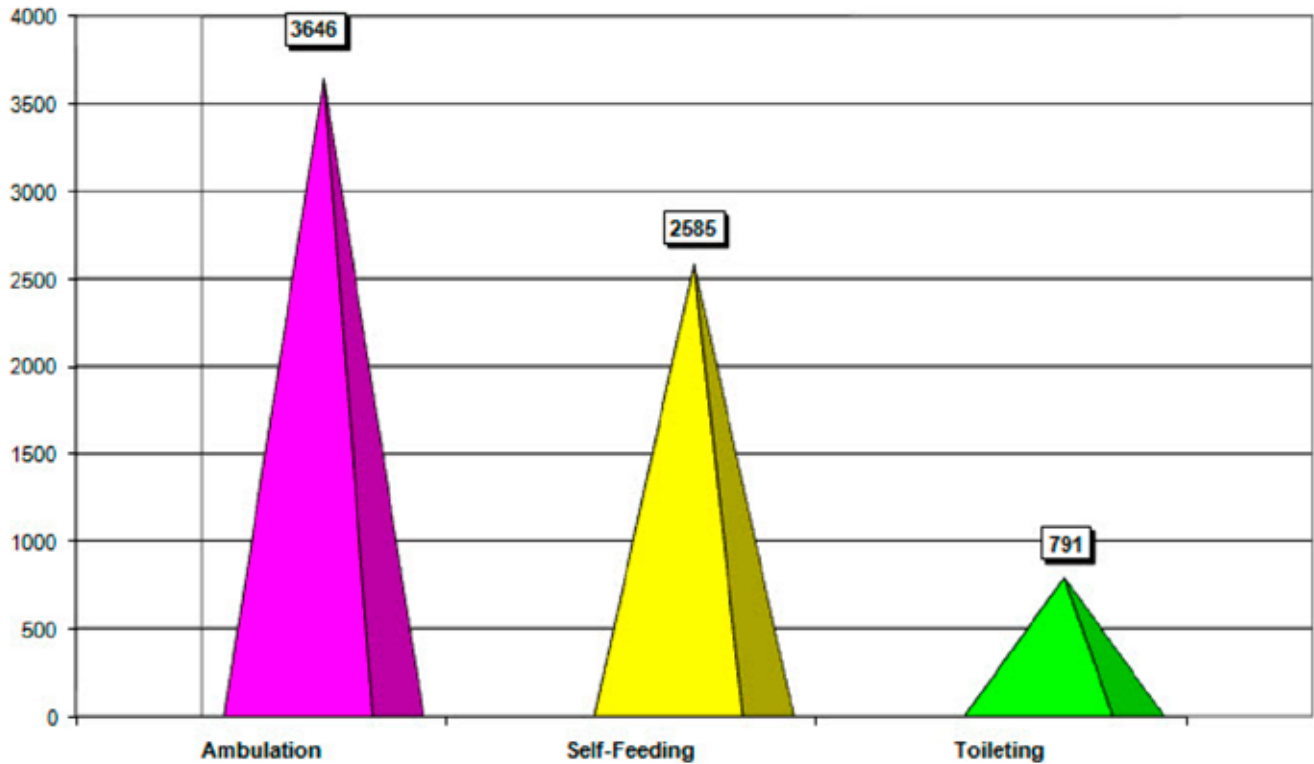
CLINICAL SERVICES - IMPROVING BEHAVIORS

Because of Silverado's specialty and high level of qualified staff, we often receive referrals to care for those that demonstrate the most challenging behaviors and require more intensive assistance.



Dementia residents often suffer difficult behaviors, due to confusion, pain, anxiety, hallucinations, adverse medication effects, or other causes. These types of behaviors are very distressing for both the residents and their families. At Silverado, the use of psychotropic medications is minimized and physical restraints are never used. Rather, Silverado's staff is trained to see resident behaviors as an expression of a "need" and our Behavior Intervention Program helps to uncover the cause of the agitation or other behavior. Since 2006, over 1000 residents have had interventions to help them feel peace of mind and decrease their agitated or aggressive behaviors. Silverado's intervention also substantially reduces behavioral health, strain on the family, primary care practitioners, hospitalizations, improving the residents quality of life, reducing and saving thousands of dollars of expense.

Silverado Senior Living Resident Improvement Outcomes September 1999- October 2010



Silverado has developed extensive clinical outcome measures that provide the following benefits:

- Documentable evidence based results showing quality of care and quality of life benefits
- Provides a management tool to benchmark Silverado communities against each other
- Demonstrates cost savings to the payer

At the start of the company in 1997, Silverado collected data on use of:

- Psychotropic medications
- Feeding
- Ambulation
- Weight gain/loss
- Falls

In the case of psychotropic medication use, we record each of our 1250 plus residents' use of medications each month separating the medications by the following categories:

- Anti-anxiety medication rate
- Anti-psychotic medication rate
- Sedative hypnotic medication rate

Percent of falls with/without Injury 1999-2010

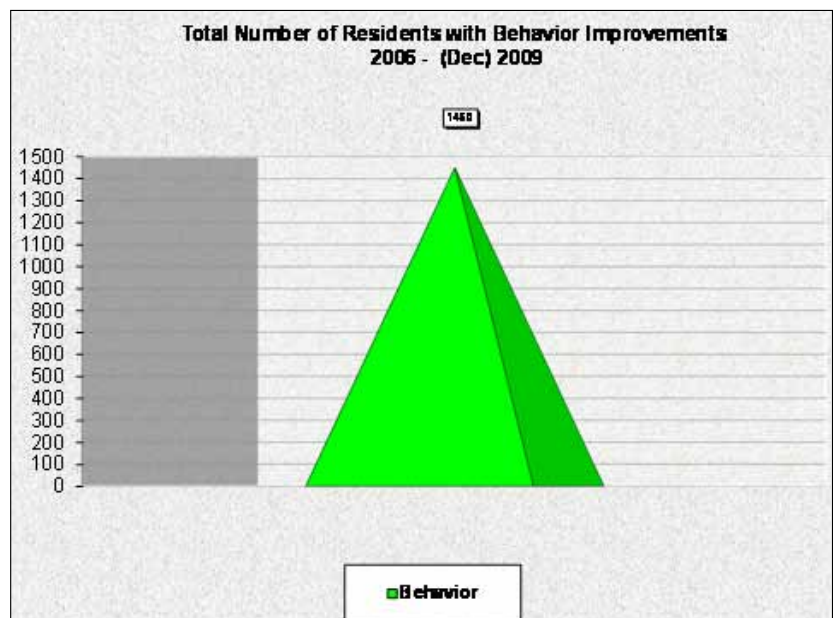


Every resident is assessed using the “Cornell Scale for Depression in Dementia” or similar tool. We find that about 60% of residents need treatment for depression.

Because of our excellent results in serving the most challenging behavioral cases and our expertise in serving complex diagnoses like frontotemporal dementia (Pick's Disease), Lewy-Body dementia, etc., we are the number one referral choice for behavioral health hospitals, other assisted livings, skilled nursing and cognitive assessment centers. Taking the cases that others cannot handle, we experience an overall reduction in the psychotropic medication use for controlling behaviors of over 30% across the company.

Over the years, our clinical outcome scores were expanded to include:

- Pressure wounds
- Rate of transfer to acute care
- Per unit of residents on hospice
- Percent of resident deaths on hospice care
- Number of prescription medications residents take



Other clinical outcome results include:

- Reducing residents from the 9-12 prescription medications they move-in with to an average of 5.5, compared to skilled nursing at 12, and traditional assisted living of 7-8 prescription medications.
- While it is estimated that 6-8% of people with dementia fall and fracture each year including people within settings that restrain them, Silverado has a fall with fracture rate of only 1% without restraining people.
- Compared to nursing homes where 10-20% of falls cause serious injury, at Silverado only 4.8% of falls cause serious injury.

An example of our specialized model of care to provide the best quality of life to our residents, we established the **Grand Rounds Behavior Intervention Conference Calls** to further assist our associates in caring for these challenging residents.

Silverado's Grand Rounds allows for the presentation of clinically complex or interesting resident behavior cases for the purpose of a remote and multi-site audience to problem-solve together and raise clinical reasoning. The concept of Grand Rounds is consistent with Silverado's philosophy of providing opportunities for our associates to increase their knowledge of new developments in the field of dementia or geriatric health care, use all of the available Silverado resources to "brainstorm" together on complex cases, as well as minimize the use of psychotropic medications as a method to manage resident behaviors.

Leaders and experts from Silverado, as well as invited consultants such as psychiatrists and other therapists join the Grand Rounds Conference Call. During the Grand Rounds calls, Silverado associates from all of our 20 communities have the opportunity to present to the experts their challenging residents and receive consultation from the experts on the phone line. We have many examples of experts who are not on-site with the resident, sharing great ideas that have been very successful.

Silverado does not use physical restraints, even though many residents have very challenging behaviors. The Grand Rounds Conference Calls are an important part of Silverado's success in managing difficult resident behaviors, bringing in resources from across the company to brainstorm on how best to intervene and bring LIFE to our residents.

Silverado communities are often referred new residents considered to be difficult to handle skilled nursing or the assisted living dementia units from local Geropsychiatry Units. These residents come to Silverado with a history of difficult behaviors. At the time of move-in, Silverado's team begins to assess the new resident. Behavior mapping every 30 minutes is initiated, to establish any patterns or triggers for behaviors. The nursing team will assess the resident for any possible sources of physical pain or infection and current medications are reviewed with the medical director. The social worker will assess the resident for depression and anxiety.

The following is a copy of the Behavior Intervention Worksheet we use.



Behavior Intervention Work Sheet

Resident: _____ **Behavior mapping started:** _____

Brief description of the behavior: _____

- New behavior
- Escalation of existing behavior

Evaluate for the potential contributing medical causes:

- Any indication of pain - oral/foot/etc.? _____
- Constipation Date of last BM _____
- UTI
- Dehydration
- Gastric/digestive
- Skin issues
- Arthritic
- Depression
- Sleep problem
- Nail problem
- Other: _____
- Recent medication change/addition: _____
- Any medication side effects noted? _____
- Current psychotropic medications:

MED / DOSE / DATE STARTED

Evaluate for potential environment contributing causes.

- New roommate
- New caregiver
- Move to new room
- New disruptive resident
- Change in routine
- New stimulation
- Does resident appear bored?
- Does resident appear fearful? Consider possible abuse
- Caregivers/associates respond appropriately to behavior
- Other changes: _____

What redirection techniques work with resident?

What are the rewards for the resident?

Review this worksheet with interdisciplinary team and determine plan of care. Re-evaluate as needed.

Nursing Signature: _____

Date: _____

Silverado uses this Behavior Intervention form to look for triggers for changes in dementia residents' behaviors. Residents' behavior are seen as an attempt to communicate and the Silverado team looks for causes such as pain, anxiety, environmental causes, acute illnesses, and depression which may trigger this new behavior. If staff interventions are unsuccessful in mediating the behavior, anti-psychotic and anti-depression medications may be helpful. These medications are reviewed on a regular basis to see if they continue to be of benefit to the resident.

When the assessments are complete and the information is compiled, the Grand Rounds Conference call will be scheduled to present the resident's case to experts throughout Silverado. Participants on the call may include Silverado nurses, social workers, physicians, Administrators, care givers, Activity Directors as well as other team members and outside invited experts. An interdisciplinary approach is used to discuss the resident and suggest appropriate interventions. The Grand Rounds conference calls typically last approximately one hour and a follow-up call is scheduled to determine if the suggested interventions were effective.

The Grand Rounds calls have been very helpful in intervening with challenging resident behaviors. It is often the Silverado associate, who is not on location with the resident, but by hearing the description, can think "out of the box" and suggest creative interventions for the behaviors.

The Grand Rounds calls are also an excellent educational tool for our associates and they learn behavioral intervention techniques they can apply to their challenging situations at their own Silverado community.

In addition, by giving our associates an opportunity to present their cases on the Grand Rounds, they realize they have resources they can consult, beyond their own community walls, which are always available for them.

These Grand Rounds Conference calls are part of what makes Silverado a leader in dementia care. In addition to the monthly calls, we have occasionally convened a Grand Rounds call on "short-notice" if there is a community requesting an immediate consultation.

The Grand Rounds Conference Calls are innovative because they strengthen the concept of an interdisciplinary team, as well as a trans-geographic team, uniting team members from several different disciplines and geographic locations to brainstorm together on the optimal plan of care for challenging residents. It puts experts from across Silverado's company and across the country available at one designated time, to support the team who is faced with caring for challenging residents and assisting them to meet the dementia resident's needs.



The Grand Rounds Conference Calls are easily replicated, making optimal use of resources that each Assisted Living has available from all of their locations. The invitation to outside experts, such as geriatric professionals, also helps build relationship with possible referral sources. The process is low-cost, the only requirement is a conference line set up.

The details of Silverado's award winning "Grand Rounds Behavior Intervention Conference Calls" are shared with the Senate Committee on Aging in the document entitled "Enhancing the Quality of Life in a Dementia Care Assisted Living Environment." Silverado also received the 2009 Dementia Award from the Center of Excellence in Assisted Living (CEAL) for the Ground Rounds concept.

Silverado used the benefits of "The Effects of Natural Light on Persons with Dementia" in the published paper from a UCSD study at Silverado Senior Living - Escondido, which was led by Dr. Sonia Ancoli-Israel. This study found that residents exposed to two hours of outdoor light had significantly reduced behaviors in the evening.

Another example of Silverado's focus on innovative clinical services is its award winning fall and fracture prevention program.

Injuries from falls are the leading cause of accidental death in the elderly. Nationally, the annual incidence of falls is 30% in persons is greater than 65 years old and in nursing homes, 75% of patients will have a fall each year. Of those who fall, about 7% - 10% sustain a serious injury, such as fracture, joint dislocation, or severe head injury. Of all fall deaths, more than 60% involve people who are greater than 75 year old. 30% of hip fractures die within one year, most deaths within six months. Only 9% post hip fracture were able to walk again. At Silverado, we recognize the risk of fall and injuries and have put in place a very pro-active, award-winning injury prevention program and fractures are rare.

One of the initial concerns that needed to be addressed was the balance between our commitment to keep residents safe and their ability to maintain choice and independence. Often our favorite hobbies and past times can involve some risk and just because we have aged or have Alzheimer's disease shouldn't preclude us from continuing to pursue our interests, even if they involve some risk. The choices we make can often put us in a position that would be considered less than one hundred percent safe.

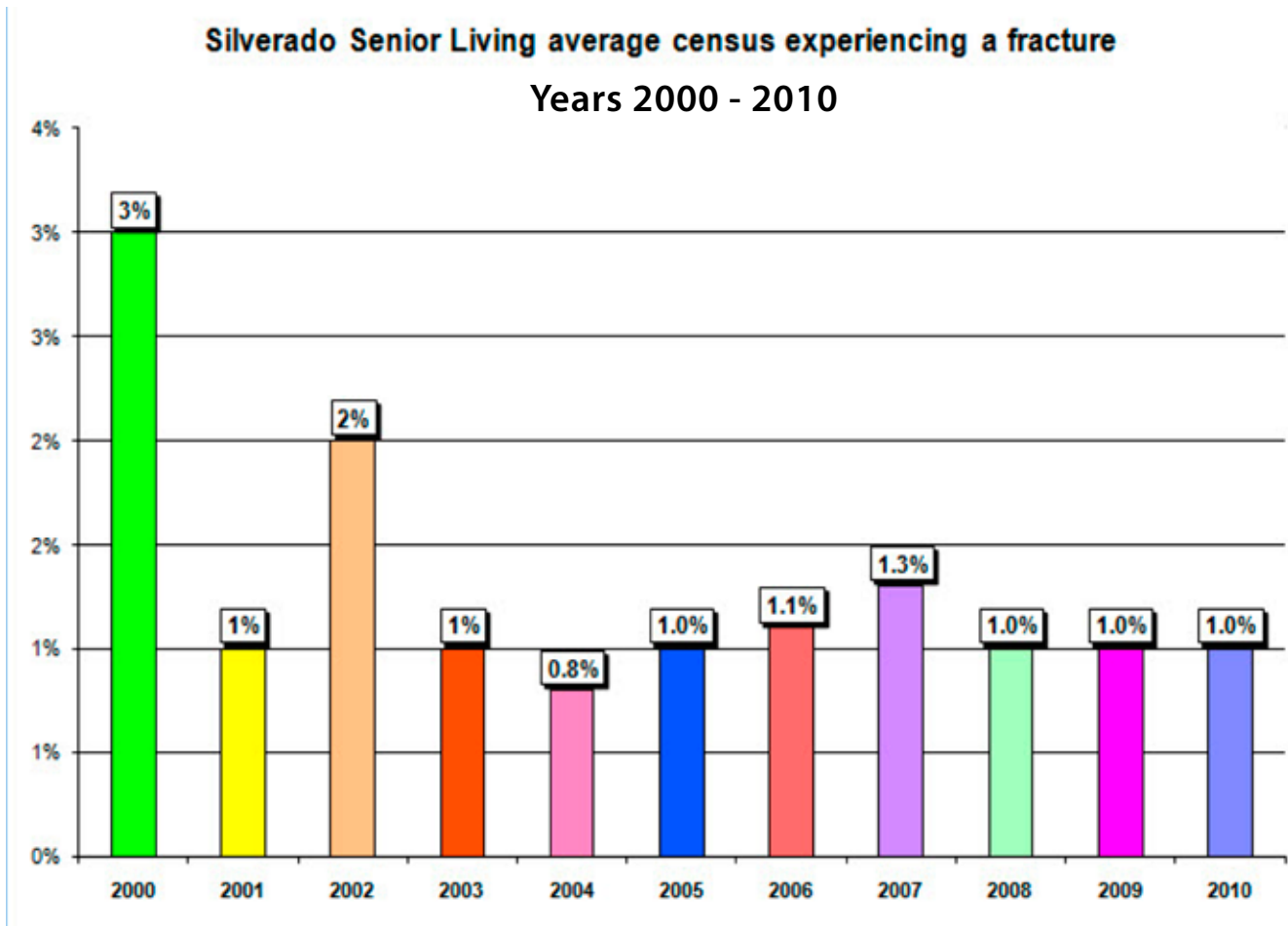
Silverado's fall and fracture prevention program, creates a balance between our philosophy of care of maximizing independence and choice while minimizing injuries that are related to falls and fractures.

When developing a program to ensure the least number of falls resulting in fractures the following elements were considered:

- History of previous falls
- Lower extremity weakness
- Gait disorders, range of motion
- Transferability – upper and lower extremity strength
- Balance
- Medications
- Age
- Chronic illness
- Environmental hazards
- Cognitive changes
- Vision changes
- Other Factors (time of day – fatigue)

The average resident at Silverado has at least 10 of the above risk factors. A multidisciplinary approach was undertaken to conduct an analysis of our falls and fractures. Our intent was to learn from our history of residents' falls in our communities. Some of the areas tracked and measured included:

- Witnessed/unwitnessed
- Location
- # of medications
- Recent medication changes
- Time of day/shift
- Acute illness



From this information we sought to identify which risk factors could we affect and which risk factors cannot be modified.

Not Modifiable:

- Age
- Dementia
- Sensory deficits

Modifiable:

- Lower Extremity Weakness
- Gait Disorders, Range of Motion (ROM)
- Transferability – Upper and Lower Extremity Strength
- Prevent deconditioning
- Balance
- Medications
- Acute Illness
- Chronic Illness – can we improve their health?
- Environmental Hazards
- Vision Changes
- Other Factors (time of day – fatigue)

With every resident having 10+ risk factors, we adopted a philosophy of “Universal Precautions” The precautions involved looking at each of the following opportunities:

- Reduction of Medications
- Maintaining Weights
- Environmental Assessment
- Interdisciplinary Team Meetings – Service Plans for Fall Risks
- Hip Savers garments
- Staff Awareness
- Alarm Systems

“Service plans” were then created for each resident that was considered “at risk” and the items identified above (previous falls, unsteady gait, weakness, recent illness or hospitalization, medications, etc.) were reviewed

The following elements were considered and as appropriate incorporated into each service plan:

- Restorative Care Program
- Physical Therapy
- Adaptive Activities
- Assist with Ambulation & Transfers
- Supportive Devices
- Lower Bed
- “Landing pad”
- Hip Savers
- Maintain Adequate Hydration/Nutrition

Silverado experts have presented at numerous state and national conferences about their fall prevention program. This year a national webinar presentation was made through Greenhouse.

The details of Silverado’s award winning Fall Prevention Program is shared with the Committee on Aging in the document entitled “Enhancing the Quality of Life in a Dementia Care Assisted Living Environment.” This program is easily replicable by others to achieve similar results.

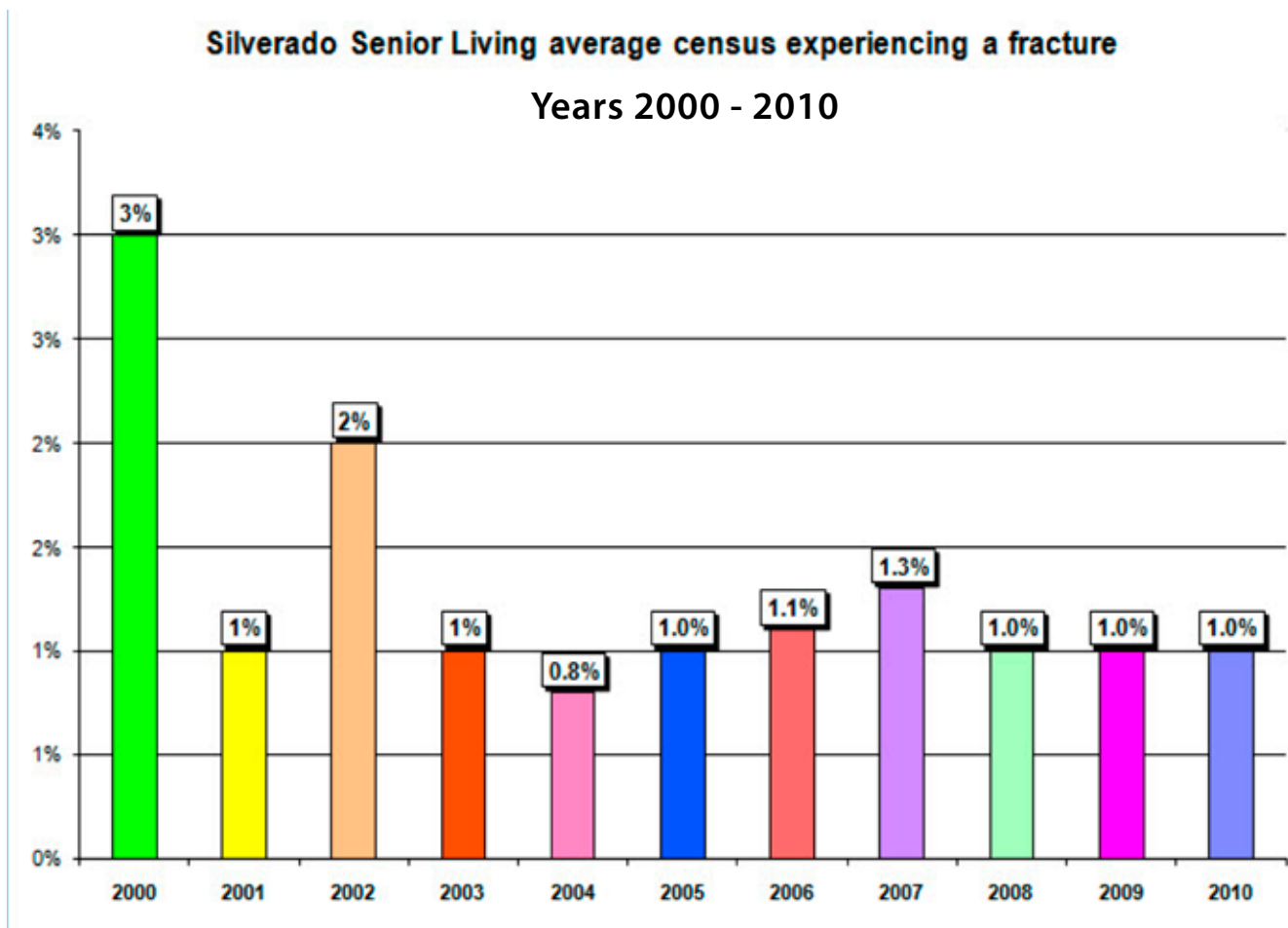
The success of Silverado’s Fall and Fracture Prevention program is reflected in the graphs below:

Compared to nursing homes where 10-20% of falls cause serious injuries at Silverado, only 4.8% of falls cause serious injury.

POLYPHARMACY

The Risks of Polypharmacy

Many older adults face unknown risks from taking too many prescription and over-the-counter medications, a situation known as polypharmacy. The Journal of the American Medical Association (JAMA) had a recent article (Dec. 24, 2008) highlighting some of the dangers for seniors who are taking many medications. It is not uncommon for elders to have multiple chronic illnesses, as well as multiple physicians. This can lead to the gradual accumulation of medications



Some of the risk factors for medication-related problems include:

- 6 or more active chronic medical diagnoses
- 12 or more doses of medications per day
- 9 or more medications (including non-prescription medications)
- Low body weight
- Age 85 years or older
- Decreased kidney function (creatinine clearance)

Percent of falls with/without Injury 1999-2010



As we age, often we acquire not only multiple chronic diseases, but also multiple physicians that are treating the various illnesses. Generally, lower drug doses are required to achieve the same effect with advancing age.

The elderly population is especially vulnerable to drug reactions which often produce effects that simulate the conventional image of growing old. Adverse reactions to medications may include: unsteadiness, drowsiness, dizziness, falls, confusion, nervousness, incontinence and insomnia.

Silverado's residents suffer from dementia. If they are also taking multiple medications, the adverse effects of polypharmacy can greatly increase their confusion and disorientation.

Silverado has a proactive approach to decreasing inappropriate medications. All medications are reviewed by the RN, Director of Health Services and collaborating physicians to determine their risks and benefits. This regular review of resident medications facilitates the decrease or discontinuance of inappropriate or unnecessary medications. The average number of medications residents at Silverado take compared to the average number in Skilled Nursing Facilities (SNF) and other assisted livings.

- In a SNF, 12.7 is the average number of medications that residents take daily.
- In a traditional AL, 8.7 is average number of medications that residents take daily
2006 Overview of Assisted Living-AAHSA, ASHA, ALFA, NCAL, NIC
- Silverado Senior Living (SSL), 5.46 is average number of medications (2010)

In addition, all medications at all Silverado assisted dementia care living communities are administered only by licensed nurses. Silverado does not utilize medication aides to administer medications to our dementia residents. Silverado feels this is an especially important safety measure for our residents.

SILVERADO'S UNIQUE CLINICAL CARE PROGRAMS

Silverado Senior Living's communities hold a unique place in the assisted living industry. Only six percent of assisted livings are licensed as freestanding dementia care communities. Currently Silverado Senior Living has 20 dementia-specific assisted living communities while caring for over 1,200 residents.

Generally, Silverado cares for a very frail and elderly population. The average age of residents living at Silverado is 83 years old and less than four percent of Silverado residents are independent in their care needs. Providing care for those with dementia is a specialty, requiring a multidisciplinary team trained and focused together to offer the social stimulation and clinical assessment that supports our residents to be as independent as possible for as long as possible.

Silverado's model of care is to give LIFE to the residents as part of insuring that our residents receive quality care. As mentioned above Silverado has full complement of clinicians, including a physician as Medical Director, an R.N. as the Director of Health Services and licensed nurses on-site twenty-four hours a day, seven days a week. In addition, Silverado is affiliated with many outstanding universities and teaching programs, such as: University of California San Diego (UCSD) and the University of California at Los Angeles (UCLA), University of Southern California (USC), Baylor University College of Medicine in Texas, etc.

Silverado Senior Living	≤9% of move outs are due to health reasons
Traditional AL (2)	46.8% of move out's are due to health reasons

Silverado’s clinical model allows dementia residents to age in place and avoids the trauma of having to relocate to a hospital or nursing home as they physically decline. In traditional assisted living, the most common reason that residents leave, is for health reasons. Because of Silverado’s clinical model of care, it is rare that a resident would have to leave due to health conditions. Silverado’s model also results in significantly reduced Emergency Room visits as well.

REGAINING INDEPENDENCE

Silverado’s mission is to provide the maximum quality of life at every stage of the condition of dementia. Many residents move in to Silverado over-sedated, and debilitated. Residents’ medications are reviewed by the clinical team and can often be reduced. Physical therapy and restorative care may assist residents to regain their abilities to enjoy greater independence. At Silverado, over 3000 residents have regained the ability to walk, over 2200 to regain the ability to feed themselves, and over 600 to regain independence in their self-toileting. (See attached chart). Through these improvements, residents regain independence and self esteem.

END OF LIFE CARE

Silverado cares for the residents throughout the progression of their condition and only 1.8% of Silverado residents are discharged to a nursing facility. In other assisted livings, 33.5% of residents will be discharged out to a nursing facility. Silverado is the last home for most of their residents, avoiding the trauma of having to transfer out to an acute-care hospital or nursing home as they decline. 92.4% of residents living at Silverado will pass away at Silverado, with over 70% supported by hospice care. Nursing homes show hospice use of less than 3% at end of life.

Silverado's assisting living communities combine a passion for giving LIFE to our residents, along with excellence in clinical outcomes, making our model of care unique in the assisted living industry.