



# Slowing Disability through Social Connection

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Sanyukta Bhide and Anica Pohray

## Abstract

To better understand the costs associated with the onset of disability in the elder population, and the ways to reduce those costs, we conducted a review of the scientific literature. We looked at longitudinal studies detailing the onset of disability or cognitive decline, as well as the stresses on caregivers helping the elderly. We found that significant social interaction was an important factor in delaying disability and cognitive decline. We also found that there were costs borne by family caregivers, especially women, in the form of wage impacts and benefit losses. By creating solutions that allow elders and their families to build and strengthen their social connections, we believe that we can help avoid the costs associated with long term care and we will be able to help seniors live independently for longer.

## Introduction

As the global population grows older and deals with age-related disabilities, finding suitable long-term care has proven to be a difficult task. A majority of seniors age 65 and up require long term care or will require long term care in their lifetime. As they experience cognitive decline or are unable to perform tasks required to live on their own, their choices are to hire in-home care, move into a relative's house, into an assisted living facility or a nursing home. The costs associated with long term care for the elderly are significant, over \$100,000 annually for nursing homes. Family caregivers, who are almost exclusively female, suffer both emotional and financial stress when caring for an elderly parent. Current solutions focus on caring for the elderly once they require long term care, and are fundamentally reactive in nature. In this white paper, we want to highlight solutions that are focused on preventing disability and helping elders stay independent longer.



## Detailing the problem of disability and its costs

To determine an individual's ability to age independently, doctors assess whether or not they are able to perform the Activities of Daily Living (ADLs). These are a standard group of actions deemed essential to taking care of oneself without help. Long term care is required when a person is unable to do two or more of these activities of daily living.

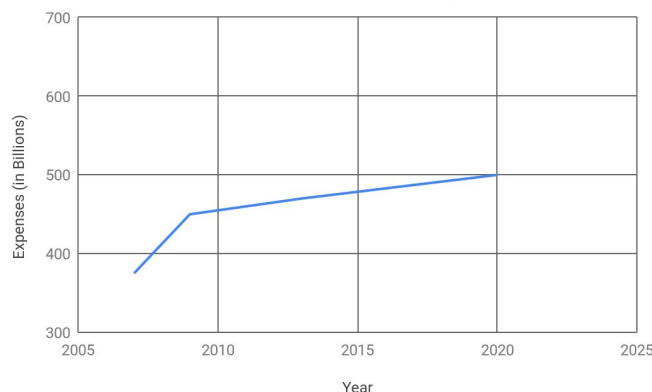


**Needing help with two or more ADLs → Long term care**

## Cost of Unpaid family care

About 34.2 million Americans have provided unpaid care to an adult age 50 or older in 2014-2015, according to the National Alliance for Caregiving and AARP. The value of services provided by informal caregivers in 2013 was estimated at about \$470 billion, and projected to reach \$500 billion in 2020.

Annual Caregiving Expenses (in Billions)



40% of caregivers had turned down a promotion, taken a less demanding job, quit a job or taken unpaid leave to keep up with caregiving responsibilities. In addition, 64% of caregivers had taken paid time off to provide care. According to an [AARP study](#), caregivers who leave the



workforce early lose an average of \$300,000 in wages and benefits over their lifetime. The costs of turnover, as well as reduced productivity, can contribute to a substantial hidden cost of care for many employers as well.

## Cost of paying for care

Significant stresses are associated with paying for long term care. [Medicare](#) only pays for short term, rehabilitation focused nursing and limited home health services. Once elders are unable to perform one or more ADLs, they require help, by in-home caregivers or professional institutions. In home care services are for mostly independent elders, providing light housekeeping, meal prep, and running errands. According to a [2018 Genworth survey](#), this costs an average of \$48,000 per year. An at-home health aide with medical training costs over \$50,000 per year, helping elders with baths and other personal needs. Residential facilities that help older adults have substantial costs as well, depending on the level of care provided. Assisted living facilities, which provide less care than nursing homes, cost on average \$48,000 per year for a one-bedroom space. For elders that are unable to perform a majority of the ADLs, nursing homes with 24-hour supervision are necessary. A private room at a nursing home is about \$100,400 on average per year.

## Advantages of Aging in Place

According to a study conducted by the [AARP](#), almost 90% of seniors reported they wanted to stay in their homes for as long as possible, and there are many benefits associated with aging at home. Rather than conforming to a nursing home's regimented schedules on meals, curfews, and visitations, elders maintain control over their own routines and decisions, contributing to a feeling of independence. This way, too, they can more easily stay connected with their community, friends, and family. Aging in place provides a sense of familiarity and comfort, potentially helping delay memory loss by ensuring the environment remains the same. Finally, staying at home is healthier, as there is a [higher risk of infection](#) due to weakening immune systems and the communal nature of nursing homes.



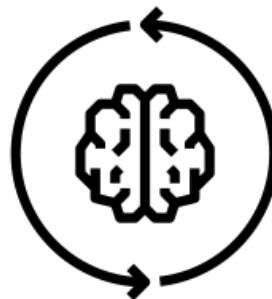
## Measures to Enable Aging Independently

We have all heard about those who have managed to largely avoid expensive long term care options. Delaying the onset of disability by ensuring older adults can perform ADLs would allow elders to live independently for longer. Research shows that meaningful social connections can greatly reduce the odds of developing age related disability. Along with maintaining a healthy lifestyle and practicing brain exercises, strong circles of support can greatly help delay disabilities.

**Maintaining a healthy lifestyle** helps prevent cognitive decline. Exercise offers a whole slew of health benefits, from helping prevent heart disease to relieving anxiety and depression. On top of that, some studies have shown that regular exercise improved cognitive function in people who had memory problems. A healthy diet, especially the Mediterranean diet, is associated with larger brain volumes and better cognitive performance. Finally, getting consistent, good-quality sleep improves health and may prevent decline. Individuals who sleep less than seven to eight hours often perform worse on cognitive tests.



**Practicing brain exercises** is another way to help stave off the onset of disability. In one study, people in their 70s and 80s were asked how often they did activities that required mental engagement, like reading, writing, doing crossword puzzles, discussing in groups, and playing music. The highest third of that group, those who engaged in these activities most often, were half as likely to develop mild cognitive impairment as the lowest third. The most important aspect of these exercises is their novelty, that they are constantly forcing your brain to think in new ways. Learning new skills is one way to exercise the brain.



**Having a social network** is a proven method to stave off the onset of disability and to help older adults remain in their homes longer. One study of 5,206 adults over 65, found that

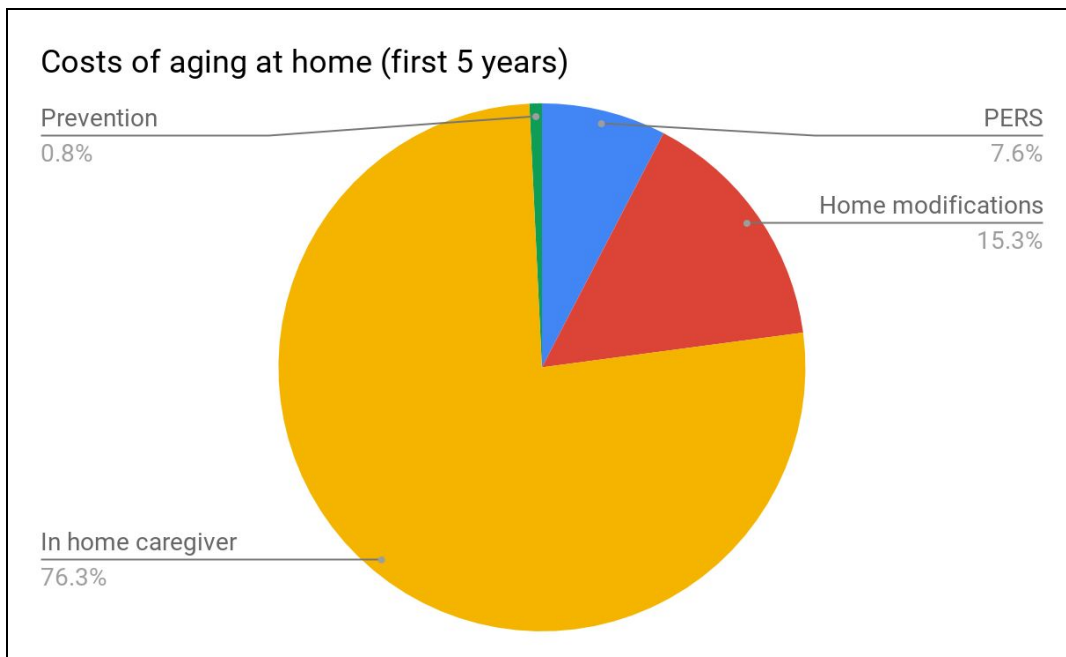


individuals with high levels of social engagement were 34% less likely to develop a disability in the future. The key is not the size of the social network, but the feeling of satisfaction with them. The size appears only to be correlated with good health, but engaging meaningfully with the network is what actually delays both the onset and progression of disability. This means that older adults who connect with their network often are less likely to develop a disability in the future, and disabled adults can slow the progression of their disease. Ensuring that older adults continue to feel fulfilled and helped by their social network is extremely important in this regard, as it is the subjective feeling of satisfaction that delays disability.

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Once disability has set in, there are a number of more expensive measures that need to be taken to help an older adult stay in their home.

1. Technology solutions:
  - a. Personal emergency response systems (Medical alarms and wearables)
2. Home modifications
  - a. Bathroom accessories, personal care items
  - b. Mobility Products: Scooters/walking aid
3. Transportation solutions
4. In home caregiver/nurse





## Conclusion

After looking at all the costs and disadvantages associated with our current aging model, we need to place more focus and resources on prevention of disability onset. As a society, we need to become more aware of the ways in which we can make our families and communities more elder friendly. Improving social connections is a robust way of reducing the odds of onset of disability associated with aging. By building and managing our support networks around aging, we will be better able to support our loved ones as they age.