



**Spotlight on Safe and Healthy Aging:  
A Family Conversation  
Mobilization Plan**



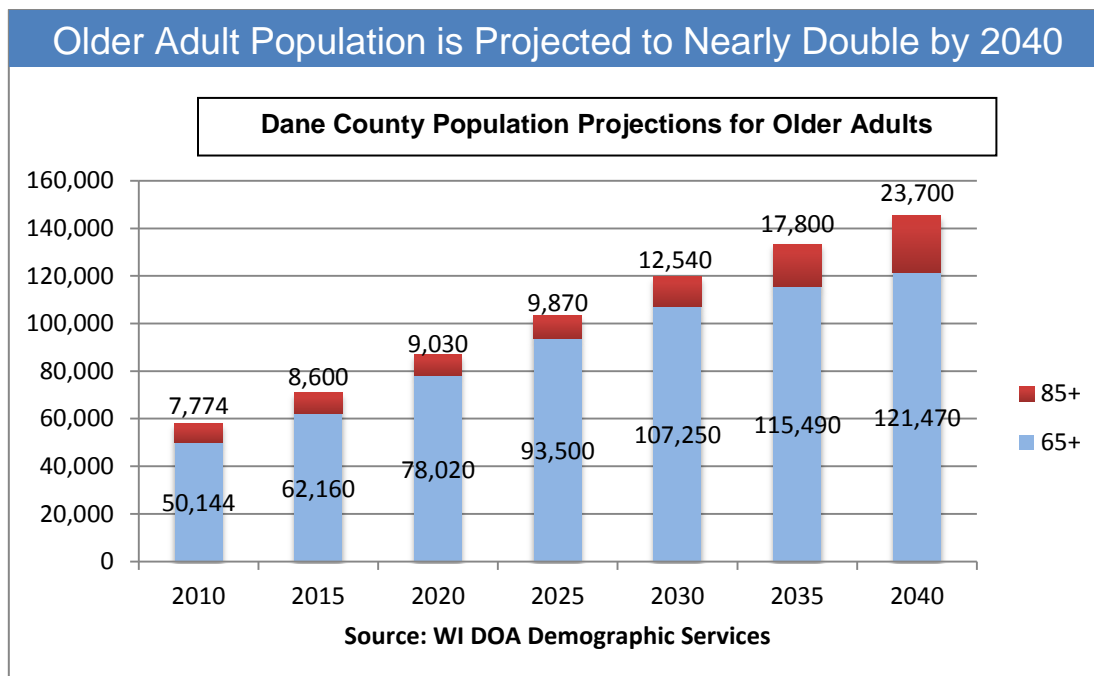
## Safe and Healthy Aging Mobilization Plan 2017

Seniors and people with disabilities are able to stay in their homes.

### Introduction

The United States is experiencing a major demographic growth in the older adult population. The population is projected to increase substantially in the coming decades and this is true for Wisconsin and especially in Dane County. In Wisconsin, the population of older adults (age 65+) was 777,500 in 2010 representing 13.7% of the population, and increases rapidly, nearly doubling in 30 years so that in 2040, the population is projected to be 1,575,000 or 23.7% of the total population. The very elderly population (those 85+) will increase nearly 140 percent in 30 years, from 118,500 (2010) to a projected 283,500 (2040). Sometime in the second half of the 2020s, the older residents of Wisconsin are predicted to exceed the number of children.<sup>1</sup>

Specifically in Dane County, the population of those 65+ was 50,144 (2010) and is projected to be 121,470 (2040), a nearly 150 percent increase. For the oldest residents (85+), the population was 7,774 (2010) and is projected to be 23,700 (2040) thirty years later, which is over a 200 percent increase. Just in this decade (2010-2020), the population in Dane County over the age of 60 is projected to increase by 45%, one of the highest increases of all counties in Wisconsin. **This rapid growth in the aging population will have a tremendous impact on our community, which is why United Way of Dane County is committed to keep older adults living healthy, safely, and independently in their homes.**



<sup>1</sup> Egan-Robertson, D. (2013). Wisconsin's Future Population: Projections for the State, Its Counties and Municipalities, 2010-2040. Wisconsin Department of Administration Demographic Services Center.

In 2016, we evaluated the results of our 2010 Safe and Healthy Aging Mobilization Plan and updated our data and recommendations with this new plan effective January 2017 with new recommendations to help Dane County's older adults age safely and with dignity in their homes. This report highlights the history of our work, our successful results, and encourages families and healthcare institutions to take a pro-active role to prevent Adverse Drug Events (ADEs) and falls in older adults.

It is also important to note the intersection of safe and healthy adults with economically stable families. United Way's Agenda for Change offers six aspirational goals that address poverty including "Seniors and people with disabilities are able to stay in their homes." We know that unsafe home conditions and chronically ill older adults not only create unhealthy outcomes, but can economically destabilize a family impacting the quality of life for that individual and often times their family. Excessive medical bills and/or institutionalization can destroy earned wealth intended as inheritance for the families of older adults. Research has shown that aging in place and keeping older adults in their homes rather than an institution is more cost-efficient to both seniors and their families. In 2016, the median monthly payment for non-institutionalized long-term care was \$1,463 compared to \$7,817 for nursing homes. Between 2011 and 2016, the rate of a room in a nursing home rose more than 3%, increasing more than the rate of inflation. Thus, these economic burdens are taken on by the older adult and their family and/or caregivers. 4.9% of Dane County older adults live below the Federal Poverty Level (FPL). Our initiatives and supported services are free for low-income older adults.

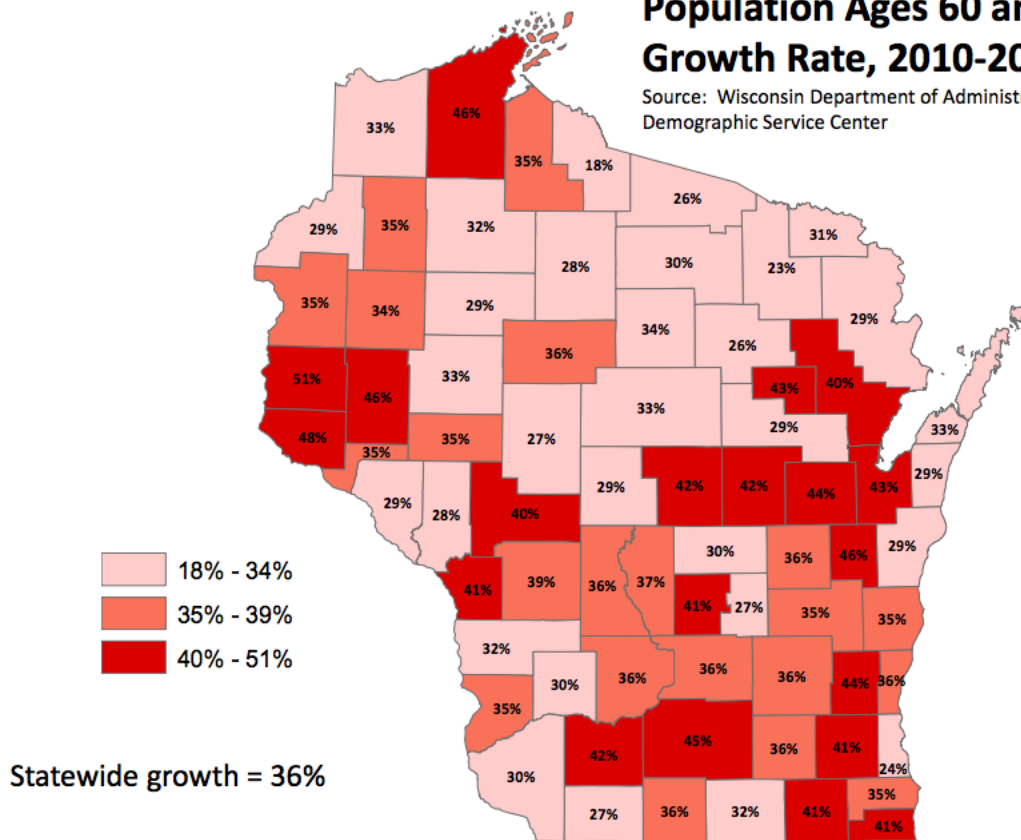
### New Goal

With the success of our first mobilization plan, we're establishing a new goal to further reduce the community-level rate of ADEs and falls among older adults 20% by 2022 (evidenced by hospitalizations and ER visits). The updated strategies implemented for this 2017 mobilization plan will be shared in detail later in this document.

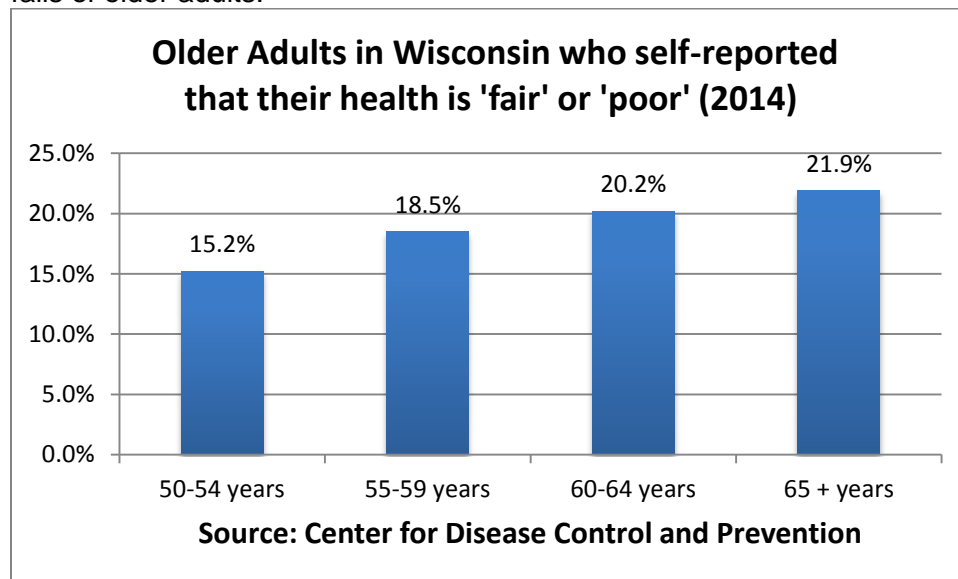


## Population Ages 60 and Older Growth Rate, 2010-2020

Source: Wisconsin Department of Administration,  
Demographic Service Center



**The problem:** As the population of older adults increases, so do the chronic health conditions from which they suffer. This leads to an increase in medications consumed, and ultimately, an increased risk for negative drug reactions and/or potential falls. Four out of five Medicare patients over age 65 have a chronic health condition and Wisconsin ranks high among states in falls of older adults.



## Background

In 2010, United Way convened a Delegation on Safe and Healthy Aging of 38 experts, specialists, stakeholders, and people with lived experiences as older adults or caregivers, to examine where we should focus our work to keep older adults living safely, healthy, and independently in their homes. The experts on the Delegation of Safe and Healthy Aging studied the primary causes for older adults to require higher levels of care, including hospitalization and/or rehabilitation/nursing home care and institutionalization. The team identified four key triggers that moved older adults to higher levels of care: **Incontinence, Dementia, Adverse Drug Events (ADE) and Falls**. They decided to focus on two of the most acute yet preventable health triggers that caused alarming rates of emergency room visits and hospitalizations of older adults in this population: **ADEs and Falls**. Based on the research and recommendations of the Delegation, the Safe and Healthy Aging Mobilization Plan was written and three innovative initiatives were birthed and guided by the four strategies of the plan: **comprehensive medication reviews, in-home safety assessments, and falls prevention classes**. These priorities were addressed by a combination of direct service and raising the visibility of these opportunities to identify and encourage partners. All three initiatives have been highly successful in reducing hospitalizations and emergency room visits due to ADEs and falls and are recommended by United Way's Self-Reliance and Independence Community Solutions Team for continued programming.

In 2009, when the Delegation was initially being formed, almost 19% of Dane County older adults admitted to emergency rooms had suffered a fall or negative drug reaction (the unintended negative impact of one or more prescriptions, over-the-counter medications, or supplements). Dane County ranked as the third highest county in Wisconsin in falls that resulted in hospitalization for injury. In addition, the Delegation learned that the average Dane County senior was taking 6.4 medications daily, which exposed them to a statistical 50% chance of experiencing a negative drug reaction.

The Delegation on Safe and Healthy Aging released a Mobilization Plan in January of 2011. It established a community level goal to reduce the rate of ADEs and falls among older adults 15% by 2015.

## Recommendations

To achieve that community level goal, the Safe and Healthy Aging Mobilization Plan recommended four strategies as mentioned below:

1. **Identify and assess:** the risk of adverse drug events and falls.
2. **Improve connections:** connect physicians and health care providers to resources for non-medical needs with community-based organizations.
3. **Provide access to resources:** caregivers have access to resources and tools that help seniors remain safe.
4. **Educate the community:** the community understands and advocates for the prevention of adverse drug events and falls.

## Results

Since the launch of our Delegation on Safe and Healthy Aging's work in 2011, we have made important headway in implementing our strategies through our Signature Initiatives and community engagement:

- 1,229 SAFE Program in-home safety assessments were completed for seniors at very high risk for falls (average age over 80), reducing the fall rate of participants to 19.69% compared to a national average rate of 50%. The SAFE Program sends trained volunteers into the homes of older adults to identify signs of potential falls and/or ADEs and make the environmental changes which may sometimes include light home maintenance.
- 30 Dane County Wisconsin Pharmacy Quality Collaborative (WPQC) pharmacists have completed 1,005 comprehensive medication reviews for seniors at very high risk for ADEs (average taking more than 13 medications). Pharmacists are trained to use evidence-based screening tools to detect the risk of adverse drug events for low-income older adults. An additional 826 older adults received a brief medication assessment through the SAFE Program.
- Expanded the community model of Comprehensive Medication Review Initiative into the health system/clinic model in partnership with UW Health as they have hired six pharmacists to complete medication reconciliation [SMART Meds Program]
- 1,266 older adults participated in evidence-based falls prevention classes (Tai-Chi, Balancing, Stepping On, etc.).
- United Way, partnering with local media outlets, conducted a broad community education campaign between 2009 and 2013 targeted to older adults and caregivers.
- We've conducted two Case Management Symposiums on Adverse Drug Events and falls and provided outreach to more than 190 physicians, nurses, pharmacists, case managers, social workers and other professionals who serve older adults in the greater Dane County Community to increase their awareness and knowledge of prevention practices.
- In partnership with the University of Wisconsin-Madison School of Pharmacy, we produced a distance learning webinar that includes information on ADEs, the importance of identifying geriatric symptoms, and identification of community resources for pharmacists. We have also created a webinar for Internal Medicine within the Office of Medicine and Public Health at UW-Madison.
- We created videos of program participants describing how programs helped them to remain independent. These materials have been useful in media, publicity, and educational materials used to engage others and can be found on the United Way website.

### Why Address Adverse Drug Events?

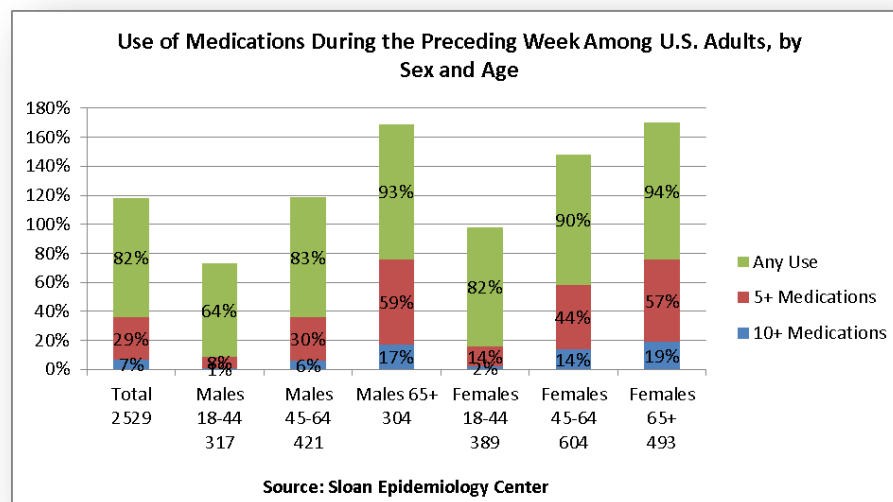
During the year of our Delegation, this issue was identified as not being well understood by older adults or their caregivers. We learned that:

- Older adults who took 5-8 medications and supplements had a 50% chance of experiencing an ADE or negative drug reaction.
- Those who took 8+ medications had a 100% chance of experiencing an ADE.
- Older adults do not always tell physicians about supplements and over the counter medications they use.

- Research by geriatrician Mark Beers identified a list of drugs that are metabolized differently in older adults, and many physicians are not familiar with the accentuated danger of drugs on this list. We've offered this list widely to older adults and caregivers for review with their physicians. **Appendix B**
- ADEs are a frequent cause of falls, dementia, and incontinence.
- The Delegation heard many stories from the community on how life threatening and life-altering ADEs had occurred in their lives and how these could have been prevented with awareness.

*Overview*

In any given week, 82% of adults take at least one medication, and 29% of these people take five or more (including prescription or nonprescription drugs, vitamins/minerals, or herbal/natural supplements). However, the largest consumers of medication are those aged 65 or older; 17-19% of those 65+ take at least ten medications per week.<sup>2</sup> Older Americans comprise 13% of the total population, but they consume an average of 34% of all prescription drugs.<sup>3</sup> These prescription medications, potentially causing adverse outcomes, cost approximately \$3 billion annually.



An adverse drug event (ADE) refers to the unintended or unwanted effects of taking a normal dosage of a drug<sup>4</sup> that may result in mortality, morbidity or symptoms sufficient to prompt a patient to seek medical attention. The symptoms may include falls, hip fractures, delirium, nausea, hyper/hypoglycemia (high or low blood sugar), heart failure, loss of appetite, dry mouth, blurred vision, and high risk of bleeding. However, ADEs are preventable up to fifty percent of the time.<sup>5</sup> In one study, older adults who were taking more than eight chronic medications or had visited more than three doctors were referred to a Medication Safety Review Clinic. In this

<sup>2</sup> Sloan Epidemiology Center. (2006). Patterns of medication use in the United States, 2006: a report from the Slone Survey. Boston: Boston University.

<sup>3</sup> American Public Health Association, 2007

<sup>4</sup> Pretorius, R. W., Gataric, G., Swedlund, S. K.; and Miller, J. R. (2013). Adverse Drug Events in Older Adults: How to Avoid Them. *American Family Physician*, 1;87(5):online.

<sup>5</sup> Pretorius, R. W., Gataric, G., Swedlund, S. K.; and Miller, J. R. (2013). Reducing the Risk of Adverse Drug Events in Older Adults. *American Family Physician*, 87(5): 331-336.

group, eighty-seven percent had at least one drug-related problem and the researchers found 427 drug-related problems. Additionally, being older, having hypotension (low blood pressure), and taking more chronic medications all led to an increased likelihood of having a drug-related problem.<sup>6</sup>

ADEs are more common in older adults for a variety of reasons. First, medicines have not been studied in this population, and older adults can metabolize medications differently than the younger studied populations. Moreover, the livers and kidneys of older adults do not adapt or repair themselves as easily as those of younger individuals. Older adults may be at risk of ADEs because of poor nutrition or poor fluid balance (i.e. having too many or too few fluids).<sup>7</sup> Additionally, the use of several simultaneous medications (polypharmacy) places older adults at risk for falling, reduced functional status, worsening of existing illnesses, reversible cognitive impairment, functional strength impairment, and ultimately hospitalization.<sup>8</sup> Older adults are also at high risk for medication mismanagement, such as mixing medications, and taking the wrong doses. Unintended disconnection of provider-patient communication and insufficient patient knowledge contribute to medication mismanagement.

When medications are minimized, studies have shown positive effects for older adults. In one study, the effects of discontinuing or minimizing medications were examined in 70 older adults. Fifty-eight percent of the patients' medications were discontinued with no harmful effects to the patients. After the medication minimization, eighty-eight percent of patients reported improvement in health, and eighty percent had improvement in cognition.<sup>9</sup>

#### *National data*

According to the CDC, ADEs lead to 700,000 emergency visits each year, and approximately 120,000 of the patients need to be hospitalized after the ER visit. Older adults are twice as likely to go to the ER for an ADE, and seven times more likely to be hospitalized afterwards.<sup>10</sup> At least one in ten elderly patients will experience an ADE leading to or during their hospital stay.<sup>11</sup> The CDC predicts that the numbers of adverse drug events will likely grow due to the development of new medications and the use of older medications for new treatments, an aging American population, an increase in use of medications to prevent disease, and additional insurance coverage for prescription medications.

#### *Local data*

According to the data from Wisconsin Department of Health Services and Wisconsin Hospital Association, in Dane County 10.79% of total hospitalizations (13,914) that occurred in 2008 were caused by adverse drug reactions and has increased over the years. Local physicians and pharmacists on the Delegation indicated that the common symptoms for hospitalizations by

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<sup>6</sup> Chan, D. C., Chen, J. H., Kuo, H. K., We, C. J., Lu, I. S., Chiu, L. S., & Wu, S. C. (2012). Drug-related problems (DRPs) identified from geriatric medication safety review clinics. *Archives of gerontology and geriatrics*, 54(1), 168-174.

<sup>7</sup> Pretorius, R. W., Gataric, G., Swedlund, S. K.; and Miller, J. R. (2013). Adverse Drug Events in Older Adults: How to Avoid Them. *American Family Physician*, 1;87(5):online.

<sup>8</sup> Maher, R. L., Hanlon, J., & Hajjar, E. R. (2014). Clinical consequences of polypharmacy in elderly. *Expert opinion on drug safety*, 13(1), 57-65.

<sup>9</sup> Garfinkel, D., & Mangin, D. (2010). Feasibility study of a systematic approach for discontinuation of multiple medications in older adults: addressing polypharmacy. *Archives of internal medicine*, 170(18), 1648-1654.

<sup>10</sup> Centers for Disease Control and Prevention (2012). Adults and Older Adult Adverse Drug Events.

<sup>11</sup> Alhawassi, T. M., Krass, I., Bajorek, B. V., & Pont, L. G. (2014). A systematic review of the prevalence and risk factors for adverse drug reactions in the elderly in the acute care setting. *Clinical interventions in aging*, 9, 2079.



ADEs were severe hypoglycemia (low blood sugar), hemorrhage (bleeding), cardiovascular effects, gastro-intestinal bleeding, falls, delirium, and electrolyte disturbances.

In Dane County, a comprehensive medication review is completed by a trained pharmacist (a Wisconsin Pharmacy Quality Collaborative—WPQC member). They use evidence-based comprehensive screening tools to detect the risk of adverse drug events for low-income elderly.



*Pharmacist and pharmacy student meeting with patient during a CMR event*

It includes a comprehensive review of an individual's medications, including prescription and over-the-counter medications, as well as herbal therapies and dietary supplements.

The Medicare Modernization Act of 2003 (MMA) requires Part D participating insurers to develop medication therapy management services for certain beneficiaries who meet criteria including suffering multiple chronic health issues and taking multiple medications. The law requires insurers to offer a

comprehensive medication review (CMR) by a pharmacist or other qualified provider at least annually and perform quarterly medication reviews with follow-up interventions when necessary. After analyzing common practices, requirements for 2010 were revised for greater consistency among Part D medication therapy management programs to raise the level of the interventions offered to positively impact the medication use of Medicare.

Given this environmental movement, the 45 WPQC pharmacies including 15 in Dane County, with the recommendation of the Delegation, started to offer comprehensive medication reviews to older adults, and some pharmacies even deliver the pill-boxes sorted by days and time to home-bound seniors, and follow-up with them on a regular basis. The fee for the service is covered by contracted insurance companies – which are Group Health Cooperative and Unity Health (National Health Care joined the network as of 2010). But, older adults with different insurances may need to pay \$120 for an hour CMR consultation, and \$180 for an hour CMR consultation with communication with prescriber for recommendations. United Way of Dane County has covered this cost for our at-risk low-income older adults at the various community events and at the participating WPQC pharmacies throughout Dane County.



*United Way Staff pictured with Catholic Charities Staff and WPQC Pharmacy Team at a CMR event*

## **Why Address Falls?**

### *Overview*

Older adults are at significant risk for falls and injuries, which often lead to chronic and disabling problems, loss of independence, and potential institutionalization. A fall is defined as an event that results in a person coming to rest inadvertently on the ground or other lower level, other than as a consequence of the following: sustaining a violent blow, loss of consciousness, or sudden onset of paralysis, as in a stroke and an epileptic seizure<sup>12</sup>. Additionally, psychological trauma often referred to as fear of falling, may develop after a fall, and lead to self-imposed restriction of activity and loss of confidence despite the fact that the injuries experienced may

<sup>12</sup> Mahoney et al, Trends, Risk Factors, and Prevention of falls in Older Adults in Wisconsin, 2005

not be functionally limiting.<sup>13</sup> Falls are the leading cause of injury-related deaths in people 65+ in Wisconsin.<sup>14</sup> The economic costs of falls are significant, with a mean hospital cost for fall-related injuries among older adults (reflecting an average of 7 days of hospitalization) of \$17,483 in the US<sup>15</sup> and direct medical costs and productivity losses totaling \$20.2 billion.<sup>16</sup> In 2015, the Medicare costs for non-fatal falls were over \$31 billion.<sup>17</sup>

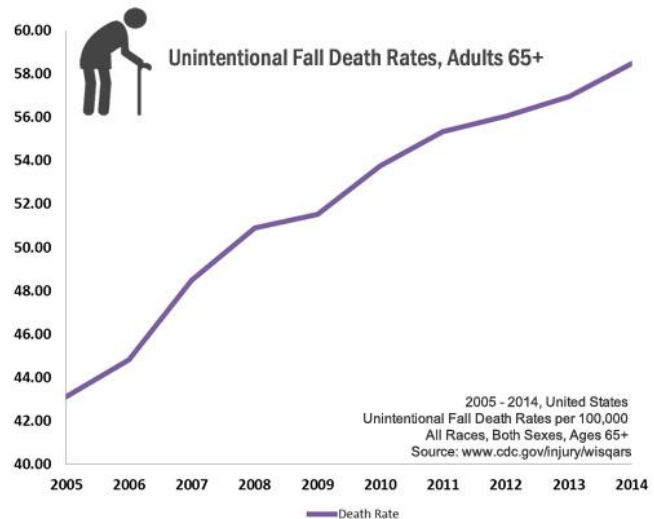
### National data

The statistics on unintended falls in the US are startling. 2.8 million older adults are treated in emergency departments for fall injuries each year, and over 800,000 of them are hospitalized because of a fall injury, most often due to an injury to the head or hip.<sup>18</sup>

These falls are the leading cause of non-fatal injury and death in those 65 years and older<sup>19</sup>, with direct medical costs for fall injuries totaling \$31 billion annually, adjusted for inflation.<sup>20</sup> The death rate from unintended falls has been on the rise in the last decade. However, falls are preventable. The CDC reports that over 1 million falls could have been prevented if 5,000 providers used effective treatment and screening over a five-year period.

Additionally, self-management programs such as Stepping On, Otago, Tai Chi,

among others, have been shown to reduce or even prevent falls. The Stepping On program has been shown to reduce fall risk by 50% and Emergency Department visits by 70%.<sup>21</sup>



### Local data

While falls are an enormous concern nationally, they are particularly concerning locally. Betsy Abramson, the Executive Director of Wisconsin Institute for Healthy Aging, notes why these high rates of falls should be concerning: “Falls are not a normal part of aging and do not affect just frail older people. Even falls without injury can cause fear of falling leading to physical decline, depression and social isolation.<sup>22</sup> Falls are the leading cause of injury-related death in Wisconsin. Moreover, Wisconsin ranks second in fall-related deaths in the US, more than twice the national rate. In 2014, more than 37,000 people aged 65+ went to the Emergency

<sup>13</sup> Fletcher & Hirdes, Restriction in activity associated with fear of falling among community-based seniors using home care services, *Age and Ageing*, 2004

<sup>14</sup> Kopp, B. and Ofstead, C. (2010). *The Burden of Falls in Wisconsin: A Supplement to the Report, The Burden of Injury in Wisconsin*. Injury and Violence Prevention Program, Wisconsin Department of Health Services.

<sup>15</sup> Roundsari et al, The acute medical costs for fall-related injuries among U.S. older adults, *Injury*, 2005

<sup>16</sup> Stevens et al, The costs of fatal and non-fatal falls among older adults, *Injury Prevention*, 2006

<sup>17</sup> Wisconsin Institute for Healthy Aging (2016). “Falls Fact Sheet.”

<sup>18</sup> Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. Accessed August 5, 2016.

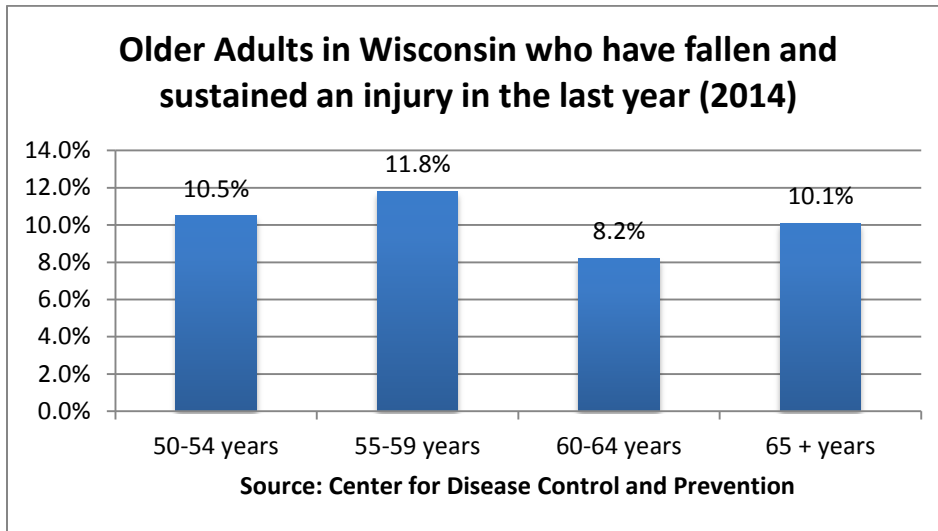
<sup>19</sup> Kramarow, E., Chen, L. H., Hedegaard, H., & Warner, M. (2015). Deaths from unintentional injury among adults aged 65 and over: United States, 2000-2013. *NCHS data brief*, 199, 199.

<sup>20</sup> Burns EB, Stevens JA, Lee RL. The direct costs of fatal and non-fatal falls among older adults—United States. *J Safety Res* 2016:58.

<sup>21</sup> Wisconsin Institute for Healthy Aging (2016). “Falls Fact Sheet.”

<sup>22</sup> Wisconsin Institute for Healthy Aging (2016). “Falls Fact Sheet.”

Department due to a fall. In Wisconsin, 40% of individuals entering nursing homes had a fall in the previous 30 days. This takes a large financial toll; in Wisconsin, fall-related injuries cost hospitals \$771 million, a 55% increase in Emergency Department costs statewide between 2010 and 2014.<sup>23</sup> In Dane County, specifically, 25 people died from a fall-related death in 2008, and there were 1,205 people hospitalized due to a fall-related injury.<sup>24</sup>

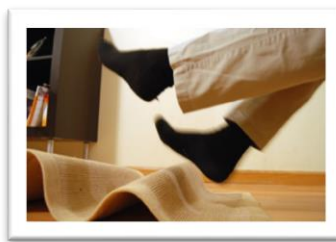


*Programming/result*

UWDC supports the Stepping On Falls Prevention Program in partnership with Safe Communities as well as the Senior Falls Prevention programs offered at various Senior Partner Agencies. These programs have served approximately 1,266 older adults. We've continued to extend our reach in this work to prevent falls by partnering with Home Health United to provide 1,229 in-home safety assessments to older adults who were at-risk for falls (average age over 80), resulting in a fall rate of 19.69% compared to a national average rate of 50%.



In-Home Safety Assessments (SAFE Program)



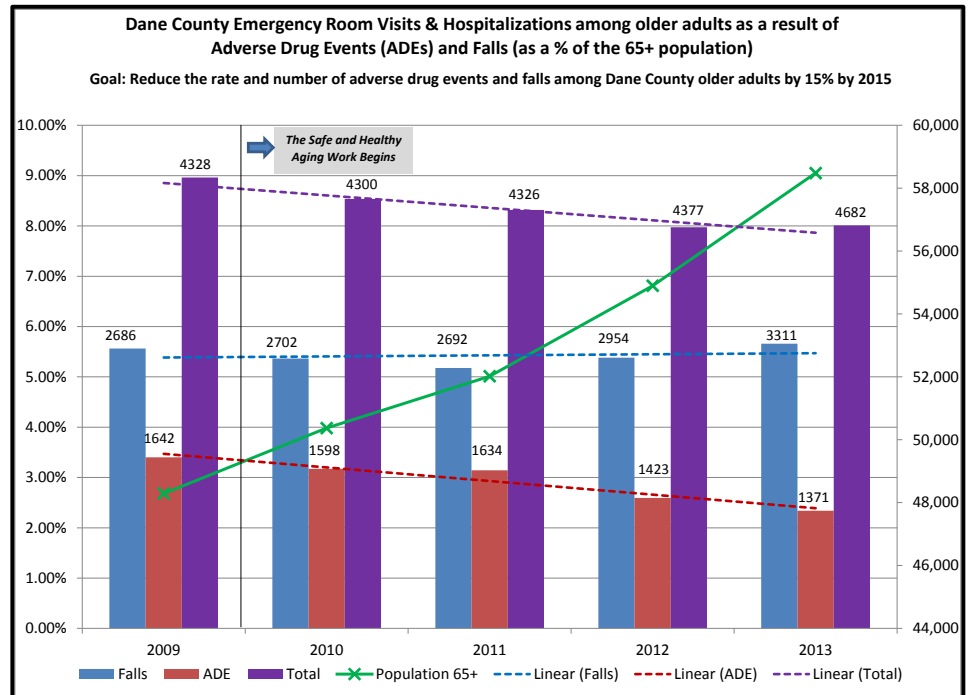
Evidence-Based Falls Prevention

<sup>23</sup> Wisconsin Institute for Healthy Aging (2016). "Falls Fact Sheet."

<sup>24</sup> Kopp, B. and Ofstead, C. (2010). The Burden of Falls in Wisconsin: A Supplement to the Report, The Burden of Injury in Wisconsin. Injury and Violence Prevention Program, Wisconsin Department of Health Services.

Chart 1

We believe that our concentrated efforts implementing various strategies was a contributing factor to the 11% decrease in total emergency room visits and hospitalizations of adults 65+ due to ADEs and falls from 2010 to 2013 (see Chart 1). [Note: 2014/5/6 data not available at the time of publishing]. While the population of men and women rose from about 48,500 to 58,500 (a 20% increase), the number of falls remained constant and the number of adverse drug events fell by 219 incidents (14%) favorably reducing the rate of both.



Expanding our Plan



Safe and Healthy Aging Retreat-CST Members discussing results of initiatives implemented and determining focus of the updated mobilization plan



Content Experts, Dr. Philip Bain and Ashley Hillman, providing information to the Community Solutions Team members

In March 2016, our Self-Reliance and Independence Community Solutions Team evaluated the results of the Safe and Healthy Mobilization Plan thru the end of 2015. Experts from the community were invited to provide their knowledge and advice on the persisting pressing challenges that our older adults face. We also participated in a case study with caregivers to gauge their thoughts on how to motivate and facilitate older adults to seek help regarding their

health concerns. Through this journey, we've learned that Nutrition and Caregiving require greater attention as essential components to keeping older adults safe, healthy, and independent.

We recommend that:

- 1) We continue our work with connecting Caregivers to resources and providing more thought as to how and what can be measured to determine success of this strategy.
- 2) We continue work on ADEs and Falls with emphasis on supporting identification of high risk Dane County older adults with medication reconciliation by our health systems.
- 3) We add nutrition as a strategy, with a focus on providing meals to at-risk seniors in rural areas and in communities of color that aren't currently being served.

These additions and enhancements will support our Signature Initiatives establishing a new community-level goal to reduce the rate of ADEs and falls among older adults by 20% by 2022.

### **A Deeper Look at Nutrition**

The case can be made for proper nutrition because it avoids disease and cost; there is also the human justification that assuring proper nutrition is the only responsible action for a well-resourced community.

Nutrition is an important determinant of health in persons over the age of 65. Good nutrition is critical to sustaining optimal function, no matter what your age. Studies show that the right diet and adequate intake are especially important for older adults and that poor nutrition is a significant threat to an older adult's independence. Over the past decade, our experts affirmed the importance of nutritional status has been increasingly recognized in recovery from surgery and in chronic health conditions including cancer, heart disease, and dementia in persons over the age of 65. Studies of hospitalized older patients suggest that between 20%–65% of these patients suffer from nutritional deficiencies.

The challenge with nutrition often times stems from access. Many communities offer congregate meals in a specific location--often a senior center or other community facility--where older people can easily gather for food, fellowship, fun and reduced isolation. For those older adults who do not have that opportunity, home-delivered meals are an option, provided eligibility requirements are met. Drivers bring home-style, freshly prepared Monday through Friday. Every delivery being check for which Meals on Wheels has become famous. The average cost to provide home over a year is \$3,117 compared to \$77,040 for basic nursing home care. There is no doubt that providing this service is helping homes. In Dane County, there are 27 locations however communities of color and several rural areas throughout Dane County are still underserved.



#### *Overview*

Nutrition is an important and often overlooked aspect of safe and healthy aging. Proper nutrition aids in increased speed of recovery after illness and managing chronic conditions of the

elderly.<sup>25</sup> Healthy eating helps seniors in many ways: increases mental acuity, increases resistance to illness and disease, improves energy levels, increases recuperation speed, and reduces the risk for chronic diseases: heart disease, stroke, diabetes, bone loss, anemia and cancer. Malnutrition in the elderly can lead to increased use of the health care system and increased mortality.<sup>26</sup> Patients over the age of 65 are at an elevated risk of malnutrition due to an increased number of coexisting illnesses and physiological changes. In addition, fighting malnutrition is difficult for the elderly for a variety of reasons<sup>27</sup>: 1) As many as 40% of older Americans have incomes of less than \$6,000 per year, making it hard to get the foods needed to stay healthy; 2) 1/3 of all older people live alone and being with others has been linked to a positive effect on eating; 3) 1 in 5 older adults have trouble walking, shopping, buying and cooking food, thus putting them at risk for malnutrition; and 4) when combined with poor diet, the greater the number of medications seniors take, the greater the chance of side effects.

Home and community-based nutrition programs have been developed in the last few decades to combat malnutrition and improve health outcomes in seniors; the Older American Nutrition Act Nutrition



Programs was enacted by Congress on March 22, 1972. These home-based delivery programs, many of which are referred to as Meals on Wheels, provide

nutritious meals for low-income seniors who are unable to leave their homes to obtain meals or cannot physically prepare the meals by themselves in their own kitchens.<sup>28</sup> According to Assistant Secretary for Aging Kathy Greenlee, since 1972 eight billion meals have been served to older Americans, and the costs of implementing the programs have been offset by the savings in medical costs to Medicare and Medicaid. Delivered meals can help avoid or delay placement in costly long-term care facilities; 4 in 10 home delivered meal participants nationwide meet the criteria for admission to long-term care facilities, yet they are able to live independently due to their meals-on-wheels program. Additionally, one study has shown that elderly individuals who receive home-delivered meals had lower rates of visiting the hospital or Emergency Department after



*Meals on Wheels Volunteer delivering a meal to a client*

<sup>25</sup> Nutrition and Healthy Aging in the Community: Workshop Summary. Vol. 141. The National Academies Press; Washington, DC: 2012.

<sup>26</sup> Buys, D. R., Roth, D. L., Ritchie, C. S., Sawyer, P., Allman, R. M., Funkhouser, E. M., ...& Locher, J. L. (2014). Nutritional risk and body mass index predict hospitalization, nursing home admissions, and mortality in community-dwelling older adults: results from the UAB Study of Aging with 8.5 years of follow-up. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*.

<sup>27</sup> Bales, C. W., Locher, J. L., & Saltzman, E. (Eds.). (2014). *Handbook of clinical nutrition and aging*. (3<sup>rd</sup> Ed.) New York, NY: Springer.

<sup>28</sup> Buys, D. R., & Locher, J. L. (2015). What Does the Evidence Reveal Regarding Home-and Community-Based Nutrition Services for Older Adults?. *Journal of nutrition in gerontology and geriatrics*, 34(2), 81-84.

three and six months of receiving the meals.<sup>29</sup> Another study found that community-dwelling seniors had significant improvements for nutrition, dietary intake, food security, loneliness, and mental well-being after receiving home-delivered meals.<sup>30</sup>

### *National Data*

In 2010, 4.6 million older adults in the US experienced some form of food insecurity, according to the Department of Agriculture. While food insecurity is not the same thing as poor nutrition, they are related. Those living in food insecure households tend to consume diets that are lower in fruits and vegetables, and are at an increased risk of being overweight or obese due to inadequate nutrition.<sup>31</sup> Compared to younger cohorts, food-insecure seniors experienced more severe health complications due to food insecurity. Seniors who are food insecure are 60% more likely to experience depression, 53% more likely to report a heart attack, 52% more likely to develop asthma, and 40% more likely to experience congestive heart failure.<sup>32</sup> Additional research has estimated that 2%-16% of the elderly population may be deficient in protein and calories<sup>33</sup> and 35% are deficient in vitamins and minerals.<sup>34</sup> Malnutrition indicators include involuntary weight loss, abnormal Body Mass Index (BMI), vitamin deficiencies, and decreased caloric intake.<sup>35</sup> Doctors may not recognize malnutrition in the elderly and instead believe weight loss is simply an age-related reduction in muscle mass.<sup>36</sup> Additionally, appetite is often lower in the elderly due to alterations in taste and smell of food, leading to decreased food intake as well as dental problems (including poorly-fitting dentures) that exacerbate nutrition problems.<sup>37</sup>

The following steps are recommended to ensure adequate nutrition of the elderly: (1) take multivitamin supplements, especially if caloric intake is fewer than 1500 calories per day; (2) eat nutrient-dense foods when possible; (3) physicians and caretakers should investigate weight loss of 4% or more; (4) advise elderly individuals and their caregivers about proper nutrition of whole grains, fruits, and vegetables.<sup>38</sup>

### *Local Data*

In Wisconsin, 12.4% of all people are food insecure, and 11.8% of Dane County residents are food insecure, according to Feeding America. Longitudinally, food insecurity in Wisconsin saw sharp increases (as did the rest of the US) during the recession of 2008, and while it has improved since then, it remains higher than the rates before the recession.<sup>39</sup> In Wisconsin in

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<sup>29</sup> Cho, J., Thorud, J. L., Marishak-Simon, S., Frawley, L., & Stevens, A. B. (2015). A model home-delivered meals program to support transitions from hospital to home. *Journal of nutrition in gerontology and geriatrics*, 34(2), 207-217.

<sup>30</sup> Wright, L., Vance, L., Sudduth, C., & Epps, J. B. (2015). The impact of a home-delivered meal program on nutritional risk, dietary intake, food security, loneliness, and social well-being. *Journal of nutrition in gerontology and geriatrics*, 34(2), 218-227.

<sup>31</sup> Heckman, N. (2016). Hunger & Food Security in Wisconsin and Dane County: A White Paper. Division of Policy, Planning & Evaluation.

<sup>32</sup> Feeding America (2014). Spotlight on Senior Health: Adverse Health Outcomes of Food Insecure Older Americans.

<sup>33</sup> Whitehead, C., Finucane, P., Aust, N. Z. (1997). Malnutrition in elderly people. *J Med*. 27(1): 68-74.

<sup>34</sup> Chandra, R.K. (2002) Nutrition and the immune system from birth to old age. *Eur J Clin Nutr*. 56 Suppl 3:S73-6.

<sup>35</sup> Reuben, D.B., Herr, K.A., Pacala, J.T., et al. Geriatrics at your fingertips. 6th ed. Malden, MA: Blackwell Publishing. 2004.

<sup>36</sup> Kane, R.L., Ouslander, J.G., Abrass, I.B.. Essentials of clinical geriatrics. 3rd ed. New York: McGraw-Hill; 1994.

<sup>37</sup> Morais, J.A., Heydecke, G., Pawliuk, J., Lund, J.P., Feine, J.S. (2003). The effects of mandibular two-implant overdentures on nutrition in elderly edentulous individuals. *J Dent Res*. 82(1):53-8.

<sup>38</sup> Wells, J. L., & Dumbrell, A. C. (2006). Nutrition and Aging: Assessment and Treatment of Compromised Nutritional Status in Frail Elderly Patients. *Clinical Interventions in Aging*, 1(1), 67-79.

<sup>39</sup> Heckman, N. (2016). Hunger & Food Security in Wisconsin and Dane County: A White Paper. Division of Policy, Planning & Evaluation.

2013, the Wisconsin Elderly Nutrition program served 1.7 million meals to older adults in 515 community dining centers, and 2.1 million meals were delivered to seniors in their homes throughout the state. These meals provide one-third of the daily nutritional needs for older adults.<sup>40</sup>

Angela Velasquez, Aging Program Specialist for Dane County Area Agency on Aging (photographed to the right), provided our SRI team with an excellent overview of the importance of nutrition as a component for a Safe and Healthy Aging initiative. She emphasized that the average cost to provide home delivered meals for one senior over a year is \$3,117 compared to \$77,040 for basic nursing home care.



### *Programming/results*

Our SRI team currently supports two meals-on-wheels programs: a lunch program offered seven days a week by Home Health United and a dinner program offered five days a week by Independent Living (weekend meals delivered on Fridays). In addition, we support several congregate meal programs offered by senior centers and community centers throughout Dane County, including a Nutrition program by the DeForest Area Community and Senior Center. In 2015, 13% (\$99,300) of our investments went into nutrition programs that served 1,474 older adults. However, we are seeking to invest in targeted outreach to provide meals to at-risk older adults in rural areas and communities of color in locations where they are not currently being served (ex. Blue Mounds, Springfield, Allied Drive, Madison's Far West Side, etc.).

## **A Deep Look at Caregiving**

### *Overview*

The population of seniors in Dane County has grown over the past ten years and will grow at an even faster rate over the next 10 years. And, the life expectancy of people with disabilities continues to increase. Our community is faced with a rapidly growing problem: how can we continue to help seniors and people with disabilities stay in their homes without available resources growing at the same rate?

Over the past two decades public policy has minimized the number of nursing home beds while providing financial support to allow more individuals to stay in the community. The resources for community-based care have increased over time, but have not kept pace with demographic changes. According to the U.S. Bureau of the Census, slightly over 5 percent of the 65+ population occupy nursing homes, congregate care, assisted living, and board-and-care homes, and about 4.2 percent are in nursing homes at any given time. While local home health agencies have experienced an increase of 66% in their patients, the number of family and unpaid caregivers is increasing, and their role is as important to the quality of life of seniors and people with disabilities as it has ever been.

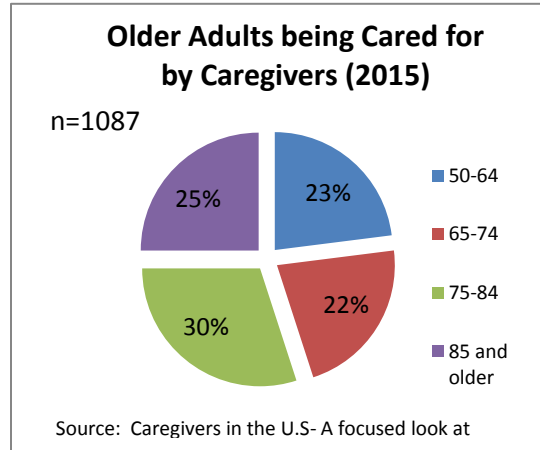
Caregivers assist with activities of daily living, provide assistance with pain management, supervise medication usage, assist with medical equipment, provide social support and arrange for medical and health care services and providers. A large percentage of the adult population provides hands-on care to seniors in our society. At the highest level of caregiver support,

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<sup>40</sup> Wisconsin Department of Health Services. "Wisconsin's Elderly Nutrition Program."



caregivers invest a huge percentage of their time (87+ hours a week) helping their loved ones with a wide range of household tasks, and personal care, including feeding, bathing, dressing, toileting and medication management.



*National Data*

Approximately 43.5 million adults in the US have provided care for a chronically ill, disabled, or aging family member or friend in the last twelve months, and 34.2 million of these individuals have provided care to some aged 50 or older. Caregivers of someone 50+ are 50.3 years old, on average, and most are female (60%). The majority (86%) of 50+ caregivers provide care for a relative, 47% care for a parent or parent-in-law. One in 10 cares for a spouse. One in four caregivers of someone 50+ is providing care to the oldest-old, those who are ages 85 or older. On average, 50+ caregivers' recipients are 74.7 years old.<sup>41</sup> It is important to remember,

though, that caregivers come from every age, gender, social class, and ethnicity. They may share similar positive and negative effects of caregiving, but they may need different support depending upon their own problems, strengths, and resources. However, there are some caregivers who are more vulnerable, including those that are older themselves, those that had no choice in becoming a caregiver, and those that are higher-hour caregivers providing more hours of care per week.<sup>42</sup>

Caregivers help with Activities of Daily Living (ADLs), including getting in and out of beds and chairs (43%), getting dressed (32%), getting to and from the toilet (27%), bathing or showering (26%), feeding (23%), dealing with incontinence and diapers (16%), or any ADL (59%). Additionally, caretakers help with Instrumental Activities of Daily Living (IADLs), including transportation (78%), grocery or other shopping (76%), housework (72%), preparing meals (61%), managing finances (54%), giving medications (46%), arranging outside services (31%), or any IADL (99%). Moreover, 63 percent of caregivers communicate with health care professionals, 50 percent advocate for their care recipient, and fifty-seven percent perform medical or nursing tasks such as administering pills, eye drops, preparing food for special diets, wound care, monitoring blood pressure or operating equipment like hospital beds and oxygen tanks.<sup>43</sup>

The impact of caregiving can be detrimental. Caregivers report poorer health than the general population (17% say their health is fair or poor compared to ten percent of the general population) and experience a downward spiral of health, which deteriorates in relation to the amount of time they spend caregiving and the intensity of the caregiving. Twenty-two percent of caregivers report that their health has gotten worse as a result of caregiving.<sup>44</sup> Family caregivers experiencing extreme stress have been shown to age prematurely; 38% of caregivers report their caregiving situation to be emotionally stressful, and 32% report experiencing physical

<sup>41</sup> National Alliance for Caregiving, AARP. "Caregiving in the U.S.", (2015). Research Report.

<sup>42</sup> National Alliance for Caregiving, AARP. "Caregiving in the U.S.", (2015). Research Report.

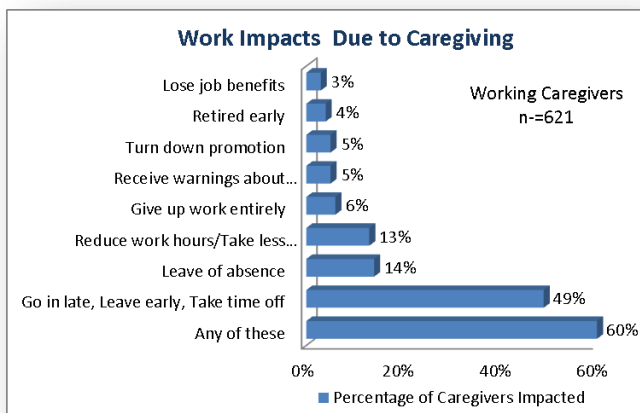
<sup>43</sup> National Alliance for Caregiving, AARP. "Caregiving in the U.S.", (2015). Research Report.

<sup>44</sup> National Alliance for Caregiving, AARP. "Caregiving in the U.S.", (2015). Research Report.

strain.<sup>45</sup> This stress can take as much as ten years off a caregiver’s life.<sup>46</sup> The stress of family caregiving for a person with dementia has been shown to have an adverse effect on a person’s immune system for up to three years after their caregiving ends, thus increasing their chances of developing a chronic illness themselves.<sup>47</sup> Moreover, family caregivers who provide care 36 or more hours weekly are more likely to experience symptoms of depression or anxiety. For spouses the rate is six times higher; for those caring for a parent, the rate is twice as high.<sup>48</sup> Additionally, seventy-two percent of caregivers said they had not gone to the doctor for themselves as often as they should—caregivers often miss their own routine appointments, eat poorly, and can’t sleep.<sup>49</sup> Family caregivers provide 80% of homecare services, although often with little to no training.<sup>50</sup> One-third of family caregivers who change dressings and manage machines receive no instructions.<sup>51</sup>

The economic value of caregiving is substantial. Family and/or unpaid caregivers cover up to 80% of the in-home care provided in the United States. The value of the services family caregivers provide for “free” is estimated to be \$306 billion year; twice as much as is actually spent on homecare and nursing home services combined (\$158 billion).<sup>52</sup> Caregiving families tend to have lower incomes than non-care giving families; forty-three percent of caregiving families have household incomes under \$30,000<sup>53</sup>, and the average household income for US

caregivers was \$45,700.<sup>54</sup> **Sixty percent of caregivers reported making a workplace accommodation such as reducing hours, taking a leave of absence, receiving a warning about performance or attendance.**<sup>55</sup> Moreover, American businesses lose as much as \$34 billion each year as a result of their employees’ need to care for loved ones 50 years of age and older.<sup>56</sup> This is particularly difficult for the caregivers themselves, many of whom are in hourly wage jobs;



they must balance taking care of a loved one with the loss of family income. In one study, a working caregiver lost \$109 per day in wages and health benefits because of the need to provide care at home.<sup>57</sup> Additionally, caregivers who must travel long-distances to provide care

<sup>45</sup> National Alliance for Caregiving, AARP. “Caregiving in the U.S.”, (2015). Research Report.

<sup>46</sup> Peter S. Arno, “Economic Value of Informal Caregiving, 2006.

<sup>47</sup> Proceedings of the National Academy of Sciences, June 2003.

<sup>48</sup> American Journal of Public Health, 2002.

<sup>49</sup> “Caregiving in the U.S.”, National Alliance for Caregiving, July 2006

<sup>50</sup> US Agency for Healthcare Research and Quality, November, 2000.

<sup>51</sup> Henry J. Kaiser Family Foundation Wide Circle of Caregiving, 1998.

<sup>52</sup> Peter S. Arno, “Economic Value of Informal Caregiving,” 2002

<sup>53</sup> NFCA Survey, 2000

<sup>54</sup> National Alliance for Caregiving, AARP. “Caregiving in the U.S.”, (2015). Research Report.

<sup>55</sup> National Alliance for Caregiving, AARP. “Caregiving in the U.S.”, (2015). Research Report.

<sup>56</sup> Met Life study. 2006.

<sup>57</sup> American Council of Life Insurers, March, 2000.

also report higher levels of financial strain, since 41 percent of them require additional paid help.<sup>58</sup>

Institutionalizing an older adult can economically destabilize the elderly individual and the family. Research has shown that aging in place and keeping the elderly in their homes rather than an institution is more cost-efficient to both seniors and their families. The median monthly payment for non-institutionalized long-term care was \$928 compared to \$5,243 for nursing homes<sup>59</sup> and these costs are on the rise. Between 2011-2012, the rate of a room in a nursing home rose by 3.8%, increasing more than the rate of inflation.<sup>60</sup> Thus, these economic burdens are taken on by both the elderly and their family and caregivers, which can add considerable financial burdens to those already mentioned above.

### *Local Data*

The number of caregivers in Wisconsin is estimated at 520,561, providing 538 million hours of caregiving, which has a monetary value of \$7 billion.<sup>61</sup> The National Family Caregiver Support Program (NFCSP) was created by the Older Americans Act, Title III, Section 316. Specifically in Wisconsin, local Area Agencies on Aging contract to provide services; in Dane County, the Dane County Caregiver Program, funded by the NFCSP, provides education, information, and support to family caregivers to help them deal with crises and avoid burnout. There are many other resources available for caregivers in Dane County. Caregivers can also call the Family Caregiver Call-In to talk with experts and caregivers to find resources to care for loved ones. The Aging and Disability Resource center offers free information regarding resources for older adults and people with disabilities, regardless of income, age, or disability.<sup>62</sup>

### *Programming/results*

The Area Agency on Aging of Dane County provides:

- Classes that empower caregivers to better care for a family member and themselves while reducing stress, guilt, and anger. Caregivers learn to problem-solve and communicate more effectively with other family members
- The Caregiver Chronicles which features educational articles and information on workshops and events for family caregivers.
- Caring and Kinship Connection News includes resources for grandparents and “Other Relatives as Parents” Caregiver Program.

*\*The resources mentioned above are available monthly via email or postal mail\**

The Self-Reliance and Independence Team has a history of significant caregiver work (October, 2006 Caregiver Mobilization Plan) and funded caregiver training and support, in-home respite services for caregivers and adult day services that also granted respite for caregivers. This initiative recognized that caregivers experienced physical health problems, psychological stress, financial hardship and risk of job loss due to their caregiving responsibilities. When we launched our Safe and Healthy Aging initiatives in 2011, we continued to support caregiving, but highlighted the focus of ADEs and Falls. The issues of caregivers have not gone away. The

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<sup>58</sup> National Alliance for Caregiving, AARP. “Caregiving in the U.S.”, (2015). Research Report.

<sup>59</sup> Kaye, H. S., Harrington, C. and LaPlante, M. P. (2010). Long-Term Care: Who Gets It, Who Provides It, and How Much? *Health Affairs* 29:1, 17–8, 21.

<sup>60</sup> MetLife Mature Market Institute (2010). Markey Survey of Long-Term Care Costs, 4.

<sup>61</sup> Area Agency on Aging of Dane County (Nov. 2016). Caregiver Chronicles.

<sup>62</sup> Area Agency on Aging of Dane County (2016)

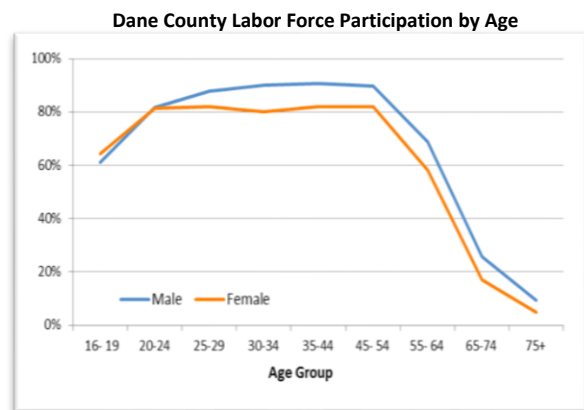
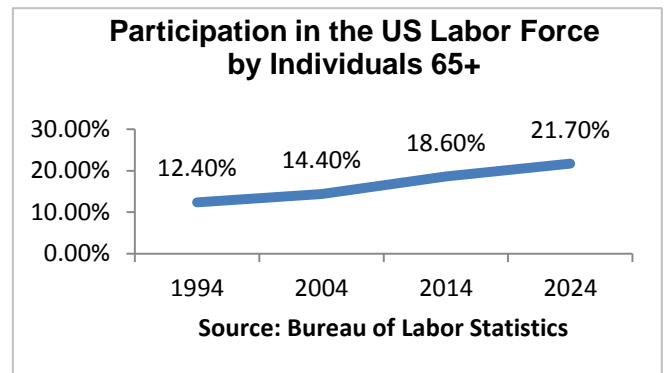
range and intensity of health care services provided by family caregivers is growing, as outlined in our January 2011 mobilization plan. We must address the needs and concerns of caregivers. However, focusing our attention on those needs that allow us to measure our success is how we will proceed over the next five years as we fine tune our lead measures.

## A Sense of Purpose

### National Data

While the absence of falling and the ability to take the right medication impacts older adult's physical health, it does not add to their individual sense of purpose in their own community. A sense of purpose in life, or a sense of meaning and goal directedness, is another factor in healthy aging. More specifically, a sense of purpose helps to alleviate isolation, and has been associated with decreased depression, lowered blood pressure, and a decrease of other disease states, including Alzheimer disease and mild cognitive impairment.<sup>63</sup> A recent study shows that a higher sense of purpose in older adults causes them to physiologically recover from stress more quickly<sup>64</sup> and emotionally recover from negative stimuli.<sup>65</sup> Moreover, a sense of purpose has even been shown to decrease rates of mortality.<sup>66</sup>

An additional point of consideration is participation in the workforce. As the population ages, so does the workforce. In 1994, 12.4% of the US workforce was composed of individuals 65+; this figure was 18.6% in 2014. By 2024, it is projected that 21.70% of the workforce will be individuals aged 65+.



For individuals aged 75+, they made up 5.4% of the workforce in 1994, 8.0% in 2014, and 10.6% (projected) in 2024, doubling the percent of the workforce aged 75+ in two decades.<sup>67</sup>

Whether these individuals are working longer because they need or want to, these statistics reveal how important it is for the elderly to stay safe and healthy in their homes and feel a sense of purpose in their lives. However, if those individuals transition out of the workforce, they may lose particular societal

<sup>63</sup> Boyle, P. A., Buchman, A. S., Barnes, L. L., & Bennett, D. A. (2010). Effect of a purpose in life on risk of incident Alzheimer disease and mild cognitive impairment in community-dwelling older persons. *Archives of general psychiatry*, 67(3), 304-310.

<sup>64</sup> Fogelman, N., & Canli, T. (2015). 'Purpose in Life' as a psychosocial resource in healthy aging: an examination of cortisol baseline levels and response to the Trier Social Stress Test. *npj Aging and Mechanisms of Disease*, 1, 5006.

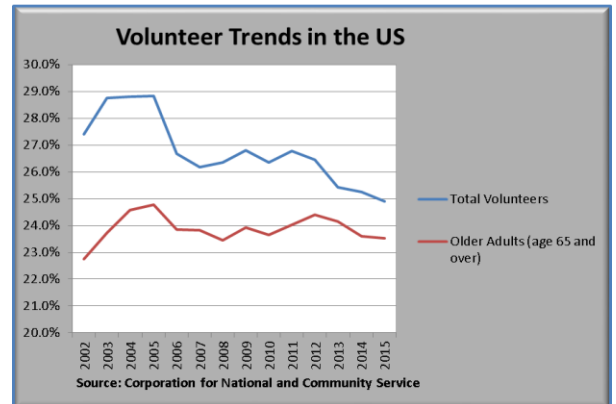
<sup>65</sup> Schaefer, S. M., Boylan, J. M., Van Reekum, C. M., Lapate, R. C., Norris, C. J., Ryff, C. D., & Davidson, R. J. (2013). Purpose in life predicts better emotional recovery from negative stimuli. *PloS one*, 8(11), e80329.

<sup>66</sup> Boyle, P. A., Barnes, L. L., Buchman, A. S., & Bennett, D. A. (2009). Purpose in life is associated with mortality among community-dwelling older persons. *Psychosomatic medicine*, 71(5), 574.

<sup>67</sup> Bureau of Labor Statistics (Dec. 2015). Labor force projections to 2024: the labor force is growing, but slowly. "Monthly Labor Review."

roles and this can be difficult mentally. Organizational volunteering, or helping those who are unfamiliar to a person in an institutional context, is an effective way for older adults to help others while helping themselves to regain a sense of purpose and improve emotional and physical health. A recent meta-analysis has shown that older adults (age 55+) who volunteer in an organizational context, reduced mortality by 24% (controlling for health variables).<sup>68</sup>

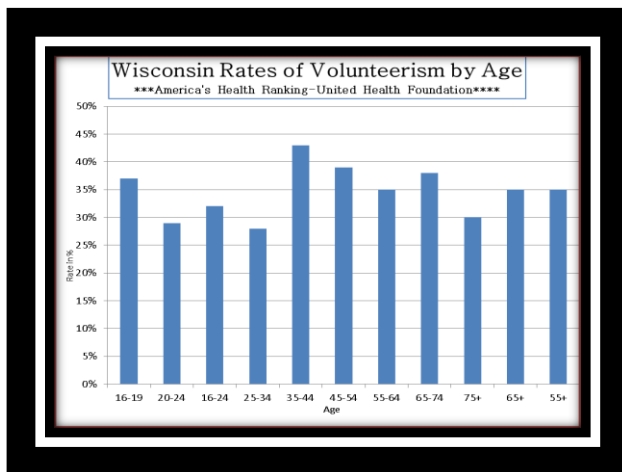
“Productive aging” puts forward the fundamental view that the capacity of older adults must be better developed and utilized in activities that make economic contributions to society, such as working, caregiving, and volunteering. It is suggested that productive engagement can lead to multiple positive ends: offsetting fiscal strains of a larger older population, contributing to the betterment of families and civil society, and maintaining the health and economic security of older adults.<sup>69</sup> This productive aging perspective takes a development approach to addressing the demands of an aging population and views policies and programs as the levers that are needed to achieve fuller engagement.<sup>70</sup>



The rate of older adults 65+ serving as volunteers nationally was 23.5% in 2015. This rate equates to 11 million volunteers with approximately 1.9 billion hours of service.<sup>71</sup>

Local Data

As we reflect on number of volunteers that are engaged through United Way of Dane County’s Agenda for Change areas, we see firsthand the impact that is made not only in the community, but in the lives of the volunteers. According to America’s Health Rankings United Health Foundation, 35% of older adults 65+ volunteered in Wisconsin in 2015 compared to 26.4%



throughout the U.S. The number of volunteer opportunities for older adults in Wisconsin has grown tremendously over the last 10 years. Today there are opportunities for Foster Grandparents to volunteer 15-40 hours weekly through schools, hospitals and childcare centers. There are over 500 Wisconsin residents that serve in this role. The Retired and Senior Volunteer Program (RSVP) is another program that provides volunteer opportunities to our aging population. This program offers older adults volunteer opportunities that match their personal interests and makes use of their skills and

<sup>68</sup> Okun, M. A. and Yeung, E. W. (2013). Volunteering by Older Adults and Risk of Mortality: A Meta-Analysis. *Psychology and Aging*, 28(2) 564-577.

<sup>69</sup> The Gerontological Society of America. Increasing Opportunities for the Productive Engagement of Older Adults: A Response to Population Aging (2015 WHCoA)

<sup>70</sup> The Gerontological Society of America. Increasing Opportunities for the Productive Engagement of Older Adults: A Response to Population Aging (2015 WHCoA)

<sup>71</sup> Corporation for National and Community Service, Older Adults, 2015

lifelong experiences. Participants (upward of 11,000 in Wisconsin) serve from a few to over forty hours a week in organizations that range from hospitals and youth recreation centers to local police stations and schools. Opportunities also include drivers to deliver meals to homebound older adults.<sup>72</sup>

Groups that have been very visible in volunteering in the Dane County Community include the group formerly known as Oscar Mayer's Retired Employees Are Dedicated Individuals (READI). According to WKOW, a local news source in Madison, READI Volunteers logged more than 6,600 hours at Second Harvest Foodbank since 2012. This dedication by these volunteers has given them a sense of purpose. They have chosen a volunteer experience that ensures that all residents in Dane County, especially those in poverty, have enough food to live a happy and healthy life. Many of the initiatives led by United Way in partnership with various agencies have allowed for our volunteers to feel that their life is meaningful. Initiatives such as Strong Roots address the needs of families in poverty. Our focus over the next five years will be to create



greater opportunities for our older adults to engage in volunteerism and serve in the multi-generational approach that involve older adults reaching out to support the entire family, whether it is a relative or a friend. This ultimately helps to not only increase the longevity, viability, and socialization of an aging adult, but grandchildren learn how to care for their elders while the mindset and attitudes of aging are positively displayed in the community to show that Safe and Healthy Aging Matters.

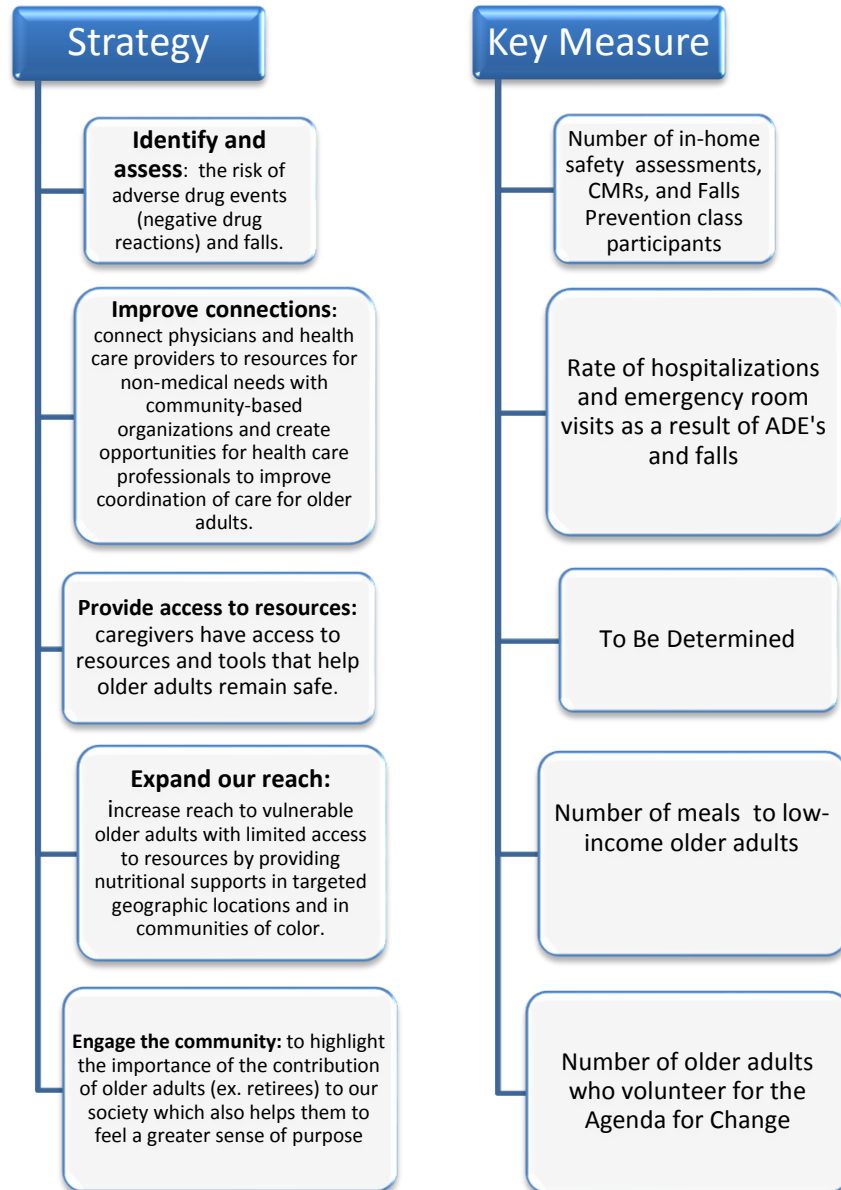


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<sup>72</sup> Wisconsin Department of Health Services, 2016

## Updated Strategies

We will continue our work to reduce adverse drug events and falls among Dane County's older adults by implementing the following updated strategies:





**Appendix A**

**2016 Delegation on Safe and Healthy Aging**

**Co-Chairs**

1. Barbara Nichols, DNSc (hon), MS, RN, FAAN, Executive Director, Wisconsin Center for Nursing (WCN)
2. Tim Bartholow, MD, Vice President & Chief Medical Officer, WEA Trust

**Self-Reliance and Independence Community Solutions Team**

3. Beatrice Christensen, Community Leader
4. Fran Genter, Retired Division Administrator, Dane County Human Services
5. Tim Heaton, Senior VP, Strategic Services, National Guardian Life
6. Carol Koby, Executive Producer/Host, All About Living-Radio 1550
7. Gene Kroupa, Community Leader
8. Myrna Peterson, Retired Executive, Entrust Care Partners
9. Sue Petkovsek, Community Leader
10. Tom Rivers, Community Leader
11. Jim Roseberry, Community Leader
12. Tim Sullivan, Labor Representative, SMART Local 565
13. Dave Topp, Community Leader
14. Jack Turcott, Owner, Turcott & Associates, LLC
15. Peggy Weber, Community Leader
16. Roger Williams, Community Leader

**Medical Community**

17. Philip Bain, MD, Physician, Dean Clinic
18. Barbara Bowers, PHD, Associate Dean for Research, School of Nursing, University of Wisconsin-Madison- Institute on Aging
19. Gina Dennik-Champion, MSN, RN, MSHA, Executive Director, Wisconsin Nurses Association

**Pharmacy**

20. Kate Hartkopf, PharmD, BCACP, Supervisor, Ambulatory Care Pharmacy, UW Health Pharmacy Services
21. Alan Lukazewski, RPh, CDE, CGP, Director of Clinical Pharmacy, WEA Trust
22. Kari Trapskin, PharmD, Vice President of Health Care Quality Initiatives, Pharmacy Society of Wisconsin, WPQC (Wisconsin Pharmacy Quality Collaborative)



**Government**

23. Angela Velasquez, Aging Program Specialist, Area Agency on Aging of Dane County

**Partner Agencies**

24. Janet Bollig, Outreach Manager, Home Health United

25. Linda Green, Executive Director, DeForest Area Community and Senior Center

26. Ashley Hillman, Health Promotions Program Manager, Safe Communities

27. Jim Krueger, Executive Director, North/Eastside Senior Coalition (NESCO)

**United Way Staff**

1. Deedra Atkinson, Senior Vice President, Community Impact

2. Zach Beaver, Development Director, Rosenberry Liaison

3. Keetra Burnette, Senior Director, Stakeholder Engagement

4. Hayley Chesnik, Director, Strategic Collaborations

5. Jocelyn Harmon, Executive Vice President, Community Engagement and Marketing

6. Elena Jimenez-Quiroz, Community Impact Coordinator

7. Toya Johnson, Director, Community Impact – Self-Reliance & Independence

## Beers List

The **Beers List** is a list of medications that are generally considered inappropriate when given to elderly people. For a wide variety of individual reasons, the medications listed tend to cause side effects in the elderly due to the physiologic changes of aging. The list was originally created by geriatrician Mark H. Beers. It was created through consensus of a panel of experts; they were originally published in the Archives of Internal Medicine in 1991 and were updated in 2003. We recommend you consult the list with your physician and your pharmacist.

- alprazolam (Xanax)
- amiodarone (Cordarone)
- amitriptyline (Elavil)
- amphetamines
- anorexic agents
- barbiturates
- belladonna alkaloids (Donnatal)
- bisacodyl (Dulcolax)
- carisoprodol (Soma)
- cascara sagrada
- chlordiazepoxide (Librium, Mitran)
- chlordiazepoxide-amitriptyline (Limbitrol)
- chlorpheniramine (Chlor-Trimeton)
- chlorpropamide (Diabinese)
- chlorzoxazone (Paraflex)
- cimetidine (Tagamet)
- clidinium-chlordiazepoxide (Librax)
- clonidine (Catapres)
- clorazepate (Tranxene)
- cyclandelate (Cyclospasmol)
- cyclobenzaprine (Flexeril)
- cyproheptadine (Periactin)
- desiccated thyroid
- dexchlorpheniramine (Polaramine)
- diazepam (Valium)
- dicyclomine (Bentyl)
- digoxin (Lanoxin)
- diphenhydramine (Benadryl)
- dipyridamole (Persantine)
- disopyramide (Norpace, Norpace CR)
- doxazosin (Cardura)
- doxepin (Sinequan)
- ergot mesyloids (Hydergine)
- estrogens
- ethacrynic acid (Edecrin)
- ferrous sulfate (iron)
- fluoxetine (Prozac)
- flurazepam (Dalmane)
- guanadrel (Hylorel)
- guanethidine (Ismelin)
- halazepam (Paxipam)
- hydroxyzine (Vistaril, Atarax)
- hyoscyamine (Levsin, Levsinex)
- indomethacin (Indocin, Indocin SR)
- isoxsuprine (Vasodilan)
- ketorolac (Toradol)
- lorazepam (Ativan)
- meperidine (Demerol)
- meprobamate (Miltown, Equanil)
- mesoridazine (Serintil)
- metaxalone (Skelaxin)
- methocarbamol (Robaxin)
- methyl dopa (Aldomet)
- methyl dopa-hydrochlorothiazide (Aldoril)
- methyltestosterone (Android, Virilon, Testrad)
- mineral oil
- naproxen (Naprosyn, Avaprox, Aleve)
- Neoloid
- nifedipine (Procardia, Adalat)
- nitrofurantoin (Microdantin)
- orphenadrine (Norflex)
- oxaprozin (Daypro)
- oxazepam (Serax)
- oxybutynin (Ditropan)
- pentazocine (Talwin)
- perphenazine-amitriptyline (Triavil)
- piroxicam (Feldene)
- promethazine (Phenergan)
- propantheline (Pro-Banthine)
- propoxyphene (Darvon) and combination products
- quazepam (Doral)
- reserpine (Serpalan, Serpasil)
- temazepam (Restoril)
- thioridazine (Mellaril)
- ticlopidine (Ticlid)
- triazolam (Halcion)
- trimethobenzamide (Tigan)
- tripeleennamine



United Way  
of Dane County