

### Fall Prevention KEY STRATEGIES FOR SUCCESS



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Archstone Foundation would like to thank the following: Bonita (Lynn) Beatie, PT, MPT, MHA; Janet C. Frank, DrPH; Ellen Caylor Schneider, MBA, and SCP for their research and writing support for this publication.



### **EXECUTIVE SUMMARY**

In the mid-1990s, Archstone Foundation—a private health care-conversion foundation in Long Beach, California—saw the need to build the field of fall prevention into a critical public health issue. Over the next two decades, the Foundation developed a strategic vision to make it happen.

Today, falls are recognized as the leading cause of injury, and death from injury, among adults over 65 in California and across the United States. An older person falls every second of every day. And of the 29 million individuals who, in 2014, reported at least one fall, 27,000 died and seven million were injured.

In 1996, however, when the Foundation made its initial grants to six organizations to advance fall prevention efforts, there was little understanding among the health care community or the public that falls were, in fact, preventable. There was limited evidence-based research about falls, fall risk, and fall prevention outside of geriatric medicine. And at a time when only about one in five Americans went online from work, home, or school, there was limited access to education, tools, and strategies regarding fall risk reduction.

Archstone Foundation developed a far-reaching vision for how to build the field. Starting with grantmaking and coalition-building at the local level in California communities, the Foundation helped build a vibrant statewide network. The hub and coordinating center for the network was the Foundation-funded Fall Prevention Center of Excellence (FPCE), housed at the University of Southern California (USC) Davis School of Gerontology. While building the statewide model, the Foundation also partnered with the National Council on Aging (NCOA) and others to begin addressing falls at the national level. As a result, NCOA developed and implemented a National Action Plan—key provisions of which are now embedded in federal law.

The Foundation's success was rooted in its overarching goals that guided its fall prevention grantmaking throughout:

- Establish fall prevention as a key public health priority in California.
- Build a comprehensive infrastructure and assemble a group of local, state, and ultimately national leaders capable of sustaining evidence-based fall prevention efforts over the long-term.
- Raise awareness to increase understanding of the need to address falls.
- Establish the evidence base for fall prevention by translating fall risk reduction research to evidence-based practices and programs.
- Invest in making proven programs necessary, available, and accessible to older adults and those who care for them.

All told, between 1996 and 2015, Archstone Foundation invested \$12.69 million through a total of 63 grants to build the field of fall prevention and set it on a course to sustainability.

#### **KEY STRATEGIES FOR SUCCESS**

Because Archstone Foundation took the long view of building a fall prevention initiative from the outset, many of the programs it supported are still going strong—years after Archstone Foundation funding in fall prevention ended. The Foundation used 12 Key Strategies for Success designed to build the field, support its grantees, and maximize the impact of its investments:

- 1. Providing Direct Service to Clients/Families.
- 2. Convening Stakeholders.
- 3. Facilitating Funder Collaboration.

- 4. Creating Cross-Sector Partnerships.
- 5. Workforce Development (Professional Education and Training).
- 6. Grantee Convening, Technical Assistance, and Research Support.
- 7. Building Grantee Capacity.
- 8. Policy and Advocacy.
- 9. Building the Science (Research and Data Development).
- 10. Raising Awareness Public Education.
- 11. Dissemination Strategies.
- 12. Promoting Sustainability.

Several of these strategies intentionally focused on making connections among diverse, cross-sector groups. Fall prevention—like so many health and social issues—is complex, with multiple risk factors. It required multidisciplinary and multifactorial approaches, which led to the development of a vibrant network of local leaders and fall prevention coalitions in California. In December 2005, Archstone Foundation and NCOA funded the national *Falls Free Initiative*, which included coalitions around the country, to incorporate the learnings and the California model nationally.

#### **ONGOING IMPACT**

Much of the work funded by Archstone Foundation statewide and nationally is sustained today. Although funding for the Fall Prevention Center of Excellence has ended, the FPCE's website, stopfalls.org, continues to provide a comprehensive set of resources to older adults, their families, caregivers, medical professionals, and researchers interested in fall prevention. In addition, the FPCE continues to serve as an information hub for regional California fall prevention coalitions and the statewide StopFalls

California coalition, which currently has 93 members, including 15 community fall prevention coalitions, as well as health, aging, and senior injury prevention providers. Seven of the 15 coalitions participating are from the original 10 coalitions funded by Archstone Foundation.

Across the nation, more than 30 statewide Falls Free coalitions still operate, addressing the needs of older adults at risk of falls through information, training, and evidence-based programs.

Each year in September, fall prevention awareness events are held in California and across the nation. In 2018, 43 states and the District of Columbia recognized national Fall Prevention Awareness Day, collectively reaching nearly 154.7 million individuals through national, state, and local press releases, Twitter, Facebook, and more. And Archstone Foundation's advocacy efforts led to the creation of California's Fall Prevention Awareness Week, an annual event held since 2008 that continues to increase visibility and public education.

Significantly, the 12 Key Strategies for Success developed for fall prevention continue to guide the Foundation's grantmaking in other areas. It serves as a useful template for philanthropic field-building efforts, one that other foundations and organizations can adopt and adapt as they catalyze positive change around other critically important issues.

For more than two decades, Archstone Foundation has been a thoughtful and persistent advocate, and it remains committed to fall prevention as a key public health issue. Although the Foundation's formal support of the field has concluded, it remains proud of this effort and the programs, policies, and services that the Foundation's partners and grantees continue to deliver on behalf of millions of older adults in California and across the country.



# Fall Prevention: Creating a Field

Falls are the leading cause of fatal and nonfatal injury among older adults in the United States. Every second of every day, an older person falls, according to the Centers for Disease Control and Prevention (CDC). CDC estimates that 29% of older people, or 29 million individuals, reported at least one fall in 2014. Of those who fell, 27,000 died, and seven million were injured.<sup>1</sup>

Older adults who fall often seek care in emergency departments, and require extensive medical care, resulting in high costs. In 2014, CDC estimated that 2.8 million older adults were treated for fall-related injuries, with 800,000 being admitted to the hospital. Fall-related medical expenses totaled \$637.5 million for fatal falls, and \$31.3 billion for fall-related medical care in 2015.

Six out of 10 falls occur in homes. Accordingly, addressing important risk factors like gait and balance impairments while creating a physically supportive home environment are critical to fall reduction and aging in place – the housing option strongly preferred by older adults.



In the mid-1990s, however, there was little public awareness of falls, fall risk, and fall prevention, and seemingly little notice being paid by the health care community outside of geriatrics. Likewise, few, if any, foundations were really talking about falls. However, seminal research was emerging suggesting that many falls in older adults could be prevented through targeted interventions and programs that addressed the risk factors that contribute to falls.

When Archstone Foundation decided in 1996 to focus exclusively on aging-related issues, build collaboration among its grantees, and increase the measurable impact of its funding, Foundation Vice President Mary Ellen Kullman, MPH, was keenly aware of the fall prevention data.

While the Foundation viewed fall prevention as an emerging public health issue, at the time it was not considered an initiative area, much less a funding priority, Kullman recalls. However, when the Foundation put out a broad request for proposals that promoted successful aging in place, falls emerged as a key issue. This was followed by a series of nine grants to six organizations, each of which included fall reduction in their intended outcomes.

In the years that followed, the learnings from those nine "Early Years" grants impelled the Foundation's *Fall Prevention Initiative* and served as the vanguard for state and national efforts that significantly changed the landscape regarding public awareness, evidence-based research, and programs targeting fall prevention.

Today, there is widespread recognition of the importance of fall prevention and the need to address fall risk factors. Each September, the beginning of fall heralds national Falls Prevention Awareness Day, and California has recognized Fall Prevention Awareness Week annually since 2008.

#### THE GRANTS THAT LAUNCHED A MOVEMENT

Collectively, the nine "Early Years" grants proved to be an important investment (in California and nationally), supporting fall prevention research and adding valuable insights into the impact of falls on the lives and health of older adults and their families, as well as on health care costs.

Some of the projects funded by the nine grants focused on the physical environment, while others targeted balance and mobility. All addressed education on fall risk reduction. Here are brief summaries of the "Early Years" grants:

The Home Modifications Action Project (HMAP) & the HMAP Expansion Grant - University of Southern California (USC), Leonard Davis School of Gerontology

**Overview:** An initial three-year grant addressed barriers that limited the availability of home modifications (home mods) at the national, state, and local levels. The first grant funded the development of a replicable home mods coalition in Pasadena, California, (a well-established, combination suburban-urban,

dense community with an older population and older housing) and an expansion grant funded a second coalition in the Santa Clarita Valley (a newer, more rural community with less developed housing, and with residents who would likely need home mods in the decades to come).

**Results:** Supported by HMAP staff, the two coalitions convened local, statewide, and national stakeholders to mobilize resources and promote information sharing between professionals and consumers. Most importantly, they increased awareness around home mods, universal design, accessibility, and visitability standards—an immense impact on the communities and the quality of life of older adults, their caregivers, friends, and families.

Today, home modifications are being addressed through programs like CAPABLE (Community Aging in Place – Advancing Better Lives for Elders), among others, around the U.S. CAPABLE incorporates a nurse, occupational therapist, and handyman to address the home environment, and to improve safety and independence, while addressing function and cost.

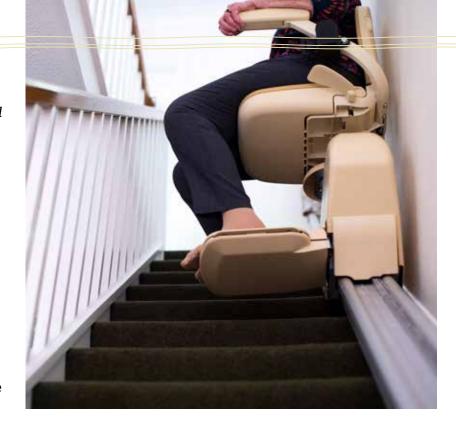
Learnings from the nine "Early Years" grants impelled Archstone Foundation's Fall Prevention Initiative and served as the vanguard for state and national efforts that significantly changed the landscape...

National Resource Center on Supportive Housing and Home Modifications - University of Southern California (USC), Leonard Davis School of Gerontology

**Overview:** In 1999, Archstone Foundation partnered with The California Endowment to invest \$2.5 million over five years to create the National Resource Center on Supportive Housing and Home Modifications. The Center enabled government, the private sector, and service providers to integrate home mods and supportive housing into existing housing and health and social service systems, and it encouraged developers and contractors to build more accessible and supportive housing.

Results: As of 2018, nearly 1,000 individuals had successfully completed the Center's Executive Certificate Program in Home Modification, an online program to train professionals in home mods. The Center's staff have also influenced the development of home mod activities with numerous state and national organizations, from the California Commission on Aging to the National Association of Home Builders, among others. Through support for eight home mods coalitions, and technical assistance provided to others, the Center has improved the availability and visibility of home mods and universal design in communities across the country.

Presently, home mods are gaining attention from insurance payers. In some cases, Medicare and Medicare Advantage may pay for assistive devices that are part of the modification process, provided they are required for medical reasons and prescribed by a physician. Also, in most states, Medicaid—originally intended to help low-income older people cover their nursing home care—now offers Home and Community Based Services (HCBS) Waivers, or at-home services through



managed Medicaid programs or Medicaid State Plans. These programs help qualified individuals avoid nursing home placement, and in many states, pay for home mods or "environmental accessibility adaptions," which increase an individual's ability to live independently.

Balance and Mobility Community Outreach Pilot & The Specialist Instructor Training Program - California State University, Fullerton (CSUF), Ruby Gerontology Center

**Overview:** With three-year funding starting in 1997, this pilot program identified and enrolled non-institutionalized, older

adults with moderate to high risk for falls into an eight-week, group-based program for one-hour sessions, two-days per week. Over 1,000 participants were trained in partnership with an instructor and healthy older adults who served as peer mentors at 18 senior centers throughout Orange County, California. In 2001, Archstone Foundation funded a subsequent grant to create a balance and mobility instructor specialist and peer mentor-training program that provided health professionals and older adult peer mentors with the necessary knowledge and practical skills to implement fall risk reduction programs within community and residential care settings.

**Results:** The pilot showed significant improvements in multiple indicators of frailty (e.g., muscle strength and endurance, flexibility, gait speed, etc.) and an overall reduction in fall risk (between 30 – 40%) among those who completed the program. Today, this pilot is known as the national award-winning FallProof™ Balance and Mobility (FallProof™) program. Of the 108 instructors who enrolled in the evidence-based Balance and Mobility Specialist Instructor Training Program, 72 successfully completed all requirements for certification. In addition, 25 healthy older adults enrolled in the peer mentor portion of the program, with 18 successfully completing all phases. The important takeaway was that small classes were critical to maintain program fidelity and to provide students with facultyguided, "hands-on" training. Now known as the Balance and Mobility Specialist Instructor Certificate Program, it was the first program of its kind to be offered in the United States and Canada. (For more information, see Making a Lasting Impact, page 49.)

#### Project Independence: Functional Fitness in Older Adults

**Pilot** - San Diego State University Foundation

**Overview:** This one-year grant, awarded in 2000, supported a 10-week functional fitness exercise program developed specifically to improve functional status and decrease risk factors for falls in older adults at high risk for fall-related disability. The grant expanded the exercise program to four new San Diego County Senior Center Nutrition Programs and continued the program at four existing sites.

Results: In addition to the eight initial sites, 14 other sites began to implement Project Independence throughout San Diego County Senior Center Nutrition Programs. Attendance was high, and participants demonstrated positive changes in functional abilities and self-efficacy for performing activities of daily living. Results of the pilot, although marginal, were encouraging, demonstrating that—with adequate staff to maintain tight control of the intervention—gains in fitness measures could be seen. And with the additional coaching component, more improvement could be expected.

**Pilot Program to Reduce Falls in Adult Day Health Clients**(ADHC Falls Pilot Program) - Los Amigos Research and Education Institute, Inc.

**Overview:** This three-year grant, awarded in 2001, supported a model fitness-training program for older people with dementia, and a training program for family members, in their homes that provided information regarding environmental barriers,



fall risk factors, supervision and assistance techniques, and the appropriate use of assistive devices.

Results: The ADHC Falls Pilot Program showed that small group exercise was effective for enhancing physical performance and strength in older adults with multiple physical and/or cognitive impairments; and that the safety of older adults was improved if group members were matched closely in physical mobility and the group size was limited to approximately four to nine people. Another important takeaway from the program was that falls among older people with disabilities could be reduced by careful attention to hazards within the home environment and by enhancing the safety skills of the caregiver.

With advanced research, we now know that older people with disabilities lose the ability to scan the environment for safety as their diseases progress. The desire to be independent and move around freely, combined with a lack of safety awareness, poses a risk for falls. Given the high risk for falls, and the difficulty associated with recovery, environmental adaptation remains essential today.

**Adult Activities Center Program Expansion -** *Adult Day Services of Orange County* 

**Overview:** Adult Day Services of Orange County was awarded a one-year grant in 2001 to expand its early stage dementia day programs to include daily gait and balance classes. Alzheimer's disease increases the risk of falls threefold and leads to a loss of activities of daily living, rehabilitative interventions, and for some, institutionalization.

**Results:** Pre-and post-test program results showed that participants in the classes either maintained or improved their scores across time. Other

improvements ranged from continuity of steps and steadiness while turning 360 degrees, to rising from a chair without using arms to push up and maintaining a steady stance when nudged. Although preliminary, due to the small number of participants (10) who completed the pre- and post-test, the data suggested that gait and balance classes could benefit persons with early stage dementia.

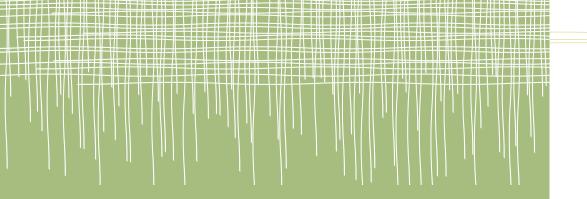
**Project Independence -** South County Senior Services, Inc.

**Overview:** This two-year, collaborative effort provided a continuum of integrated services to meet the medical, physical, social, psychological, and emotional needs of older people, their families, and caregivers. Project Independence included a wellness program, which offered screenings and fitness classes that addressed fall prevention, balance and mobility, and preventive health education workshops.

**Results:** Outcomes showed that all participants gained an awareness of factors involved in falling. While the number of clients who participated and were qualified to be a part of the program evaluation, were substantially higher (136) than projected (75), fewer than half of the participants indicated that their fear of falling had either improved or at least had not gotten worse.



Project Independence provided a continuum of integrated services to meet the medical, physical, social, psychological, and emotional needs of older people, their families, and caregivers.



Convenings helped to create and leverage statewide and national partnerships and to develop leadership, while purposefully navigating through complex issues around fall prevention. They also provided Archstone Foundation an opportunity to raise awareness and to identify and fund targeted skills important to addressing fall prevention.

#### THE POWER OF CONVENING

Archstone Foundation recognized early on the importance of convenings to bring together grantees, stakeholders, and leadership to build the field of fall prevention. Convenings helped to create and leverage statewide and national partnerships and to develop leadership, while purposefully navigating through complex issues around fall prevention. They also provided the Foundation an opportunity to raise awareness and to identify and fund targeted skills important to addressing fall prevention. This commitment to building relationships and networks helped pave the way for future success.

In December 2001, Archstone Foundation hosted its first convening, bringing together leadership from the six "Early Years" grantee organizations for the first time. There, they identified common resources and needs, and shared ideas to advance fall prevention across the state of California. The success of that first convening inspired the strategic decision to bring the grantee leadership together again in 2003, only this time to intentionally expand the gathering to include thought leaders and stakeholders from around the state and nation. The goal was to host a statewide invitational conference to develop a blueprint to reduce the risk of falls in California.

The conference, held in February 2003, brought together over 160 leaders from academia, the California legislature, community-based services, health care, consumer advocacy, aging networks, housing, public health, public safety, and other fall-related areas. Action strategies that incorporated a common public health approach were developed and detailed in the landmark *Creating a California Blueprint for Fall Prevention: Proceedings of a Statewide Conference* consensus report.

The *California Blueprint* describes innovative approaches to reducing the risks of falls and the challenges to implementing fall prevention in California. One of the top recommendations was the creation of a coordination center that could serve as a statewide resource and lead efforts in fall prevention. This recommendation eventually led to the creation of the Fall Prevention Center of Excellence (FPCE) in 2005.

Collectively, the recommendations in the *California Blueprint* served as a guide for moving the field forward. In addition to serving as the impetus behind the FPCE, the report led to discussions about—and the launch of—Archstone Foundation's *Fall Prevention Initiative* in 2005. It also helped set the stage for increased recognition of the importance of fall prevention in California, nationally, and, some might say, internationally.





# Building the Infrastructure

To implement the action strategies and common themes identified in the 2003 *Creating a California Blueprint for Fall Prevention* report, Archstone Foundation began putting in place the building blocks and connecting processes to create a network of partners that could shape the field through fall prevention programs, research, direct service, policy and advocacy, and education.

Or, as Dr. Debra Rose, co-director of the Fall Prevention Center of Excellence (FPCE) put it, Foundation staff "rolled up their sleeves" to be part of the work—connecting grantees, bringing in new opportunities, elevating the FPCE, and helping to raise fall prevention to a national issue. "Archstone Foundation was involved in all things, their representation was always there, and their support went way beyond the financial," Dr. Rose says.

One of the important learnings Archstone Foundation gleaned through its "Early Years" project funding and statewide convenings was that identifying the right leadership, supporting the champions, and creating a statewide, stable infrastructure would be essential to building the field. With key leadership to draw from, champions to move the agenda forward, and a stable infrastructure, Archstone Foundation began to implement its vision and goals for fall prevention, and ultimately lead change, through its *Fall Prevention Initiative*.

Launched in 2005 with a commitment of \$8 million in funding over five years, the *Fall Prevention Initiative*:

- Improved the quality and coordination of fall prevention services for older Californians.
- Developed model projects and best practices.
- Focused on strong community partnerships that led to high-level coordination and the implementation of multifactorial programs to reduce falls.
- Supported the creation of a Center of Excellence to serve as a coordinating body for fall prevention activities across California.

The Fall Prevention Initiative established fall prevention as a key public health priority in California, educated thousands of consumers and professionals about fall prevention, and supported the implementation and evaluation of effective and sustainable fall prevention programs across the country.

Archstone Foundation incorporated a framework of 12 Key Strategies for Success into its *Fall Prevention Initiative*. Together, they formed a distinct and tightly knit quilt, with each strengthening the whole by adding an essential dimension. These funding strategies continue to guide other major funding initiatives mounted by Archstone Foundation today. They are:

- 1. Providing Direct Service to Clients/Families.
- 2. Convening Stakeholders.
- 3. Facilitating Funder Collaboration.
- 4. Creating Cross-Sector Partnerships.
- 5. Workforce Development (Professional Education and Training).
- Grantee Convening, Technical Assistance, and Research Support.
- 7. Building Grantee Capacity.
- 8. Policy and Advocacy.
- 9. Building the Science (Research and Data Development).
- 10. Raising Awareness Public Education.
- 11. Dissemination Strategies.
- 12. Promoting Sustainability.

The Fall Prevention Center of Excellence (FPCE) served as the coordinating center to develop the capacity for new and existing fall prevention programs. Led by three co-directors—Jon Pynoos, PhD; Debra J. Rose, PhD, FNAK; and Lawrence Z. Rubenstein, MD, MPH, FACP—it also helped to promote the Foundation's vision of fall prevention as a field, as well as an important public health issue locally and nationally.

In addition to creating the FPCE, the *Fall Prevention Initiative* also included local and regional coalitions, model projects, and national efforts in fall prevention.

To support Archstone Foundation in executing its funding strategies and the *California Blueprint*, a network of organizational leaders established relationships, with the common understanding that falls were an expensive, preventable public health problem, and an important concern to confront as one.

Archstone Foundation examined what was feasible given its resources, identified partners, organizations, and leadership capacity, and buckled in for the next 10 years with a dedication to fall prevention and building the field and the infrastructure to support it.



# Jon Pynoos, PhD

Co-Director of the FPCE

The Foundation took on a single issue and stuck with it. In my experience, most foundations fund an issue for only one or two cycles and then move on.



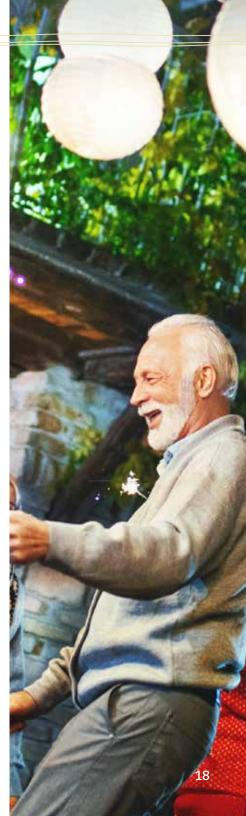
### ASSEMBLING A TEAM OF LEADERS AND CHAMPIONS

Archstone Foundation brought together state and national leaders, each of whom contributed unique expertise. Their insights and experience helped create and implement a fall prevention infrastructure, lead programs, conduct research, raise awareness, and change policy. While the Foundation provided the funding, the *Fall Prevention Initiative's* success was incumbent upon these leaders.

Archstone Foundation is grateful to all those who contributed to building the now widely recognized field of fall prevention. In particular, the Foundation recognizes the leaders and champions who were essential to the success of its *Fall Prevention Initiative*.

- Barbara Alberson, MPH, worked with the FPCE while serving as the Section Chief, State and Local Injury Control, California Department of Public Health. Currently, leads fall prevention efforts as the Senior Deputy Director, Policy and Planning, San Joaquin County Public Health Services.
- **Gretchen Alkema**, PhD, was an Evaluator with the FPCE. Currently, Vice President, Policy and Communications, The SCAN Foundation.
- Bonita (Lynn) Beattie, PT, MPT, MHA, was Vice President, Injury Prevention; and Lead, Falls Free Initiative at National Council on Aging (NCOA). (Retired)
- Steven Castle, MD, was and continues to be Clinical Professor of Medicine/Geriatric Medicine, UCLA; Associate Director for Clinical Programs, VA Greater Los Angeles Healthcare System, Geriatric Research, Education, and Clinical Center (GRECC).
- Caroline Cicero, PhD, MSW, MPL, was a Research Assistant at the FPCE. Currently, Instructional Assistant Professor, Leonard Davis School of Gerontology, USC.
- Maria Henke, MA, was Program Manager and Director of Communications at the National Resource Center on Supportive Housing and Home Modification, and the FPCE. Currently, Senior Associate Dean, Leonard Davis School of Gerontology, USC.
- **B. Josea Kramer**, PhD, MS, MA, was the Evaluator for the FPCE InSTEP program. Currently, Associate Director for Education/Evaluation, VA Greater Los Angeles Healthcare System, GRECC; Professor, David Geffen School of Medicine, UCLA.

- Mary Ellen Kullman, MPH, Vice President, Archstone Foundation
- **Phoebe Liebig**, PhD, was an Evaluator at the FPCE. (Retired)
- **Greg Misiaszek**, PhD, was a Program Manager at the FPCE. Currently, Assistant Professor, Beijing Normal University.
- Emily Nabors, MSG, was and continues to be a Program Manager at the FPCE.
- Julie Overton, MSG, MHA, was the Program Manager of the National Resource Center on Supportive Housing and Home Modification. Currently, Training and Resource Development Specialist for the National Resource Center on Supportive Housing and Home Modification and the FPCE Executive Certificate Program in Home Modifications Coordinator.
- **Jon Pynoos**, PhD, Co-Director, the FPCE. Was and continues to be Director, National Resource Center on Supportive Housing and Home Modification, and UPS Foundation Professor of Gerontology, Policy and Planning, USC.
- Anna Quyen Do Nguyen, OTD, OTR/L, was a Research Scientist at the FPCE. Currently, Director, Internship Program, USC.
- Debra Rose, PhD, Co-Director, the FPCE. Was and continues to be Professor, Department of Kinesiology and Director, Center for Successful Aging, California State University, Fullerton (CSUF).
- **Bernard A. Steinman**, PhD, was a Research Assistant at the FPCE. Currently, Assistant Professor, Department of Family and Consumer Sciences, University of Wyoming.
- Nancy Whitelaw, PhD, was founding Director, Center for Healthy Aging, NCOA. (Retired)
- Rachel Zerbo, MPH, worked with the FPCE while serving as Project Manager, California
   Department of Public Health, Epidemiology and Prevention for Injury Control (EPIC). Currently,
   Coordinator, San Joaquin County Public Health Services' Injury Prevention Program.



# PUTTING EXCELLENCE CENTER STAGE

Of all the ideas that emerged from the 2003 *California Blueprint* invitational conference to move the field of fall prevention forward, probably the most critical was the importance and value of having a central clearinghouse or coordinating body to share information, facilitate networking, and encourage training.<sup>3</sup>

When Archstone Foundation announced its new Fall Prevention Initiative in 2005, the Fall Prevention Center of Excellence (FPCE)—the first of its kind in the field—became the centerpiece of its investment. The Foundation committed more than \$3.8 million to create the center, which was intended to serve a broad audience, including older persons and their families, professionals, program administrators, and policymakers. Its mission—which continues today—is to provide leadership, create new knowledge, and develop sustainable fall prevention programs.

#### Initial FPCE goals were to:

- Establish fall prevention as a key public health priority in California.
- Create, test, and evaluate effective and sustainable fall prevention programs.
- Build a comprehensive fall prevention infrastructure in California.

Over time, the FPCE goals and objectives were modified to reflect changes in external factors, such as the development of new evidence-based programs, lessons learned, and the need to train a competent workforce in fall prevention.

The FPCE was designed as a consortium of five academic and public sector partners in California for two important reasons. Its leadership needed to represent multifaceted expertise in health care, public health, exercise-based fall risk reduction, and home modifications—all necessary to take on fall prevention. It was also important to have public and private partnerships that together could support building a field in fall prevention through research, education, practice (direct service), policy and advocacy, and programs for fall prevention.

The center is located at the University of Southern California (USC) Leonard Davis School of Gerontology. The consortium members brought well-documented expertise in fall prevention research, raising public awareness, training, strategic planning, and consensus building:

- California Department of Public Health, State and Local Injury Control.
- Center for Successful Aging, California State University, Fullerton (CSUF).
- University of California, Los Angeles (UCLA), School of Medicine.
- University of Southern California's Andrus Gerontology Center.
- VA Greater Los Angeles Healthcare System, Geriatric Research Education and Clinical Center (GRECC).

The selection of the three original Co-Directors of the FPCE helped ensure the center's success:

- Jon Pynoos, PhD, a pioneer in fall prevention and home modification, was one of the three original Co-Directors of the FPCE, and remains its Director today. As the UPS Foundation Professor of Gerontology, Policy and Planning at the USC Leonard Davis School of Gerontology, Dr. Pynoos has dedicated his career to improving housing and long-term care for older adults. A founding member of the National Home Modification Action Coalition, he was instrumental in the success of both the FPCE and the broader Fall Prevention Initiative.
- The selection of Laurence Z. Rubenstein, MD, MPH,
   FACP, as a Co-Director illustrated the Foundation's
   early recognition of the important role of medical care
   providers in fall prevention. Dr. Rubenstein's leadership
   of the VA Greater Los Angeles Healthcare System, GRECC,
   created opportunities to develop provider tools and
   assessment protocols, including the STEADI (Stopping
   Elderly Accidents, Deaths & Injuries) toolkit of educational
   materials and clinical assessment tools that is still used all
   over the world.
- Before being chosen as one of the founding Co-Directors
  of the FPCE, Debra Rose, PhD, Professor in the Department
  of Kinesiology and Director of the Center for Successful
  Aging at California State University, Fullerton, led one of
  the "Early Years" funded projects: the Balance and Mobility
  Community Outreach Program, and the subsequent
  program expansion named the FallProof™ Balance and
  Mobility Program.

It should be noted that Phoebe Liebig, PhD, also contributed greatly to the FPCE's success in her role as an Evaluator for many years. Liebig helped develop six Technical Assistance briefs on important topics to assist coalitions in their development and their work, and is now retired.

Greg Misiaszek, PhD, a former FPCE Program Manager, noted that Archstone Foundation and the FPCE brought together a broad range of partners across silos of academia, government, and community; created a catalyst for the advancement of ideas; forged partnerships; and pushed the fall prevention agenda locally, statewide in California, nationally, and internationally.

The FPCE served as the "hub" for fall prevention activities across the state. It became the vehicle to execute the *California Blueprint* and Archstone Foundation's *Fall Prevention Initiative*, including organizational capacity building, evaluation and research, public education and training, cross-sector collaborations, technical assistance, and workforce development.

It also served to better understand and identify causes of risks associated with falls, and to develop effective interventions at individual, program, and systems levels.

The Fall Prevention Center of Excellence was the first of its kind in the field, and became the centerpiece of Archstone Foundation's investment.



# FORGING COALITIONS IN CALIFORNIA

To build a comprehensive, effective statewide fall prevention infrastructure, Archstone Foundation developed a change agent model starting from the ground level up.

In the first two years after the FPCE was launched, the Foundation awarded model program expansion grants to organizations and/or community partnerships to integrate multifactorial fall prevention components—like balance and mobility (physical activity), medical management (risk assessment and follow-up), or environmental assessment and modifications—into their existing fall prevention programs and/or services. (For more information, see "Cultivating the Science," page 40.)

The Foundation also awarded two rounds of grants to create 10 community coalitions across California that brought together a diverse mix of organizations to promote fall prevention. Collectively, these coalitions formed community networks of fall prevention stakeholders across disciplines, departments, and public and private sectors in counties across California. They conducted community needs assessments, identified priorities, developed strategic plans to address their communities' needs, and conducted at least one activity to coalesce community engagement.

The community coalitions furthered the Foundation's intention of creating an effective infrastructure for fall prevention across the state, while involving hundreds of organizations working together with the common goal of promoting fall prevention. In



addition to funding, the coalitions received technical assistance and evaluation support provided by the FPCE. An 11th fall prevention coalition, this one in Los Angeles, was funded by Kaiser Foundation Health Plan and Hospitals Southern California Region. The FPCE leveraged support from Archstone Foundation to provide it with technical assistance and coalition capacity building.

While building a network of coalitions at the local level, Archstone Foundation and the FPCE also played a key role in launching a state-level coalition: StopFalls Network California (now known as StopFalls California). The coalition grew out of workgroups following the Archstone Foundation-supported 2005 Senior Injury Prevention Partnership conference, which included a half-day preconference session hosted by the FPCE on creating a statewide fall prevention partnership.

The challenge was taken up by attendees, and StopFalls Network California was created as a collaboration with the California Department of Public Health, with technical assistance from the FPCE and leadership from fall prevention coalitions funded by Archstone Foundation.

StopFalls California continues to provide an overarching umbrella for the work of community coalitions. It remains an effective advocate for programs and policies that help older adults maintain their independence and enhance their quality of life by reducing falls and fall injuries. It maintains communication across, and within, the California network of coalitions and it allows for the sharing of ideas and products, research, funding opportunities, activities for replication, and opportunities to learn from each other's work.

The community coalitions furthered Archstone
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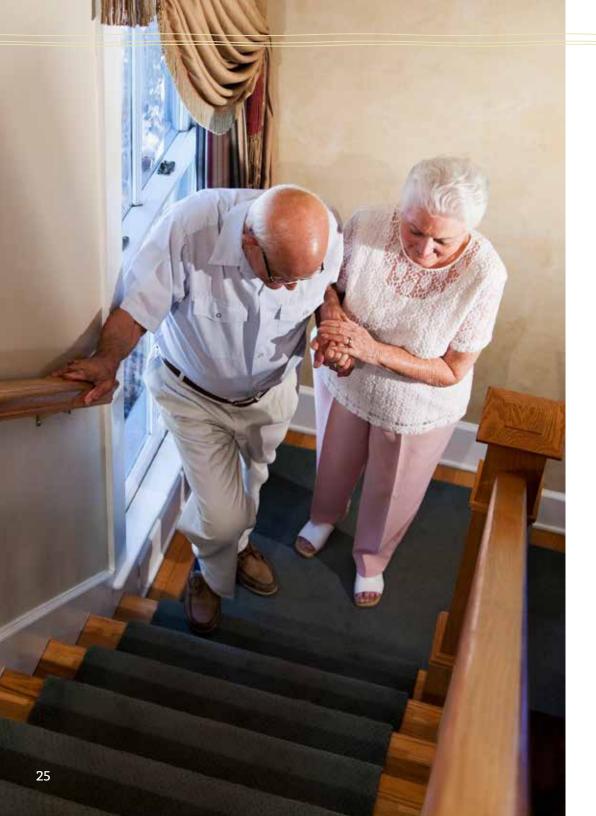


The FPCE and its partners, the California community coalitions, and StopFalls California navigated challenges, identified lessons learned, and developed important tools for coalition building and moving the field of fall prevention forward in the state. Together, they demonstrated how to promote a multifactorial suite of services in the community and shared resources with other states and national stakeholders. With funding from Archstone Foundation, this group positioned California to serve as a model and a rich resource for national efforts in fall prevention.

### SUPPORTING CHANGE AT THE NATIONAL LEVEL

Archstone Foundation made an intentional decision to invite national fall prevention experts, including leaders from the U.S. Centers for Disease Control and Prevention (CDC) and National Council on Aging (NCOA), to participate in the 2003 *California Blueprint* conference.

In December 2003, Archstone Foundation awarded its first fall prevention grant to NCOA to implement the national arm of its *Fall Prevention Initiative*, and to work with experts to design and hold a two-day national summit. The summit would culminate in a national action plan with goals and strategies designed to raise public awareness and to effect sustained efforts to reduce falls among older adults.



NCOA's vision was that older adults would have fewer falls and fall-related injuries, maximizing their independence and quality of life. To make that vision a reality, NCOA's Center for Healthy Aging, through the leadership of Bonita (Lynn) Beattie, PT, MPT, MHA, established a national planning committee with representation from Archstone Foundation, the Home Safety Council, FPCE, CDC, health care, research, and others.

The two-day Falls Free: Promoting a National Falls Prevention Action Plan summit, modeled on the California Blueprint conference, was held in December 2004, with 66 representatives from 57 organizations in attendance. The resulting national blueprint, Falls Free: Promoting a National Falls Prevention Action Plan, included nine goals and 36 evidence-based strategies to address challenges related to a national fall prevention initiative and to share the best thinking of leading fall prevention experts across diverse fields.

The National Action Plan, released at the 2005 American Society on Aging and NCOA Joint Conference on Aging, was downloaded nearly 47,000 times in its first year of publication. (It was updated in 2015.)

In December 2005, Archstone Foundation approved \$200,000 in funding for NCOA's Falls Free® Initiative to implement the strategies and action steps of the National Action Plan. Specific Falls Free® Initiative goals included:

- 1. Serving as the national center for fall prevention.
- $2. \quad \text{Strengthening the fall prevention efforts of state coalitions.} \\$
- 3. Providing fall prevention leadership and technical assistance to federal aging service agencies and national organizations.
- 4. Promoting strategic involvement of the aging network's leadership in fall prevention.

"The coalitions were a huge influence on the [NCOA] center and a critical model of what that could look like," says Dr. Nancy Whitelaw, former director of NCOA's Center for Healthy Aging. "[It] never would have happened without Archstone Foundation [grants]."

By investing simultaneously at the local, state, and national levels, Archstone Foundation was able to maximize the impact of its funding to advance fall prevention from local communities to Washington, D.C. It was a strategy that helped considerably in raising awareness and successfully advocating for policy changes at the state and national level.

### Nancy Whitelaw, PhD

Former Director, NCOA Center for Healthy Aging

The coalitions were a huge influence on the [NCOA] center and a critical model of what that could look like. [It] never would have happened without Archstone Foundation [grants]. ??



# Advancing Awareness, Education, and Advocacy

When Archstone Foundation began funding its work in fall prevention, falls were widely viewed as a natural part of aging, rather than a preventable public health concern. Not only were older adults largely unaware how to reduce fall risk, but that lack of awareness was shared by multiple stakeholder audiences, including family members, caregivers, social service and health care professionals, first responders, consumers, and building contractors, among others.

Beyond awareness, local health departments, services providers for older adults, other community-based organizations and businesses, and the general public lacked access to fall risk reduction education, tools, and strategies.

Archstone Foundation understood that raising awareness and building momentum around fall prevention and fall risk was critical to driving policy changes at the state and federal levels and to building the field.

With its *Fall Prevention Initiative*, Archstone Foundation incorporated comprehensive strategies for building awareness of the importance and value of fall prevention, educating the public, and advocating for policy changes.

Alongside Archstone Foundation, the Fall Prevention Center of Excellence (FPCE) was at the core of those efforts, developing educational materials and tools for consumer education and for coalitions and their partners to help raise awareness. Together, they supported policy change through direct educational meetings with policymakers, working with state-level departments, and assisting advocacy efforts by the FPCE and local coalitions.

Once again, local, state, and national convenings played a key role in disseminating information and advocating for change. The Foundation supported summit meetings at the state and national level, in addition to professional networking opportunities, educational activities, and recognition awards at national conferences.

### 'KEEPING A STEADY DRUMBEAT ON THE ISSUE'

Fall prevention is a multifaceted public health issue, requiring many organizational partners to work together to increase visibility, share best practices, and promote effective strategies to address the complex nature of fall prevention.

"The convenings were really powerful in keeping a steady drumbeat on the issue – that was paramount," Gretchen Alkema, PhD, a former evaluator with the FPCE, notes. "There were many people who were connected to the issue, but there wasn't any place for them to go with it previously ... Archstone Foundation created that and tapped into professionals' inherent desire

to see the impact of falls on people and families' lives. They were able to create that energy."

Building on the work and momentum of the 2003 *California Blueprint* invitational conference, Archstone Foundation and The California Wellness Foundation sponsored the 2007 California Fall Prevention Summit, Progress, Challenges and Next Steps, in Long Beach, California.

One hundred forty stakeholders attended and shared the latest developments in the field of fall prevention. Summit attendees were divided into five topical interactive working groups: community programs; education and training; health care; healthy lifestyles and recreation; and safe housing and communities.

Together, participants developed 22 policy recommendations along with strategies and practical action steps for implementation. In addition, four cross-cutting recommendations were generated that spanned issues across the working groups and set immediate priorities for future work:

- Institute a statewide "Fall Prevention Awareness Week," with a governor's proclamation, press events, and public awareness activities.
- 2. Establish a permanent statewide fall prevention task force that includes the California Departments of Aging, Public Health, Health Care Services, Housing, and Transportation, to coordinate state-level programs and activities.
- 3. Convene a statewide fall prevention summit every three years.
- 4. Develop and widely disseminate culturally appropriate fall prevention information to community organizations serving older adults.

# EDUCATING THE PUBLIC ABOUT FALL RISK REDUCTION

Educating the public and professionals about fall risk reduction was accomplished both one person at a time, through programs typically sponsored by local consortia and conferences, and by the thousands, through what was then still a relatively new mass communications medium: the internet.

To be effective, Archstone Foundation knew it would be important to identify and implement strategies to reach all audiences that could potentially benefit from educational resources about fall prevention. Research supports that incidence of falling is reduced when the risk of falling is removed or lessened through education and interventions. In addition to reaching a diverse audience, the Foundation understood that, to be effective, fall prevention dissemination activities also needed to influence local, state, and national efforts to increase awareness and reduction of fall risk.

The FPCE leadership had expertise in web-based education and dissemination of information and used these communication skills effectively to advance fall prevention education and awareness. Perhaps the best example of how the FPCE used both digital and print strategies to share information is the *stopfalls.org* website it launched in June 2005.

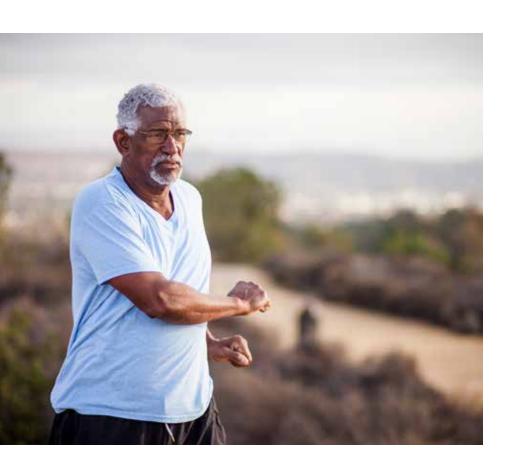
### Gretchen Alkema, PhD

Former Evaluator, FPCE

powerful in keeping a steady drumbeat on the issue – that was paramount. There were many people who were connected to the issue, but there wasn't any place for them to go with it previously ... Archstone Foundation created that and tapped into professionals' inherent desire to see the impact of falls on people and families' lives. They were able to create that energy.







Stopfalls.org was intended for a wide range of audiences, including consumers, professionals, and researchers. The website offered fall prevention and fall risk reduction educational fact sheets, exercise booklets, and other resources. FPCE produced a multitude of materials for the general public and a variety of professionals. They are still available on the website. The Center created and distributed multilingual materials in English, Spanish, Chinese, Armenian, Russian, Vietnamese, and Korean. It also produced and distributed fall risk assessment and care guidelines to more than 5,000 physicians in the form of a "pocket guide."

The *stopfalls.org* website became a national resource for fall prevention education, referrals, and links to a variety of resources. Enduring materials developed by the FPCE were distributed by hard copy and the internet, educating hundreds of thousands on fall prevention. The FPCE disseminated 64,000 hard copy materials, and Stopfalls.org received more than 110,000 visits annually.

A second website developed by the FPCE, homemods.org, is another success story. For a long time, it was the only non-commercial home modifications website, recalls Maria Henke, MA, former Program Manager and Director of Communications at the National Resource Center on Supportive Housing and Home Modification, and the FPCE. By 2015, it too was the most visited home modification website, with more than four million views.

The FPCE also partnered with the Fall Prevention Coalition – Los Angeles, and the City of Los Angeles Department of Aging to create a series of high-quality videos called The Falling Monologues. The videos, which can still be viewed separately or all

together on YouTube, feature older adults reflecting on their thoughts, emotions, and lessons learned after they've fallen.

The Falling Monologues has attracted more than 400,000 views.

Additionally, education program opportunities, such as conference symposia and the 2007 California Fall Prevention Summit: Progress, Challenges and Next Steps, were used to promote fall risk reduction educational materials housed on both the homemods.org and stopfalls.org websites. Dissemination of fall risk reduction education materials was exponential, with conference participants sharing resources with colleagues and partnering organizations.

As Julie Overton, MSG, MHA, former program manager of the National Resource Center on Supportive Housing and Home Modification, observes: "Having the mechanism to get [information] into the hands of those in the trenches was important."

Local and state coalitions supported by Archstone Foundation also played a big role in disseminating the educational programs and fall risk reduction materials created by the FPCE. In fact, local coalitions disseminated information to 50,000 older adults and caregivers across California. And statewide coalitions created a multiplier effect. Through coalition-sponsored

educational programs and activities, such as health fairs, fall risk reduction materials reached a far wider audience than the FPCE could have achieved on its own.

# ADVOCATING FOR POLICY CHANGES IN CALIFORNIA

Before Archstone Foundation funded the *California Blueprint* invitational conference in 2003, California had taken important initial steps to address fall prevention. California's Senior Wellness Act of 2001 established two major programs for fall prevention. The first was a department within the state's Stay Well Program to provide education and resources to older adults, their families and caregivers, along with training for professionals involved in the care of older adults. The other was the Program for Injury Prevention in the Home Environment, under the Senior Housing and Information Support Center, which provided funding for injury prevention information, educational programming, and services.<sup>4</sup>

### Julie Overton, MSG, MHA

Former Program Manager, National Resource Center on Supportive Housing and Home Modification

\*\*Archstone Foundation was involved in all things, their representation was always there, and their support went way beyond the financial. \*\*

California also established the Falls Surveillance Project with the passage of an amendment to the Health and Safety Code in 2003. This project was a collaboration with California's Emergency Medical Services Authority to establish a statewide database to track and understand falls. The data collected would later be used to promote adoption of appropriate fall prevention programs for each county.<sup>5</sup>

Building on the work of the "Early Years" home modification grants and the 2003 *California Blueprint*, the FPCE focused its initial policy efforts on home modification to supplement the state programs. The Archstone Foundation-supported National Resource Center on Supportive Housing and Home Modification developed a series of policy recommendations in 2002. These included:

- Increasing consumer awareness and acceptance of home modification.
- Improving home modification service delivery, addressing housing building regulations to accommodate older adults.
- Promoting increased coalition building.
- Increasing financing through Community Development Block Grants and Medi-Cal reform.<sup>6</sup>

Policy change recommendations developed at the 2003

California Blueprint invitational conference were advanced through the Proceedings Report and during the 2007 California

Fall Prevention Summit: Progress, Challenges and Next Steps, which identified 22 policy recommendations, along with strategies and practical action steps for implementation.

The policy actions recommended from the 2007 California Fall Prevention Summit were largely achieved, and Archstone Foundation's advocacy efforts—sponsoring meetings to educate legislators and other policymakers about fall prevention, working with state-level departments, and assisting advocacy efforts by the FPCE and local coalitions—were crucial in that success.

Specifically, the Foundation's advocacy work helped gain the support of the California Commission on Aging to recognize fall prevention as a public health priority, and the introduction and approval of Senate Concurrent Resolution No. 77, to establish Fall Prevention Awareness Week in September each year—one of the four cross-cutting recommendations that emerged from the 2007 summit.

The legislation for California's Fall Prevention Awareness Week was passed in 2008, and the event has been held every year since. In addition to raising fall prevention awareness, stakeholders describe this annual event as an opportunity for the coalitions to showcase their grassroots efforts.

The FPCE again played a central role in advocacy efforts. It created a fall prevention advocacy toolkit to influence policymakers, helped establish a statewide network to address the needs of a geographically and culturally diverse population, and

California has recognized Fall Prevention Awareness Week every year since the legislation was passed in 2008.

worked with the Department of Public Health's Safe California Plan to support local efforts.

Additionally, Foundation staff and FPCE leaders worked with organizations that provide services to California's older adults to promote the inclusion of fall prevention efforts in federal Administration on Aging (AOA) grant applications. For example, if Meals on Wheels was going into a home, they could provide basic education on fall prevention and home modification.

California has 33 Area Agencies on Aging (AAA), some of which adopted the practice of including fall prevention in federal grant applications and still follow it today. AAAs, depending on their resources, took different approaches to incorporating fall prevention.

Other policy efforts included the introduction of falls screening by case managers in adult day health centers. And in 2010, Archstone Foundation funded the UCLA Center for Health Policy Research to write fall risk and incidence questions for the 2011 California Health Interview Survey (CHIS). This was the first data collected about falls of older adults living in the community that had not been generated by health care utilization cost data. The data collected in the 2011 CHIS about fall risk and incidence was queried more than 4,000 times in 2011-12, says Steven P. Wallace, PhD, Associate Director of the UCLA Center for Health Policy Research, and Professor at the UCLA Fielding School of Public Health.

The Foundation funded dissemination of a 2010 policy brief written by Wallace and colleagues on risk of avoidable falls among older Californians. It also funded data collection, analyses, and publication of a 2014 policy brief written by Wallace that found more than a half million older Californians

had fallen more than once in the previous year. The 2014 policy brief showed that more than 40 percent of older adults who fell repeatedly sought medical care as a result. It also found that only three in five of those who sought care received any information from their providers about reducing their fall risk. The 2014 policy brief was downloaded 385 times from the UCLA Center for Health Policy Research website, and 1,000 print copies were distributed to advocates and policymakers. The brief reinforced recommendations that health care providers should screen all older persons for fall risk, especially those who had a recent fall, and use evidence-based assessment tools and care guidelines in their practices. These recommendations were supported by training offered by the FPCE.



## DEVELOPING A NATIONAL ACTION PLAN

Similar to the work in California, important early efforts by the National Alliance to Prevent Falls as We Age laid the groundwork for the development of the Archstone Foundation-supported *Falls Free® Initiative (Falls Free®)* at NCOA. Among the Alliance's goals was to develop a National Action Plan to make fall prevention a major health policy item.<sup>7</sup>

Archstone Foundation began funding NCOA's Falls Free®

Initiative in 2003 to identify best practices for fall prevention and create a nationwide action plan for fall prevention advocacy. The National Action Plan became reality as a result of the two-day Falls Free: Promoting a National Falls Prevention Action Plan summit held in December 2004.

Dr. Nancy Whitelaw, former director of NCOA's Center for Healthy Aging, says that as important as Archstone Foundation's funding was to advancing fall prevention, the knowledge, ideas, and connections Mary Ellen Kullman and the staff brought to the work was even more instrumental in some ways. "Sometimes philanthropies underestimate that," Dr. Whitelaw says. "It's good to have engaged, smart staff that don't micro-manage you—it's such a difference compared to some other philanthropies. With Archstone Foundation, the money was part of it, but the connection to their staff and some of the linkages they helped to create ... [were] so valuable."

In a major victory, the NCOA-led Falls Free® Advocacy
Workgroup led efforts to finally enact federal fall prevention



Archstone Foundation's strategies to influence fall prevention policies and regulations resulted in meaningful changes largely because they were firmly grounded in scientific knowledge and data.

legislation. Proposed legislation had failed in 2002 and 2003, but NCOA's *Falls Free®* picked up the torch and won passage of the Safety of Seniors Act of 2007. The law supported a national fall prevention educational campaign, including fall prevention education for medical professionals, and an additional \$1 million in funding to support fall prevention research.8

In 2008, NCOA convened a National Advisory Group to *Falls Free*® in Washington, DC, to identify emerging opportunities to build on the *Falls Free*® growing national momentum and help maximize its impact. Members included representation from CDC's National Center for Injury Prevention and Control (NCIPC), AoA, the Centers for Medicare and Medicaid Services, the Agency for Healthcare Research and Quality (AHRQ), The John A. Hartford Foundation, Archstone Foundation, and others.

As a result, CDC's NCIPC advanced its data efforts and named older adult fall prevention as one of three priority areas, encouraging state public health offices to address the issue. This policy fostered the development of fall prevention coalitions in states with CDC Core Violence and Injury Prevention Program grants and supported the identification of fall prevention as a priority.

Beginning in 2008, Falls Free® began sponsoring National Falls Prevention Awareness Day, held on the first day of fall each year. The concept built on the success of California's Fall Prevention Awareness Week and provides a valuable annual opportunity to promote public education about fall prevention and fall risk reduction across the country.

These public education campaigns required solid data about fall risk and incidence. As a result of the National Advisory Group to Falls Free® recommendations, NCIPC began to increase their activity in data analysis, including convincing CDC to add fall prevention questions to the National Behavioral Risk Factor Surveillance System survey. NCIPC also was able to include specified falls outcomes in the Healthy People 2010 and 2020 objectives.

Archstone Foundation's strategies to influence fall prevention policies and regulations were led by the FPCE, working with local and state coalitions, at the state level, and the NCOA Falls Free® collaborative at the national level. Those strategies resulted in meaningful policy changes largely because they were firmly grounded in scientific knowledge and data to make the case that fall risk could be reduced, and that high costs—both financial and personal—for falls could be curtailed by reducing preventable falls.





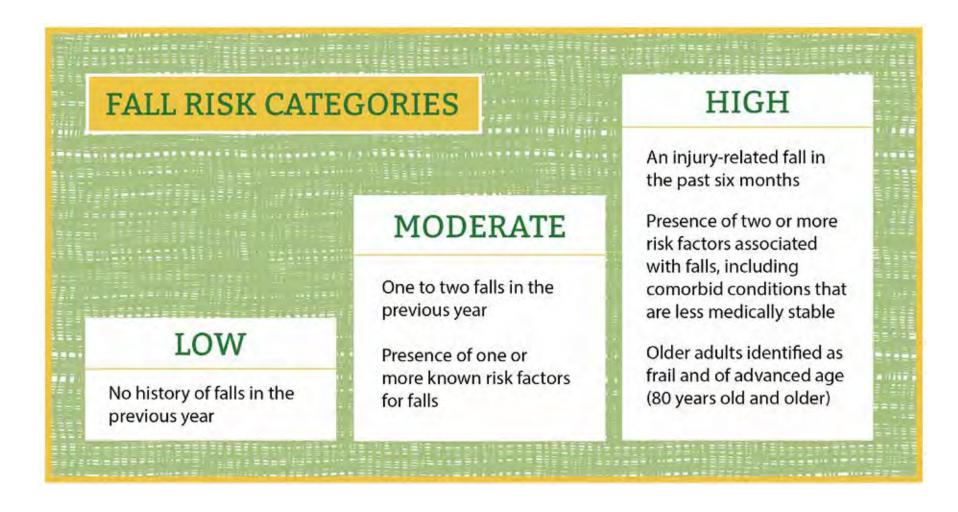
# Creating the Evidence Base for Fall Prevention

Translating research into evidence-based programs was a key Archstone Foundation strategy for the *Fall Prevention Initiative* that contributed significantly to building the science and the field. Through evaluation, research, and data development, the Foundation-supported Fall Prevention Center of Excellence (FPCE) helped extend the translation of research into community fall prevention programs.

Judy Stevens, PhD, previously an Epidemiologist, Division of Unintentional Injury Prevention, Centers for Disease Control and Prevention (CDC), credits Archstone Foundation with helping to build the science base for fall prevention—but not so much regarding the problem itself, as for what can be done to effectively address the problem.

The Foundation funded multifactorial programs and projects that reached older adults with varying levels of fall risk. This approach contributed to the evidence of fall-risk reduction for people across the spectrum, from low to moderate to high risk of falls. The low-risk category includes people with an absence of risk factors and no history of falls in the previous year. The moderate-risk category includes people with a history of one to two falls in the previous year and the presence of one or more

known risk factors for falls, including comorbid conditions, like Parkinson's disease. The high-risk category includes people with an injury-related fall within the past six months and the presence of two or more risk factors associated with falls, including comorbid conditions that are less medically stable. Older adults identified as frail and of advanced age (80 years old and older), are also considered to be in the high-risk category.



The projects and programs supported by Archstone Foundation helped to determine what types of programs and components of programs were most appropriate for older adults with different levels of risk. Recognition of risk level, and tailoring programs to maximize effectiveness, are both important components in designing and implementing evidence-based fall prevention programs.

### **CULTIVATING THE SCIENCE**

The Foundation's work in building the evidence base included model program grants during the initial "Early Years" funding, two sets of subsequent model program grants, a major demonstration project, and a national award that had an important and lasting impact.

Foundation support for building the science started with the "Early Years" grants that supported six model fall prevention programs. (For more information, see "The Grants that Launched a Movement," on page 6.) Of particular note was the Balance and Mobility Community Outreach Pilot and a subsequent grant to create a balance and mobility instructor specialist and peer mentor-training program. The data collected during the pilot proved instrumental in the growth of the program, now known as the national award-winning FallProof™ Balance and Mobility Program.

After the FPCE was launched, the Foundation awarded two sets of grants, known as the California Senior Fall Prevention projects, in 2006-07. These grants went to organizations and/or community partnerships to integrate multifactorial fall prevention components—such as balance and mobility (physical activity), medical management (risk assessment and follow-up), and/or environmental assessment and modifications—into existing fall prevention programs and/or services. The FPCE provided technical assistance and evaluation support to the model program expansion projects.

It wasn't always direct funding that helped advance the science. An evaluation and award bestowed by Archstone Foundation and the American Public Health Association in 1998 helped to establish the credibility of what is today the most widely disseminated fall prevention program in the U.S., A Matter of Balance.



### A MATTER OF BALANCE

In 1998, researchers at Boston University received the very first Archstone Foundation Award for Excellence in Program Innovation at the American Public Health Association annual meeting for the A Matter of Balance (MOB) program. Elizabeth Peterson, PhD, OT, formerly a member of the Boston University research team, says fear of falling had no visibility at the time. By shining an early light on MOB, Dr. Peterson says, the Archstone Foundation Award for Excellence in Program Innovation set the stage for the program's growth and success. Dr. Peterson, now on faculty at the University of Illinois, Chicago and Lead of the Illinois Fall Prevention Coalition, says the recognition brought the program credibility, helped its dissemination, and advanced the professional reputations of researchers.

Work done by Tara Healy, MSW, PhD, and colleagues at University of Southern Maine,<sup>9</sup> also aided dissemination. They found the program could be translated effectively from its research assistant, medical professional-led model to a "lay leader model," emphasizing the importance of having older adults as leaders in the fall prevention movement.

Today, MOB has reached 60,000 people in 35 states, making it the most widely disseminated fall prevention program in the U.S., Dr. Peterson says, citing a recent Centers for Medicare and Medicaid Services report.

## BALANCE AND MOBILITY COMMUNITY OUTREACH PROGRAM

Archstone Foundation's "Early Years" funding of the Balance and Mobility Community Outreach Program (see page 7), developed at California State University, Fullerton, helped establish its effectiveness, setting the stage for its spread nationwide as the FallProof™ Balance and Mobility Program. Evaluation results showed that fall risk among participants was reduced by approximately 32 to 40% due to significant improvements in balance impairments, functional performance, and balance-related self-confidence.¹¹⁰ Similar fall risk reductions (22 to 30%) were found in a sub-sample of older adults with a primary diagnosis of rheumatoid arthritis or

## Debra Rose, PhD Co-Director, FPCE

Archstone Foundation was a catalyst—they addressed the issue and others came to the party. They were really leading the way and went beyond regional boundaries when they saw they could support national efforts.

osteoarthritis,<sup>11</sup> demonstrating that group balance and mobility training programs constitute an effective means of reducing fall risk and improving strength and flexibility in older adult women with arthritis.

Dr. Debra Rose, who led the Balance and Mobility Community Outreach Program during the "Early Years" funding, became co-director of the FPCE when the center launched. There, with additional funding from Robert Wood Johnson Foundation, Dr. Rose launched a controlled trial renamed FallProof™ Balance and Mobility Program™. 12,13 In addition to the gait and balance measures used previously, psychological measures including balance-related self-confidence, depression and perceived quality of life and levels of compliance—were also assessed as a function of program participation. Study findings demonstrated that significant improvements in these psychological variables were found for the intervention group only. Further analyses that stratified the study group into high to low compliance to the program found that participants in the high-compliance group demonstrated higher reduction in fall risk, with a 35-40% risk reduction, compared to the lowcompliance and control groups.

Today, the FallProof™ Balance and Mobility Program is offered in senior centers nationwide. The program has also been adapted for delivery to older adults in continuing care retirement communities, serving a higher-risk group than older adults living independently in the community.

"Archstone Foundation was a catalyst—they addressed the issue and others came to the party," Dr. Rose says. "They were really leading the way and went beyond regional boundaries when they saw they could support national efforts."

## THE CALIFORNIA SENIOR FALL PREVENTION PROJECTS

The six model program expansion grants funded by Archstone Foundation under its California Senior Fall Prevention project from 2006-09 provided fall prevention services to 450 older adults and educated 7,100 older adults and their caregivers on fall prevention.

The six initial grants awarded in 2006 were to integrate at least two of three components into existing services: 1) balance and mobility training; 2) medical management through risk assessment and follow-up; and/or 3) environmental assessment and modification. Phase One funding was for one year, and Phase Two included an additional three years of funding for three of the Phase One grantees to refine existing program expansion projects.

For example, one of the Archstone Foundation model projects, Adult Day Health Care: Partners in Preventing Falls, was a joint effort between the Alzheimer's Family Services Center, Acacia Adult Day Services, and Community SeniorServ. This collaborative project brought fall prevention programs to the "frailest of the frail" adult day health center participants and their families. Comparison of data collected from participants before and after the Partners in Preventing Falls program revealed a greater-than-expected improvement in balance scores for Alzheimer's disease patients following the training. For the Partners in Preventing Falls, Phase Two, participants who had an in-home assessment experienced a lower fall rate (25%) than those with no intervention (44%).



In another example, ONEgeneration, an intergenerational program that provides adult day care and child care in a shared setting in the San Fernando Valley, received grants during Phase One and Two to develop and provide a complete Fall Prevention Program that addressed medication management, balance and mobility training, and environmental assessment and home modifications. The program was unique in that it provided fall prevention activities for all risk levels by engaging low-risk older adults attending ONEgeneration programs and higher-risk participants receiving care management and home health services. Based on the fall risk assessments of only 15 clients after one year in the program, 93% of participants remained at the same functional status, or showed an increase in basic activities of daily living (ADL) independence; and 67% remained the same or showed an improvement in instrumental activities of daily living (IADL) independence. Maintaining ADL and IADL levels is often considered "a win" among frail older adults who tend to lose function over time. Sixty-two percent showed a decrease in fall risk, with 13% showing no change in risk. The data, while promising, was based on a very small sample of clients.

During Phase Two, 80 clients received a second assessment, and 22 received a third assessment. Changes in scores over time showed that 72% of program participants maintained or improved their ADL function, while 60% of participants maintained or improved their IADL function. After one year in the program, participants continued to be at high risk for falls, but did not show a significant increase in risk. These findings are notable in a frail, homebound population that would be expected to show decline and increased fall risk over time.

# FPCE InSTEP DEMONSTRATION PROJECT

With Archstone Foundation funding, the FPCE took the lead to develop, implement, and evaluate a major demonstration project called Increasing Stability Through Evaluation and Practice (In-STEP) in 2006. The goal was to create an evidence-based fall prevention program that could be widely disseminated. The study had three levels of intensity in order to determine the relative impact on fall risk factors and rates of falling. Each model was tested in three cohorts of at-risk older adults at six senior and community centers in Southern California. Outcome measures included self-report, questionnaires, physical performance tests, and a home safety assessment. These measures were collected at baseline, at the end of the 12-week intervention period, and at the 3-month, 6-month and 9-month post-intervention periods. Follow-up on recommendations for home modification was only conducted at the post-intervention time period.

InSTEP participants reported proportionately fewer falls during the 12-month study period in comparison to the year prior to the study (35% compared to 52%). There was also a significant reduction in self-report of two or more falls per year. Taken together, the findings suggest that InSTEP was an effective approach, but some measurable outcomes in strength and balance may require a sustained physical activity component. The overall experience with InSTEP was positive for clients and the community centers where it was tested.

The InStep program was successfully delivered to monolingual Korean and Spanish older adults at a seventh community program site following its successful implementation with English-speaking older adults. Outcome and process evaluations were conducted after the three program rotations for each ethnic group. The combined results of the Medical Risk Assessment and baseline balance testing indicated that 32% (n = 21) were at high risk for falls, with significant differences across ethnic groups. At follow-up, most participants screened (93%) had discussed their assessment results with their doctor as requested. The Home Assessment and Modification component was less successful, with only 58% consenting to a home assessment and 44% of those who received a home assessment. making recommended modifications. After 12 weeks in the group exercise program, significant improvements in balance, lower body strength, and functional mobility were observed for the total sample.

Unfortunately, InSTEP has not been adopted by study sites or disseminated as widely as hoped. Researchers overseeing the InSTEP program found that the complexity of the approach led to a need for significant mentoring and oversight, which proved difficult to sustain in study sites and a challenge for program replication. Community centers typically did not have sufficient budgets to allow them to hire qualified exercise instruc-

tors and acquire needed exercise equipment for the classes, or the additional administrative resources to offer home visits and medical risk screening.

## EVIDENCE-BASED RESEARCH THAT IMPROVED LIVES

Archstone Foundation-supported projects served a crucial translational role in taking fall-risk reduction research principles and putting them into the hands of health professionals and community-based programs so older adults could benefit. These projects and programs reduced fall risk and enabled older adults to live more independently. While it may not be quantifiable, it is clear that the Foundation had a wide-ranging impact in shaping the field—and the science base—of fall prevention.

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# Making a Lasting Impression

It is rare that effective programs and projects seeded by external funding, such as those sponsored by Archstone Foundation, find a way to continue once a grant ends. However, a number of the California and national fall prevention programs did just that.

The 12 Key Strategies for Success employed by Archstone Foundation addressed the "long view" through partnership building, systems integration, and setting in motion processes to support sustainable efforts. Workforce development, education and training, technical assistance and evaluation, capacity building, convening stakeholders, collaboration, advocacy for policy change, supporting the science and dissemination – together all these strategies became a powerful vehicle to promote sustainability of Archstone Foundation-supported fall prevention efforts.

The Fall Prevention Center of Excellence (FPCE) and related work of the local, state, and national coalitions are the primary drivers that continue to advance fall prevention efforts supported by Archstone Foundation. Using the dual approach for infrastructure development by providing a central resource hub in the FPCE, along with engaging local leadership in coalitions, was extremely effective for the development of a sustainable network of fall prevention programs statewide. Parlaying the lessons and successes of the California efforts to the national scene with the National Council on Aging (NCOA) as a partner was also very strategic.

Dr. Nancy Whitelaw, former director of NCOA's Center for Healthy Aging, describes Archstone Foundation's approach to leveraging resources to advance fall prevention: "They were very helpful in lining up the pieces [to] get older adults to have fewer falls, which is everybody's goal. They were helpful ... in thinking about how their funding could be used in a way that wasn't redundant but would leverage what other people were doing. They didn't say, 'We're the first-place funder, everybody else has to fall in place based upon what we want to fund.' The other funders (Administration for Community Living, Home Safety Council, etc.) were doing their own independent stuff and NCOA was trying to weave that together and use Archstone Foundation funding to get a bigger impact. It's really special when a place will do that."

#### STILL MAKING A DIFFERENCE

As Archstone Foundation prepared to conclude its *Fall Prevention Initiative* and move on to its new portfolio of priorities, the Foundation tasked the FPCE—in conjunction with the local, state, and national coalitions—to create sustainability plans. With guidance from the Foundation, the FPCE sustainability plan included a market analysis, development of sustainability goals, and action steps to: 1) strengthen and diversify partnerships; 2) increase public awareness of fall prevention and the FPCE; and 3) develop, market, and disseminate FPCE products, programs and services.

As a result, there are many ways Archstone Foundation's fall prevention work continues today at both the state and national level. A few of those highlights are in this report:

- The FPCE's website, stopfalls.org, continues to provide
  a comprehensive set of resources to older adults, their
  families, caregivers, medical professionals, and researchers
  interested in fall prevention. In addition, the FPCE
  continues to serve as an information hub for regional
  California fall prevention coalitions and the statewide
  StopFalls California coalition it initially launched.<sup>15</sup>
- StopFalls California, formerly known as StopFalls Network California, continues to provide an overarching umbrella for the work of coalitions while advocating for fall prevention. It currently consists of 93 members, including 15 community fall prevention coalitions, as well as health, aging, and senior injury prevention providers. Seven of the 15 coalitions participating are from the original 10 coalitions funded by Archstone Foundation.
- Through the Archstone Foundation Fall Prevention Initiative,
   FPCE staff directly trained an estimated 12,000 health care
   and social service providers and students in fall prevention.
   Training focused on health care professionals who play a key
   role in fall prevention, such as physical activity professionals,
   occupational therapists (OTs), physical therapists (PTs), and
   physicians. This trained workforce continues to help older
   adults reduce their fall risk.
- The FPCE has leveraged and expanded its activities through the successful acquisition of additional funding from a variety of funders, including The California Wellness

- Foundation, Kaiser Foundation Health Plan and Hospitals Southern California Region, The Eisner Foundation, The SCAN Foundation, Hartford Insurance, the Administration for Community Living (ACL), and CDC. In the last year of Archstone Foundation funding, the FPCE received Housing and Urban Development (HUD) project support with NCOA to incorporate home safety/aging in place education into reverse mortgage counseling.
- The NCOA and the Falls Free® Initiative continues to lead fall prevention advocacy. In 2015, it held a second Fall Prevention Summit to create an updated national action plan. The success of the Falls Free® Initiative has led to the establishment of a nationwide falls prevention coalition, consisting of statewide fall prevention coalitions, public and private stakeholders, and the federal government.
- The number of state-level fall prevention coalitions has actually grown to 34 from the 21 active groups that existed when Archstone Foundation funding of NCOA ended. In a survey of leaders of state fall prevention coalitions, states shared similar priorities, including to increase partnerships among fall prevention coalition members, broadly disseminate evidence-based fall prevention research, and advance NCOA policy goals. However, many states expressed challenges in securing funding and support to implement these programs.<sup>17,18</sup>
- California's Fall Prevention Awareness Week has been held in September every year since legislation creating the annual event was passed in 2008.



- Forty-three states and the District of Columbia recognized national Fall Prevention Awareness Day in 2018, collectively reaching nearly 154.7 million individuals through national, state and local press releases, Twitter, Facebook, and more. As the primary national sponsor of this event, NCOA developed a rapidly growing web resource (ncoa.org/fpad) to promote the sharing of resources across states.
- NCOA was very effective in bringing in additional external funding to continue its fall prevention work. NCOA reports that Archstone Foundation's funding has resulted in a return on investment of \$1,352,700.
- The University of Southern California (USC) Center on Supportive Housing and Home Modification's Executive Certificate in Home Modification Program has continued since its inception, with support and staffing from the USC Leonard Davis School of Gerontology. USC's website, homemods.org, continues to provide both online courses and resources to assist older adults, caregivers, providers, and researchers to learn more about home modification.<sup>19</sup> It has now trained more than 1,000 people including home builders, fall prevention health professionals, such as occupational therapists, and aging services providers. It is self-sustaining, with enrollment fees for the program covering the program costs. External funding has also provided spin-off programs based on the certificate curricula for home repair workers affiliated with Hartford Insurance.

- The Balance and Mobility Community Outreach Program, now called FallProof™ Balance and Mobility Program, continues to be offered in community-based centers across the nation. Ten of the original 18 programs are continuing in senior centers in Orange County and being taught by a Balance and Mobility/Fallproof-trained instructor.
- The Balance and Mobility/Fallproof Specialist Instructor Training Program has also continued, with two satellite program offices, one in Canada and one in South Carolina, in addition to its home base at CSU Fullerton. By 2017, about 700 instructors had completed the certificate program. Instructors are required to renew their certificates every two years, by providing evidence of teaching the program, continuing education credits, and online case study completion. According to Dr. Rose, the current number of instructors who still retain the certificate is about 300.



### CREATING A TAPESTRY FOR SUCCESSFUL GRANTMAKING

Since 1996, when Archstone Foundation first funded fall prevention in California, they believed it was possible to build sustainable efforts around fall prevention. They developed a plan with 12 Key Strategies for Success to fully maximize foundation funding to reduce fall risk. They brought people together and supported building a state infrastructure. The infrastructure grew into an influential statewide network that continues to reach older adults with fall prevention messages where they live. And through a strategic partnership with NCOA, the Foundation helped spread what it had learned nationally.

When the Foundation funded a five-year Fall Prevention Initiative in 2005, initial thoughts were that once these projects were complete, Archstone Foundation would move on to new issue areas. In the end, the Foundation funded fall prevention for a total of 10 years. Since then, they have funded a small number of legacy projects. In all, the Foundation invested \$12.69 million through 63 grants to build the field and set it on a course to sustainability.

The Foundation has continued to leverage what was accomplished with falls within their three current issue areas: Aging in Community, Family Caregiving, and Late-life Depression. Mary Ellen Kullman, Vice President, Archstone Foundation, points out that some of the issue areas are well-aligned with their previous work in fall prevention. Aging in community, for example, includes concerns about universal design and home safety—issues that tie in with falls.

The 12 Key Strategies for Success that guided the Foundation's Fall Prevention Initiative were far-reaching, comprehensive, and focused on a variety of processes necessary to accomplish its goals. At the heart of the strategies was making connections - coalitions, collaborative projects, convenings of stakeholders, and building partnerships. Surrounding these central connecting efforts were task-oriented activities like capacity building, workforce development, systems integration, education and training, provision of technical assistance and evaluation, building the science, dissemination, and advocacy for policy change.

By orchestrating the accomplishment of these strategies in its fall prevention work, Archstone Foundation surpassed its goals and touched the lives of many. This is the lasting legacy of its Fall Prevention Initiative. And as the Foundation continues to be guided by those same strategies in its current and future work, that legacy will continue to grow and spread into other important work that prepares society to meet the needs of an aging population.

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