

# Conference Proceedings

## Creating a California Blueprint for Fall Prevention: Proceedings of a Statewide Conference

**Invitational Conference  
Sacramento, California  
February 5-6, 2003**

Sponsored by:

Archstone Foundation

The California Wellness Foundation

VA Greater Los Angeles Healthcare System

Geriatric Research Education Clinical Center (GRECC)

California Geriatric Education Center



# **Creating a California Blueprint for Fall Prevention**

Proceedings of a Statewide Conference

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“Creating a California Blueprint for Fall Prevention: Proceedings of a Statewide Conference”,  
Archstone Foundation, Long Beach, CA, October 2004.



# Fall Prevention Conference Proceedings

## TABLE OF CONTENTS

<b>Executive Summary</b> .....	1
<b>Conference Background</b> .....	2
<b>STATE OF THE ART IN FALL PREVENTION IN THE ELDERLY</b>	
Welcome and Charge to Participants; <i>Mary Ellen Kullman Courtright, MPH and B. Josea Kramer, PhD</i>	
<b>Part I: Scope of the Problem</b> .....	5
Fall Prevention: A Nationwide Priority; <i>Sarah J. Olson, MS, CHES</i>	
State of the Art in Fall Prevention; <i>Laurence Z. Rubenstein, MD, MPH</i>	
Tailoring Fall Prevention to Individual Levels of Risk; <i>B. Josea Kramer, PhD</i>	
<b>Part II: Interventions in California</b> .....	10
The California Infrastructure for Fall Prevention; <i>Debra Rose, PhD</i>	
The Role of Home Modification in Fall Prevention; <i>Jon Pynoos, PhD and Dory Sabata, OTD</i>	
<b>Part III: Other System-Wide Interventions</b> .....	14
Tampa Veterans' Hospital Fall Prevention Network: A Hospital-Based Program; <i>Stephanie Hart-Hughes, BSc, PT</i>	
Prevent Falls: The Connecticut Collaboration for Fall Prevention; <i>Dorothy I. Baker, PhD, RNCS</i>	
Canadian Programs to Prevent Falls and Injuries Among Seniors; <i>Elaine Gallagher, RN, MScN, PhD</i>	
<b>EFFECTING CHANGE IN CALIFORNIA</b>	
<b>At the Political Level</b> .....	17
A Vision for California; <i>Debra Ortiz, JD</i>	
Developing Policy to Address Fall Prevention; <i>Lynn Daucher, BS</i>	
<b>Needs of California Communities</b> .....	19
Fall Prevention Issues in California; <i>Barbara Alberson, MPH</i>	
Comments from the California Department of Aging; <i>Lynda Terry, MPA</i>	
Comments from the California Department of Health Services; <i>Carol Freels</i>	
<b>Partnerships</b> .....	21
Responding to the Needs of Older Californians; <i>Fernando Torres-Gil, PhD</i>	
<b>INTERACTIVE WORKGROUP FINDINGS</b>	
<b>Concluding Remarks</b> .....	32
Putting the Blueprint into Action-Reactions from Conference Participants: Closing Panel	
Closing Remarks: <i>B. Josea Kramer, PhD and Mary Ellen Kullman Courtright, MPH</i>	
<b>Appendices</b>	
Appendix A: Conference Planning Committee .....	34
Appendix B: Consensus Statement of the Planning Committee .....	36
Appendix C: References .....	37
Appendix D: Internet Resources .....	37



# FALL PREVENTION CONFERENCE PROCEEDINGS

## Executive Summary

On February 5-6, 2003, an invited group of over 140 leaders of key stakeholder groups from throughout the State of California assembled in Sacramento to begin a strategic planning process for prevention of falls among older adults. Participants represented a diverse group including: aging services and programs; public health; local, regional, and statewide legislators, policymakers and civic leaders; advocacy groups, consumer organizations, and voluntary organizations; academic faculty in geriatric medicine and gerontology; and the healthcare industry. Prior to the conference advance reading material summarizing current knowledge was distributed to attendees in the form of a White Paper *Preventing Falls in Older Californians: State of the Art*.

Following plenary presentations by national and state leaders, participants worked in small groups to explore issues aimed at developing a California Blueprint for Fall Prevention. A number of common themes emerged during the conference presentations and workgroups, including:

- California already has an infrastructure in place with services and programs that can address prevention of falls among seniors and advocates can build upon that infrastructure;
- There is sufficient knowledge to prevent falls. Fall risks and appropriate prevention activities have been well-documented and quality indicators established;
- Training of professionals in community-based practice is needed. In addition, professional training curricula for physicians and associated health professionals should be expanded to include fall prevention;
- Multi-agency strategies are needed to encourage the integration of agencies and disciplines beyond traditional workgroup boundaries;
- While some resources for fall prevention exist, funding is often unstable, fragmented and/or difficult to access;
- The general public lacks awareness that many injurious falls can be prevented;
- Prevention efforts should address the racial and cultural diversity of the California population, as well as urban-rural differences;
- A central clearinghouse or coordinating body is needed to share information, facilitate networking, and encourage training; and
- A statewide coalition of experts and advocates can further the action steps needed.

Many falls and injuries related to falls can be prevented with existing knowledge and technology. However, effective fall prevention will require the collaborative efforts of many organizations as well as changes in the behavior of older adults and providers, and systematic changes in organizations. Many effective interventions currently exist but improved access, additional resources, and coordination and commitment across systems are areas where there is need and opportunity.

## Conference Background

Over 1.3 million older Californians suffer injury from a fall each year, with many sustaining hip fractures, head injury or death. The human costs are incalculable and the costs to the healthcare system are enormous. Yet falls can be prevented.

In April 2002, recognizing the need to address fall prevention issues in a statewide forum, the Archstone Foundation invited key stakeholders to strategize on the implementation of a statewide fall prevention blueprint. A planning committee (Appendix A) chaired by B. Josea Kramer, PhD, of the Geriatric Research Education Clinical Center at the VA Greater Los Angeles Health Care System, and staffed by Mary Ellen Kullman Courtright, MPH, of the Archstone Foundation, developed guiding principles (Appendix B) and set objectives and outcomes for a statewide leadership conference. The committee recognized that fall prevention should occur in the home, community and healthcare settings and involve the collaborative efforts of many organizations. Fall prevention will require changes in the behavior of older adults as well as changing provider behavior, and systematic changes in organizations. Appropriate risk assessment should occur at all levels of care and appropriate interventions should be tailored to individual needs. The overall costs of falls should be documented and research in fall prevention should be supported. Prevention efforts should address the race/ethnic and cultural diversity of California populations and rural-urban communities. Many effective interventions currently exist but improved access, additional resources, and coordination and commitment across systems are needed to realize savings from fall prevention activity.

In preparation for the conference, three groups of authors prepared reports on state of the art knowledge in fall prevention. Those reports form a White Paper that was distributed to attendees prior to the conference. The White Paper was divided into three main sections. The first section reports on the significance of injurious falls to older persons and intervention practices to reduce the risk of falls. The second section describes the infrastructure that exists in the State and reports on how selected California community-based programs are currently working to prevent falls. The third and final section discusses environmental modification to prevent falls in the home and community. The White Paper *Preventing Falls in Older Californians: State of the Art* has been prepared as a companion document to these Conference Proceedings and both are available online at [www.archstone.org](http://www.archstone.org).

This Conference Proceedings document was written based upon the presentations by speakers, and the creative input by all the participants in the workgroups. Primary editing was completed by Peggy Smith, PhD, B. Josea Kramer, PhD and Mary Ellen Kullman Courtright, MPH. Many of the faculty also gave input into this effort to share the results on the conference. We apologize for any errors or omissions in advance as it is difficult to fully capture such a rich and expansive dialog about an issue that all of the participants are so committed to impacting.

It is our hope that this document and the White Paper companion document will provide building blocks for a long-term collaborative effort to reduce the risk of falls for California's diverse elders. We hope that it will stimulate further dialog and the creation and implementation of a California Blueprint for Fall Prevention.

## **The Case for Action on Fall Prevention in California**

### Older Californians sustain serious and costly falls each year

- California has the largest elderly population of any state in the USA, with over 3.8 million Californians age 65 and older. (2002)
- The risk of fall injury increases dramatically with age. The rate among Californians over age 85 is 57 times higher than Californians aged 20-55 years. Citizens over age 85 are the fastest growing segment of the California population.
- Approximately one-third of older Californians fall each year, with many of the 1.3 million suffering serious injury, particularly hip fractures and head injuries.
- It is estimated that 213,000 visit the emergency room and more than 60,000 are hospitalized.
- The estimated total cost of fall injuries per year in California is more than \$3.5 billion.
- More than 40% of those hospitalized for hip fractures never return home or live independently again and 25% will die within one year.
- The average estimated medical cost of a senior fall-related hospitalization in California is \$30,000.
- There are ten hospitalizations caused by falls for every hospitalization of a senior Californian caused by a traffic accident.
- On average, every day in California, two older adults die from fall-related injuries.

### The majority of falls can be prevented through proven methods

- Appropriate risk assessment and follow up by healthcare practitioners
- Exercise, strength training and flexibility aimed at reducing falls
- Environmental modifications, such as removing clutter and installing grab bars

### Many interventions are already in place in California

- Strength training programs can be found at most of the 1002 Senior Centers.
- Multipurpose Senior Services Programs serve 11,700 frail older clients/month.
- California Departments of Aging and Health have promoted fall prevention and health exercise initiatives.
- Guidelines for fall assessment by healthcare practitioners have been established.
- Medicare provides reimbursement for post-falls assessment.

### Need to close the gap

- Although exercise can reduce the risk of falling, most older persons are not regular exercisers, and 34% of persons over age 65 do not engage in any leisure physical activity, putting the majority of older Californians at increased risk for falls.
- Insufficient number of senior centers to meet the exercise needs of 4.7 million Californians over the age of 60 years.
- Physicians are not widely practicing fall prevention and assessment strategies, despite published clinical guidelines.
- Environmental assessment and modification programs are not widely available.
- Fiscal constraints limit resources and personnel for multi-faceted fall prevention.
- A statewide program to plan and coordinate fall prevention activities is lacking.



# **State of the Art in Fall Prevention in the Elderly**

## **WELCOME AND CHARGE TO PARTICIPANTS**

Mary Ellen Kullman Courtright, MPH, Vice President, Archstone Foundation, and B. Josea Kramer, PhD, Associate Director for Education, Geriatric Research Education Clinical Center (GRECC), VA Greater Los Angeles Health Care System, Professor, UCLA School of Medicine.

Ms. Kullman Courtright and Dr. Kramer opened the conference with the charge that participants be creative, set aside traditional organizational boundaries and envision what could be done to reduce the risk of falls in the elderly if all stakeholders were to come together around a common agenda. They outlined the plan for two days of blending state of the art knowledge with structured brainstorming and networking opportunities to allow the development of actionable short-term and long-term plans to affect the health of California's elders.

## **Part I: Scope of the Problem**

### **FALL PREVENTION: A NATIONWIDE PRIORITY**

Sarah J. Olson, MS, CHES, Assistant to the Director for Partnership and Education, Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Ms. Olson provided conference participants with a national perspective on fall prevention, speaking from the viewpoint of the Centers for Disease Control and Prevention. She reported that fall prevention is a nationwide priority of her organization.

Falls by seniors have a major impact on quality of life, and carry a heavy economic burden. Falls are a major health problem in the United States and the leading cause of injury, institutionalization, and loss of independence among seniors. One out of every three older adults will fall annually, and those who do fall are more likely to fall again. Of the 10,000 people who die from falls each year, most fall deaths (73%) occur in the 13% of the population who are aged 65 and over. In the ten years between 1989 and 1999, fatal falls among seniors increased 57%. Many seniors are hospitalized each year for debilitating hip fractures due to falls. After a hip fracture many elders die within one year and many more are unable to live on their own.

In addition to the human costs of falls, the economic impact is staggering. The direct cost of fall injury in the U.S. was \$27.3 billion in 1994 (in current dollars). Medicare costs alone of hip fractures are projected to be \$240 billion by the year 2040.

The majority of falls can be potentially prevented. One of the challenges is to marshal the resources necessary to make proven interventions widely available. Ms. Olson challenged the participants to create a model in California that other states could follow in reducing the burden of falls among the elderly.

## **STATE OF THE ART IN FALL PREVENTION**

Laurence Z. Rubenstein, MD, MPH, Director, Geriatric Research Education and Clinical Center (GRECC), VA Greater Los Angeles Healthcare System, Professor of Medicine, UCLA.

Dr. Rubenstein presented the participants with a summary of the most current scientific research on the risks for fall, their prevention, and management, based on published evidence and recent expert consensus.

### *Risk Factor for Falls*

Most falls are associated with one or more identifiable risk factors, many of which are modifiable. Risk factors are complex and differ in prevalence between low-risk and high-risk populations. Medical programs tend to focus on higher-risk patients, those who have fallen, or those with identifiable disease or disability. The most important of these risk factors include: muscle weakness, gait and/or balance deficits, cognitive deficits, vision deficits, psychotropic medications, and functional impairment. While some of these factors are immutable, others are treatable with proven intervention strategies.

The majority of healthy seniors are at relatively low-risk other than changes due to the normal aging process such as age-related impairments of vision or balance. However, many independent seniors have one or more of the serious risk factors of which they should be aware. Many of these risk factors among community-dwelling elders are treatable, and numerous community-based programs address these risk factors among low-risk seniors.

Environmental risk factors also contribute to falls. Among community-dwelling elders, risk factors in the home include safety hazards (e.g., unstable furniture, unsafe stairs and railings, hazardous rugs/carpet, poor lighting, electric cords, and clutter on the floors), as well as a lack of supportive features (e.g., grab bars, handrails, places to sit and rest).

### *Interventions Strategies*

A large proportion of falls can be prevented through proven methods. California's communities will require a multi-component or tool-kit approach to fall prevention with a wide variety of interventions for low and high-risk seniors living in the State's diverse communities. These include preventive risk factor screening, exercise and rehabilitative programs, environmental inspection and modification, and post-fall assessment and interventions tailored to individual need and level of risk.

### *The Role of the Physician*

A clinical guideline for fall assessment and prevention by healthcare practitioners has been jointly developed by the American Geriatrics Society (AGS) and the British Geriatrics Society (BGS). The aim of the guideline is to assist healthcare professionals in assessing fall risk and in managing older people at risk of falls, as well as those who have fallen. According to the AGS/BGS guideline, a basic fall risk assessment should include: fall history, medication review, a focused physical examination, review of functional and cognitive status, and an environmental survey.

Specific fall prevention interventions should be tailored to the findings of the assessment and generally include exercise programs and other specific risk-reduction activities. Quality of care indicators have also been established for falls and mobility disorders. The Assessing Care of Vulnerable Elders (ACOVE) Project identified evidence-based indicators to use for assessing quality of care for those at increased risk for functional deterioration.

- All vulnerable elders should be asked about recent falls at least annually.
- All vulnerable elders should be asked about or examined for balance and/or gait problems.
- If the patient reports more than one fall in the past year then a basic falls evaluation should be done including:
  - HISTORY: fall circumstances, medications, medical problems, and mobility/ambulatory status.
  - EXAM: orthostasis, vision, gait, balance, and neurological.
- If the patient has a problem with balance or gait, then a basic gait and balance evaluation should be done.
- If the patient has problems with balance or proprioception, then an exercise program and assistive device evaluation should be offered.
- If the patient has problems with gait, strength, or endurance, then an exercise program should be offered.

The development of the evidence-based AGS/BGS guideline and the ACOVE quality of care indicators both attest to the advanced state of knowledge regarding the prevention of falls. We know a great deal about how to prevent falls; now we need to convert that knowledge into practice.

### Community-Based Programs

Exercise and rehabilitation programs that combine balance, strength and flexibility training have proven beneficial. Among the benefits are increased strength, endurance and improved gait and balance. Exercise programs have also reduced falls and reduced hospital days. Physical activity is an important component of healthy aging, and community-based programs should encourage exercise and walkable communities. Environmental modifications, such as removing home hazards and installing features such as grab bars, have also proven effective in reducing falls among community-dwelling seniors.

### Multi-Factorial Interventions

In general, multi-factorial interventions are more effective than single interventions. For example, education programs linked to feedback and referral components are more effective than education alone. Home modifications combined with physical therapist visits have demonstrated a reduction in falls, while home modifications alone have not.

The RAND-Medicare Healthy Aging Project analyzed research on fall prevention and interventions including: focused falls risk assessment and follow-up, exercise, environmental modifications, and education. A meta-analysis using pooled data from these studies demonstrated a 27% reduced risk of falls from the studied programs.

In summary, we know how to prevent falls and reduce injuries, using proven intervention strategies aimed at both low-risk and high-risk seniors. There is a wide spectrum of risk-appropriate tools and clinical interventions available. The challenge now is to put into practice throughout California the state-of-the-art knowledge that has already been compiled through innovative programs and rigorous research. Education of healthcare providers about the fall prevention bi-national consensus panel Guideline is an important first step.

### **TAILORING FALL PREVENTION TO INDIVIDUAL LEVELS OF RISK**

B. Josea Kramer, PhD, Associate Director for Education, Geriatric Research Education Clinical Center (GRECC), VA Greater Los Angeles Health Care System, Professor, UCLA School of Medicine.

An important concept in fall prevention is the individual tailoring of prevention activities to a personal level of risk. The following vignettes illustrate how individuals at varying levels of risk are matched to different types of fall prevention activities.

#### *Low-Risk for Falls*

Most community-dwelling seniors are at relatively low-risk for falls. Elders who are inactive or overweight are at increased risk. Unfortunately, many older adults may not recognize the need for physical exercise to stay fit. Fall prevention programs aimed at community-living elders should include education regarding the need for physical exercise to remain fit. Many senior centers offer exercise programs aimed at this low-risk group.

***Recreational exercise is a fall prevention activity  
that is ideal for older adults at low-risk of falls***

*Betty, an 84-year-old widow, lived in her own home of the last 50 years. She had difficulty getting up from the floor and felt winded when walking the short block from her home to the mailbox. Her health was good although she was overweight and inactive. Exercise recreation had never been part of her life before; she preferred bridge and book clubs. Her adult children urged her to try a senior center fitness class. She reluctantly agreed and found that she really enjoyed the activity and new friends who she met in the class. After a few weeks, Betty was able to rise from the floor without assistance. After a few more weeks, she surprised herself by walking one mile with no difficulty. Exercise has improved Betty's confidence and well-being; her strength has improved and, consequently, reduced her risk of falls and injuries.*

### Moderate Risk for Falls:

Disease and disability increase the risk of falls. The aging process often brings impaired vision and/or hearing, muscle weakness, and balance and gait problems. Comprehensive clinical evaluations can identify underlying medical conditions that may contribute to an increased risk of falls.

#### ***Disease and disability increase the risk for falls***

*Joe lived alone in a small rural town and was doing fine until nine months ago. His legs began to feel “rubbery” and frequently “gave out” when he stood. Then he experienced numbness in his arms and legs, and bursts of “shooting pains.” His doctor reviewed Joe’s medical history, which included severe osteoarthritis of the hands, knee and spine, and documented the abnormal gait, pain on walking, weaknesses in hands and legs, abnormal reflexes and decreased sensations in the legs and movement of the neck. Joe’s doctor determined that the falls were the result of nerve damage (peripheral neuropathy) and narrowing (spondylosis) of the spine caused by arthritis. The laboratory results suggested low thyroid and anemia and when these conditions were treated, the neuropathy also improved. The doctor also arranged for physical therapy to rehabilitate Joe’s gait. After a MRI test indicated that the narrowed spine was compressing nerves, Joe consulted with a neurologist and is considering surgery to relieve his pain and improve his function.*

### Moderate to High-Risk for Falls:

Individuals who have suffered medical conditions such as a stroke or prolonged bed-rest may be at substantially increased risk of falls, and may be considered either moderate or high-risk, depending on the severity of their condition. Often fatigue and muscle weakness reduce mobility, increasing the burden on caretakers. After conducting a comprehensive assessment, healthcare professionals may recommend multi-factorial interventions tailored to the needs of moderate and high-risk individuals. Community-based programs, including senior centers, may offer targeted exercise programs to improve gait, balance and strength, and to overcome sensory deficits.

#### ***Tailoring fall prevention to individuals can reduce moderate and high-risks for falls***

*Jack, at 70 years old, no longer drove a car after suffering a heart attack and a stroke, but he was medically stable. Most of the day he sat at home and rarely got out of his easy chair. His legs were so weak that he could not rise from the toilet without assistance. Jack’s wife had become his full-time caregiver. Hoping to help her husband, as well as relieve her stress and fatigue, she enrolled Jack in a balance and mobility training program at the local senior center. The program, run by a healthcare professional staff of physical therapists, evaluated Jack’s condition and developed a targeted exercise program to improve his gait, balance and strength and to overcome his sensory deficits. The impact has been dramatic for Jack and his wife. Jack can now rise from the toilet unassisted, engages in various activities that he used to enjoy, and best of all, he is able to play with his young grandchildren. His wife describes him as a “whole new person.”*

### High-Risk for Falls

Those who have experienced multiple prior falls or a recent injurious fall are at the highest risk for future falls. For that reason it is important to identify factors that contributed to earlier falls and address those conditions. A comprehensive fall assessment evaluates multiple risk factors that are intrinsic to the individual (e.g., health conditions), extrinsic (e.g., medications) and environmental (e.g., home safety). The assessment determines which risks can be modified and identifies interventions to reduce these risks.

***Persons who have fallen are at highest risk for falls  
and would benefit from a comprehensive fall evaluation***

*Helen, a 95 year old woman, lived in a board and care facility. She fell for the fourth time in three weeks while bending down to pick up an object from the floor. Her doctor conducted a comprehensive fall evaluation, noting her medical history of heart disease and hypertension and use of a mild diuretic. The doctor's physical examination found that Helen's blood pressure dropped significantly when she stands up (postural or orthostatic hypotension), that she had mild muscle weakness related to age and inactivity, as well as problems with her gait and balance. Blood tests found abnormal levels of blood urea nitrogen, indicating dehydration, which most likely was caused by her medication. Her doctor determined that orthostatic hypotension was the most significant cause of her falls and that the medication was also a contributing factor. The doctor told Helen to stop using the diuretic, increase her fluid intake and educated her on how to prevent falls. Physical therapy was prescribed for strengthening. A home environmental assessment was performed and potential hazards were eliminated. The results: no more falls.*

## **Part II: Interventions in California**

### **THE CALIFORNIA INFRASTRUCTURE FOR FALL PREVENTION**

Debra J. Rose, PhD, Director, Center for Successful Aging, California State University, Fullerton.

Dr. Rose provided an overview of the varied resources for fall prevention existing within California that could serve as a foundation for building a statewide plan. The programs and services currently available are based on successful intervention strategies described in the research literature (e.g., multi-factorial risk screening and follow-up, targeted exercise programs, home and environmental modification, health promotion and education.)

#### The California Infrastructure

California already has an infrastructure in place to address the prevention of falls in the older population. A number of organizations, both state-funded and privately-funded have initiated fall prevention programs in a variety of settings, with several already demonstrating successful outcomes. Existing programs in California vary widely by target population served, including level of risk; geographic location; services provided; and funding source. Some programs target high or moderate-risk seniors while others are open to all; some are state-initiated while others are community-based; some are multi-site while others are limited to a single site; some are primarily informational or educational while others provide interventions that include exercise or home inspections and modifications.

In addition, funding sources may be federal, state, local, private or some combination. This wide diversity of California programs provides varied resources upon which to draw in developing a statewide plan. The challenge ahead will be to coordinate, expand and provide stable funding to this diverse network.

The California Departments of Aging and Health have promoted fall prevention and health exercise initiatives. Within the California Department of Health Services (CDHS), the Epidemiology and Prevention for Injury Control (EPIC) branch is the lead injury prevention unit. EPIC collects epidemiological data to track when and where Californians fall, in order to direct intervention strategies. EPIC is also involved in policy and program development. In conjunction with collaborative partners they have co-developed the No More Falls! project and the Walkable Neighborhoods for Seniors project. The California Department of Aging (CDA) sponsors Senior Services programs and additional services designed to assist seniors at risk of institutionalization. The Multipurpose Senior Services Program (MSSP) currently assists more than 11,000 older adults (in over 40 California communities) at risk of institutionalization to remain in their homes. The CDA also sponsors the StayWell education program that promotes exercise and safety, as well as nutrition and mental well-being.

### California Fall Prevention Programs

Some programs already address fall prevention among high-risk, moderate-risk and low-risk elderly persons. The White Paper describes examples of existing programs in settings as diverse as clinics, hospitals and adult day care centers, as well as programs at senior centers and other community-based locations. The White Paper is available at [www.archstone.org](http://www.archstone.org). A major challenge now is to find ways to expand the range of accessible services and programs to all seniors throughout the State.

The following activities are considered important for sustaining the momentum and expansion of fall prevention services in California:

- Further develop the “blossoming” fall prevention infrastructure in California;
- Provide program personnel with the necessary knowledge and skills;
- Facilitate communication among existing programs;
- Design and implement fall prevention programs that address the needs and interests of a culturally diverse older adult population;
- Provide more services and programs to homebound and geographically isolated older adults;
- Develop and disseminate standardized protocols for preventing falls;
- Establish a stable funding source;
- Pool existing expertise to form a statewide coalition committed to the development and implementation of fall prevention strategies;
- Provide regional workshops to prepare potential senior service providers with the skills needed to implement proven fall prevention initiatives that are tailored to the needs of their constituents;
- Develop a statewide clearinghouse identifying fall prevention services and resources;
- and
- Infuse existing health promotion programs for seniors with fall prevention elements.

## **THE ROLE OF HOME MODIFICATION IN FALL PREVENTION**

Jon Pynoos, PhD, Director, and Dory Sabata, OTD, Program Specialist, National Resource Center on Supportive Housing and Home Modification, Ethel Percy Andrus Gerontology Center, University of Southern California.

Dr. Pynoos presented on the role of the physical environment in falls and ways that it can be modified to reduce risk.

### *Introduction*

The home environment is important because one's physical surroundings can enhance or impede one's functional ability and quality of life. Older adults have a strong preference to age in place (i.e., in their own homes), for psychological reasons, familiarity with the environment, and ties to the neighborhood.

### *Home Modification*

Home modification refers to converting or adapting the environment to make performing tasks easier, reduce accidents and support independent living. Home modification includes removing hazards, adding special features such as grab bars, moving items or furnishings to reduce hazards, changing how or where activities occur to minimize risks, and renovating or changing the structure to accommodate disability.

Research indicates that home modification can be cost-effective and save long-term care expenditures. Controlled intervention studies have shown that home modification, in combination with assistive devices, fall assessment, home visits, and follow-up by an occupational therapist, reduced risk of future falls. Research cannot demonstrate that home modification alone has these benefits because of the difficulty of isolating extrinsic factors such as scatter rugs, from intrinsic factors such as balance, and difficulties in standardizing measurement of home hazards. Therefore, the RAND meta-analysis recommended including home modification in a multi-factorial strategy of fall prevention

### *Common Home Hazards*

The biggest problem areas of the home that contribute to falls are outside steps to an entrance, inside stairs to a second floor, and unsafe bathrooms. The most common hazards within the home include clutter, electrical cords crossing pathways, slippery throw rugs, loose carpets, inadequate lighting and unstable or unsupportive furniture. Checklists may help identify home hazards and the need for home modifications. However, assessments by professionals of both the environment and the person's use of the environment are more effective in implementing changes.

### Barriers to Home Modifications

Many elderly persons' households have unmet needs for home modifications. The elderly also report a number of barriers to home modification. An AARP survey reported that the barriers most frequently reported included: unable to do it oneself; cannot afford it; do not trust contractors; don't know how to do it; and have no one to do it.

### Funding Home Modifications

The home modification delivery system is under-funded, fragmented and poorly coordinated. Most persons pay for home modifications out-of-pocket since Medicare and conventional Medicaid pay for few repairs or adaptations. There are few skilled providers and they are difficult to access because of a "patchwork" delivery system. While California has 300 home repair/modification programs, they rely on funds from varied sources that are difficult to access and often unstable.

### Home Modifications Practices

Ideally, home modification should include: referrals of persons with a history of falls; assessments of the home environment and functional ability by professionals such as occupational therapists; attractive and acceptable home modification solutions; education of consumers, professionals and policy-makers; adequate funding; easy access to the home modification delivery system; and follow-up to insure the appropriate use of home modifications.

### Conclusions

The homes of older persons contain numerous hazards and problem areas and lack supportive features. Evidence suggests home modification is an important element in a fall prevention strategy. Proven practices such as assessments and home visits by a professional can improve effective utilization. The successful use of home modification necessitates increased understanding of home modification, advocacy to assure stable funding, increased skill levels of providers, better system coordination and research about cost-effectiveness.

Promising recent developments include: home modification coalitions to increase the quality and availability of home modification; training programs to upgrade skills; better methods of assessment; and advocacy for new housing that is more accessible and supportive.

### **Part III: Other System-Wide Interventions**

In order to help participants think beyond the models existing in California experts from three other regional or system-wide interventions discussed efforts in the United States and Canada. Fall prevention strategies have been implemented at various levels in other areas: system-wide in the Veterans' Health Administration, regionally in Connecticut, and nationally in Canada.

#### **TAMPA VETERAN'S HOSPITAL FALL PREVENTION NETWORK: A HOSPITAL-BASED PROGRAM**

Stephanie Hart-Hughes, BSc, PT, Director, Gait and Balance Laboratory, Tampa Veterans Hospital.

Multi-disciplinary fall clinics have been established in Veteran's Administration hospitals and clinics in Florida, Southern California and Nevada as part of a system-wide effort to develop fall prevention clinics in all VA hospitals. The Tampa Falls Clinic was developed as an early model that now disseminates information to other hospitals, holds annual fall prevention conferences and mentors hospitals and clinics initiating their own fall prevention clinics.

The Tampa multi-disciplinary clinical team (Falls Team) includes: a medical doctor/geriatrician; a nurse; a physical therapist; a pharmacist with geriatric specialization; an administrative assistant; and a site coordinator. Team members' duties include: direct patient care; developing team assessment protocols; clinic marketing; program administration and development; participating in research; knowledge transfer; and training other providers within the community and the veterans' healthcare system.

The Tampa team initially performs a multi-disciplinary assessment that serves as a gateway for outpatients to access other clinic interventions. The assessment includes: postural vital signs; visual, hearing and mental status screening; pain assessment; analysis of fall history; medical examination; medication review; functional assessment of balance, gait, and strength; and evaluation of prosthetic and orthopedic needs. The program is regarded as a "one-stop fall prevention shopping" intervention. Customized interventions are usually a combination of direct clinical interventions performed by the Falls Team and recommendations to primary care providers. Interventions include:

- medication adjustments by the team or suggestions to primary care physicians;
- referral to specialty services (neurology, orthopedics, rehabilitation);
- referral for testing (e.g., DEXA, MRI, EMG, blood tests);
- issuing prosthetic/orthotic equipment;
- patient education; and
- participation in specialized interventions such as classes to promote functional balance or to reduce fear of falling.

The factors that helped facilitate the development of the Tampa clinic include: VA support; high demand/need for this service; computerized patient charts; multiple specialty services available; ease of referral; a strong relationship with the prosthetic department; and specialization and commitment of the inter-disciplinary team.

## **PREVENT FALLS: CONNECTICUT COLLABORATION FOR FALL PREVENTION**

Dorothy Baker, PhD, RNCS, Co-Investigator, Yale University School of Medicine;  
New Haven, Connecticut.

Previous research at Yale University demonstrated that falls can be prevented using a targeted multi-factorial risk reduction strategy. This research is known as the Frailty and Injuries: Cooperative Studies of Intervention Techniques (FICSIT). Research showed that fall prevention is cost-effective because intervention costs are more than offset by decreased healthcare utilization (average \$2,000 per person) in the year after intervention.

The Connecticut Collaboration for Fall Prevention is a dissemination program intended to translate this research into practice. The goal is to improve prevailing knowledge, attitudes, skills, and behaviors related to fall risk assessment and prevention among seniors and care providers. It aims to expose target groups to strategies for fall risk assessment and intervention. It also seeks to improve knowledge and attitudes among targeted groups concerning falls as a common and serious health problem that are preventable by intervening on multiple modifiable risk factors. Another aim is to increase the number of older persons who receive fall risk factor assessment and intervention, and to decrease fall-related emergency department visits and hospital utilization.

The intervention is multi-factorial, multi-disciplinary, multi-level, multi-site, and multi-media. Work groups are multi-disciplinary in nature and the materials regarding risks and interventions are multi-level, appropriate to each type of provider and consumer group. Programs are also multi-site, imbedding fall prevention into settings where older adults receive care or congregate, including hospitals, home care agencies, rehabilitation and physician practices, and senior centers. The multi-media campaign utilizes a variety of outlets, including clinical checklists, protocols and teaching tools.

Barriers to fall prevention include:

- lack of awareness by older adults and their caregivers;
- ageism;
- resistance to exercise; and
- a fragmented healthcare system that is not oriented toward prevention.

Factors that facilitate fall prevention include:

- the relatively low cost of interventions;
- professionally produced media; and
- interventions that are easy to understand.

Collaboration provided an opportunity to join public health, clinical facilities and the network of senior services. The program found many allies who view injury prevention as part of their role. A perceptual shift has occurred in the community with concrete constructive interventions to prepare the communities for the aging population.

## **CANADIAN PROGRAMS TO PREVENT FALLS AND INJURIES AMONG SENIORS**

Elaine M. Gallagher, RN, MScN, PhD, Professor, School of Nursing, University of Victoria, Victoria, British Columbia.

Canada has developed a national priority to prevent falls among seniors, and provincial governments are developing calls to action. Surveillance statistics have been collected to document fall patterns by geographic region, to identify risk factors that vary by locale and to guide local intervention strategies. Hospital statistics for falls were presented for British Columbia and for regions within the province for the ten-year period ending in 2000/2001. Considerable variation was noted between regions.

Institutional data, such as hospital discharge data, can be a useful tool in fall surveillance and prevention by identifying risk factors. Fall patterns resulting in hospitalization are related to time of day, with falls peaking at 8 a.m. and again at 6 p.m. Fall patterns within the home are also related to location. In this study, the most frequent locations for falls within the home are bedrooms, hallways, and bathrooms. Contributors to falls in the home include inappropriate footwear, clutter, and poor lighting.

Fall patterns, as well as risk factors, vary by the level of risk of the target population and intervention strategies should be tailored to the target population and their level of risk. A comprehensive, evidence-based fall prevention plan should include at least five inter-related elements, including:

- medical care;
- environmental modifications;
- exercise;
- education; and
- equipment.

Coalition-building is an important strategy. A participatory approach builds local leadership, promotes relationships and coalitions, combines efforts of people with different skills, and builds community commitment and competencies. One program of community-dwelling seniors in Canada formed a coalition of seniors, people with disabilities, retired professionals, nurses, physiotherapists and city officials.

Other data sources are focus groups. Focus groups of community-dwelling seniors indicated most falls among this low-risk group occurred outdoors in daylight and identified uneven sidewalks and cracked pavement as a common cause of falls. The coalition was able to achieve political goals by engaging municipal authorities and increasing the budget and staff for sidewalk repairs. By reducing falls due to cracked sidewalks, they also achieved a measurable decrease in hip fractures in the region.

# Effecting Change in California

## At the Political Level

### A VISION FOR CALIFORNIA

Senator Deborah Ortiz, JD, California State Senate, District 6; Chair, Health and Human Services Committee; Member, Senate Subcommittee on Aging and Long Term Care.

Senator Ortiz shared a vision for a healthier California and encouraged participants to partner with legislators to improve care. Legislators need professionals and advocates who not only ask for help, but also assist in helping to accomplish the goals. Participants' expertise and knowledge are needed in drafting a blueprint and making the case to legislators about the importance of fall prevention. The California blueprint for fall prevention should be comprehensive and pragmatic. The State needs workable solutions that are affordable and based on an understanding of the communities to be served.

In California, the health of the elderly poses a particular challenge. There are 3.8 million Californians aged 65 and over and the number is increasing. The quality of life diminishes dramatically after fall injuries, but many falls are potentially preventable with minimal investment.

The costs to the healthcare system when seniors fall are enormous. Falls account for nearly half (40%) of nursing home admissions by seniors due to unintentional injuries. Over half of injury-related deaths occur at home and many could have been prevented with simple home modifications. Proper assessment and consultation can decrease falls, avoid hospitalization and institutional care.

It has been the policy of the State to encourage wellness and promote healthy lifestyles. There is a need to educate seniors and caregivers to achieve healthy lifestyles. Earlier legislation awarded grant funds to local agencies with the intent of reducing the risk of falls and enabling seniors to live safely at home and remain independent in their communities. Continued investment in home and community-based resources and programs for seniors is essential. Such community-based programs are valuable in preventing falls and are good resources to educate seniors and their caregivers.

Today, the State is facing budget deficits and injury prevention programs are vulnerable to budget cuts. Current budget hearings are attempting to identify critical core programs to preserve. Fall prevention advocates need to create a strategic voice to argue that small investments in fall prevention can provide big returns. The challenge for attendees is to educate legislators about the importance and cost-effectiveness of fall prevention. An opportunity exists to create a comprehensive blueprint for fall prevention that will guide the State and tomorrow, the nation.

## **DEVELOPING POLICY TO ADDRESS FALL PREVENTION**

Assemblymember Lynn Daucher, BS, California State Assembly, District 72, Chair, Assembly Committee on Aging and Long-Term Care.

Assemblymember Daucher challenged participants to think about policy strategies to move forward a fall prevention plan for California.

The first challenge to the participants was to recognize that determination and persistence are needed to impact policy and achieve goals. A number of strategies can be pursued to achieve goals for senior services. State-mandated legislation is not the only strategy and may not be the best solution. Consider addressing policy at the local level. Ask local city councils to add local health services and prepare and plan for coming demographic changes. Consider whether private partnerships can provide the service more effectively. The private sector should be motivated to create innovative solutions.

The second challenge was to focus on senior rights and to keep them in the forefront in developing any plan. The Supreme Court's Olmstead Decision states that seniors have the right to be in the least restrictive environment possible. The State must plan for the least restrictive environment for seniors and must have an individual plan that allows seniors to stay in their homes if that is what they choose.

The third challenge was to be realistic about potential funding streams. Most large funding streams are complicated and restrict options. Medicare and Medicaid regulations differ regarding skilled nursing care. Medicare pays for post-hospital care, based upon the medical model. The State must pay for other care, based on the social services model.

The final challenge was to get involved in the legislative process, recognizing its potential and shortcomings. She cautioned participants to be certain that they wanted legislative help to address the problem, since there may be unintended consequences. Getting legislation introduced and passed requires a great deal of work. If legislation is sought, proponents must be prepared to work as partners to achieve passage. Proponents must be prepared to rally supporters, provide data (including anecdotes with emotional appeal), talk to committee members and legislators, and be willing to testify at hearings. Numerous faxes may cause a legislator to look more closely at an issue. Paid lobbyists are helpful in getting a bill passed as they provide important information to legislators. Proponents should talk to analysts, staff members who prepare reports for committees, members of the Appropriations Committee and the Budget Committee. The Budget Committee is interested in long-term cost-effectiveness but needs to also hear about short-term cost-savings.

In conclusion Assemblymember Daucher said "You must have a passion for what you do. You must be determined and persistent and never give up in seeking solutions."

## Needs of California Communities

### FALL PREVENTION ISSUES IN CALIFORNIA

Barbara Alberson, MPH, Chief, State and Local Injury Control Section, California Department of Health Services.

Ms. Alberson emphasized the impact of falls on older Californians and challenged participants to think about practical strategies to be used in a time of scarce resources.

#### *Impact of Falls*

Falls are a very real threat to the well-being of many older Californians. On average, two older Californians die every day from fall-related injuries. Each year, more than 1.3 million Californians aged 65 and over suffer injury from falls. It is estimated that some 213,000 seniors visit the emergency department and more than 60,000 are hospitalized. The estimated cost of fall related injuries is \$3.5 billion per year in California.

The average estimated medical cost of a senior fall-related hospitalization in California is \$30,000. One of the most common serious injuries is a hip fracture. More than 40% of those hospitalized for hip fractures never return home or live independently again and 25% will die within one year. The loss of independence that follows a serious fall may lead to institutionalization, contributing not only to human costs but also to escalating healthcare costs.

Older adults become more vulnerable to falls with increasing age. California has the largest elderly population of any state in the country, with over 3.8 million residents age 65 and older. In addition, the senior population will rise dramatically in the next 20 years, with the largest increase in those over age 85. The risk of fall injury increases dramatically with age, and as the senior population increases, we can expect corresponding increases in the number of injurious falls suffered by seniors.

The quality of life costs of falls, as well as the health care costs to both taxpayers and consumers, dictate the need for a statewide initiative addressing fall prevention. The State of California has implemented pilot programs addressing fall prevention and several of these programs are described in the White Paper.

The challenge in the current budget crisis is to develop a shared vision and use opportunities for collaboration to achieve fall prevention goals. Policy-makers will favor recommendations that can be done with existing resources or administratively at minimal cost. It is important to focus on incremental change and on capacity-building in small, purposeful steps working across program lines and integrating fall prevention into existing complementary activities.

Physical activity is one strategy that should be a top priority because it is easy to implement, not costly, and offers many health benefits. Physical activity improves balance, strength and flexibility, helps maintain healthy body weight, decreases disability due to chronic diseases, makes it easier to perform activities of daily living, and improves mental health. Walking is a good option because seniors love to walk, it is inexpensive and promotes effective injury prevention. In conclusion she stated that “In times of scarce resources, when opportunity knocks, we must figure out a way to open the door.”

## **COMMENTS FROM THE CALIFORNIA DEPARTMENT OF AGING**

Lynda Terry, MPA, Director, California Department of Aging.

Ms. Terry reflected the perspective of the California Department of Aging (CDA) and challenged the participants to identify strategies for reducing the risk of falls.

California needs to be proactive in promoting policies and programs that will increase the ability of its aging population to live a good healthy quality life. Preventing falls and injury is of utmost importance to achieve this. This conference will help identify the key priorities and objectives for injury prevention, including the prevalence and causes of falls in the elderly and possible interventions to reduce the risk of falls. It will identify risk factors, intervention strategies and provide evidence of effectiveness in reducing falls. It will also spotlight the needed training of healthcare workers, importance of environmental safety and clinical assessment.

The importance of education is vital in this campaign against falls and injury. Education is key to providing aging adults information on how to adopt a healthy lifestyle, how healthy alternatives can be made more accessible and how to make the home a safer place to live.

Programs must be relevant to California's growing culturally diverse population. These strategies need to be do-able in low-income neighborhoods and accessible to persons of varying physical ability. Planning and coordination is the key to accomplishing this outreach effort. The strategy adopted will reflect the commitment and emphasis on prevention rather than paying the cost later.

## **COMMENTS FROM THE DEPARTMENT OF HEALTH SERVICES**

Carol A. Freels, Chief, Office of Long Term Care, California Department of Health Services.

Ms. Freels, speaking on behalf of Dr. Diana Bonta, Director, California Department of Health Services (DHS), urged participants to build on the existing infrastructure and recommend concrete solutions applicable to our diverse populations.

California's health and social service professionals statewide are depending on conference recommendations in order to address what is known to be a very real threat to the well-being of many older Californians. California's communities require a tool-kit approach to public health rather than one universal tool. No one intervention addressing falls among older persons will likely be the magic bullet solution. A wide spectrum of interventions is needed to assist local professionals in California's small rural communities, as well as those in large urban centers. Participants were urged to build on best practices to provide the specific tools needed by local medical and social service professionals and to think globally, but provide tools that can be applied locally. The needs of California's diverse communities should guide discussions.

## Partnerships

### RESPONDING TO THE NEEDS OF OLDER CALIFORNIANS

Fernando Torres-Gil, PhD, Associate Dean for Academic Affairs, School of Public Policy and Social Research, University of California, Los Angeles.

Dr. Torres-Gil reminded participants that all of us have an incredible stake in fall prevention.

*“We are all one fall away from medical treatment, from hospitalization, from disability, from forced retirement, or a nursing home.”*

We must find ways to integrate fall prevention into what we do, whether service delivery, public policy, legislation, advocacy, volunteerism, or other services. Public apathy exists regarding policy issues of universal access, Medicare and Medicaid reform, and expansion of the safety net. We need a critical mass to achieve major reforms in how federal and state governments respond to individual and group needs. The issue of falls is a cross-cutting issue, important to older persons, to those with disabilities, and to those concerned with issues of diversity.

We need to incorporate research, knowledge and information into legislation, regulation, service delivery, advocacy, and coalition-building. We also need to create a public message that will resonate with most people who would not normally have direct concerns about these issues.

Every family has someone who worries about a fall or has experienced a fall. We all have something in common. All of us have to face that we want a quality of life free from the insecurities of poverty, isolation, disability and falls that keep us from enjoying a good, healthy and long life.



## Interactive Workgroup Findings

Three workgroup sessions engaged conference participants in reflecting and sharing their insights and ideas about preventing falls among seniors, fostering opportunities for collaboration and creating a blueprint for action. In addition to building a community of leaders and advocates for fall prevention, the three workgroups focused on specific questions of concern:

- (1) Challenges and opportunities in fall prevention;
- (2) Collaborative strategies for fall prevention; and
- (3) Strategies and resources for the future, including individual commitments.

The three workgroups provided insight and understanding as they shared experiences, proposed strategies, and made commitments for the future of fall prevention. The outcomes of each working session are summarized in the following pages.

### Working Session One Challenges and Opportunities in Fall Prevention

#### **CHALLENGES:**

Participants were asked to identify challenges to be overcome in reducing falls among California seniors.

#### *Funding*

Limited funding has contributed to a lack of available fall prevention services in healthcare settings, the home and the community. Current reimbursement policies and the categorical nature of available funding limit flexibility in covering the services needed to reduce falls.

#### *Leadership*

Statewide leadership and a shared vision for fall prevention are essential.

#### *Education and awareness*

Providers, caregivers and seniors need education to effectively address risk factors, risk assessment, prevention and intervention strategies and to access available resources. A lack of public awareness and apathy about the magnitude of falls as a public health problem were seen as a major challenge. Ageism is another contributing factor, and seniors themselves may resist lifestyle changes that could prevent falls.

#### *Access*

There is insufficient access to effective programs and resources. Access is a challenging area due to the size of the State, urban and rural differences, transportation issues, and the great diversity of the population.

#### *Research*

There is a disconnect between science and practice. Knowledge gained from research is not always translated for use in the field and likewise, knowledge from practice is not always shared with the research community.

### Policy

Policies are lacking to support coordination efforts, and the infrastructure for fall prevention is currently under-developed.

### Professional Training

Fall prevention strategies to assess risk and tailor intervention are not yet integrated into all levels of professional clinical training programs or into programs for community-based human services.

### **OPPORTUNITIES:**

Participants also recognized a plethora of opportunities or resources that could be tapped to address these challenges.

### Advocacy efforts

- Mobilize existing advocacy networks (e.g., OWL, Grey Panthers, etc.).
- Use national groups, such as AARP and the American Medical Association, as resources.
- Mobilize the increased numbers of baby boomers and engage older adults, who are often politically active, as a force for change.

### Impacting policy

- Educate legislators on core needs of the elderly.
- Establish regulations for data collection relevant to fall prevention.
- Evidence-based outcomes and interventions could be used to develop new public policy.
- Public policy could facilitate coordination across systems.
- Create a statewide council to provide leadership and guidance for a strategic effort in fall prevention .
- The statewide council could help shape the development of California's strategic plan on aging.

### Professional training

- The multiple disciplines that may serve older adults could be mobilized in fall prevention via professional education and cross-training.
- Existing communication infrastructures can be used to train California physicians (e.g., satellite and video conferencing; sponsorship of statewide providers, such as the VA or University of California).
- Existing physician networks can be activated to promote participation in training and engaging statewide professional and public health networks.

### Public education

- Educate the media on fall prevention issues and strategies to develop partnership for public education.
- Tap into existing senior education and information activities.
- Involve pharmaceutical companies as a resource for educating elders.

### Collaboration

- Collaborate across healthcare and human services sectors to have the greatest impact.
- Promote service learning models of interagency collaboration.
- Promote coalition building, coordinating and networking.

### Community-based approaches

- Promote cost effective community-based approaches.
- Partner with family members, volunteers, faith-based organizations and aging networks to educate communities.
- Develop roles for volunteers.

### Nontraditional funding

- Refocus private funding on falls prevention.
- Encourage foundation support for research, training and program development.
- Encourage the pooling or redirecting existing public funds to allow cross agency collaboration.

## **Working Session Two Collaboration: Who should be at the table?**

The purpose of the second workgroup session was to identify current collaborative efforts to prevent falls and to explore opportunities for greater collaboration among new and existing partners. Participants grouped into the four California regions addressed the following questions:

- What program and policy efforts are currently taking place to promote collaboration at the local, regional, and/or statewide level in the area of fall prevention?
- Who is involved? Who is missing?
- Who else do we need to engage in the work of fall prevention?
- How do we engage our partners?
- What commitments can we make (personal or organizational) to promote greater collaboration?

### **EXISTING PROGRAMS AND EFFORTS:**

Participants identified several existing collaborative efforts around the State that could be built upon in moving forward the work in fall prevention.

### Planning and coordination

Develop strategic plans with providers and community members, convene “thought leaders” to create a vision for fall prevention, develop fall prevention workgroups and committees within the broader coalition, and undertake other activities designed to reduce duplication of efforts and increase efficiency and impact. Specific examples already exist.

- A Home Modification Coalition was created in the Sacramento area to plan education and improve housing facilities with partners such as Sacramento Municipal Utility District, Sutter Hospital, Eskaton Hospital, Older Women’s League, and the City of Sacramento.
- The Novato Independent Elders in Contra Costa County works with city parks and recreation to plan senior programs and activities.
- The Coalition for Walkable Communities for Seniors in Alameda County involves public health, the fire department, emergency medical services, Kaiser, United Seniors of Oakland, and private business in making the community safer for seniors to active and engaged in the community.

### Local advocacy/policy development

Establish collaborations to build fall prevention constituencies at all levels of policy-making. Existing examples included:

- The Senior Injury Prevention Project (SIPP) in Alameda County involves the health department, Area Agency on Aging, United Seniors Association and others to promote injury prevention.
- The Sacramento chapter of Rebuilding Together has a housing coalition comprised of Area Agency on Aging, county agencies, hospital discharge planners, local business/hardware stores, and others to advocate for home safety and modification issues.

### Professional training

Fall prevention should be integrated into new and/or existing curricula that train healthcare and the public health workforce (e.g., nursing, occupational health, physical therapy, physicians, epidemiology, and other related disciplines). Existing examples cited include:

- Collaborative with the Association of Rehabilitation Nurses in Greater Los Angeles region has developed a “tool kit” for fall prevention.
- The Stanislaus County Area Agency on Aging collaborates with junior colleges to train contractors and students in home repair and modification.
- The University of California, Davis educates physicians on fall prevention as part of its post-graduate clinical teaching program.
- An internet program trains case managers regarding how home modifications can prevent falls ([www.homemods.org](http://www.homemods.org)).

### Public education

There is a need for more collaborative efforts to promote community and public education about fall prevention. Current examples include:

- “Young At Heart” – a network and collaborative of strength training agencies in San Francisco supplies information about fall prevention and other issues affecting seniors on websites, and other venues for public education and awareness.
- Collaboration among public health, HMOs, hospitals, and foundations in Imperial County, Oceanside, and El Centro led to senior health fairs.
- San Diego’s Vital Aging group focuses on health and wellness promotion and engages service providers, nutritionists, and local celebrities in public education and awareness efforts. Many area shopping malls have opened their doors early in order to encourage seniors to walk the mall.

### Coordinated services and referrals

Coordinate services and provide referrals to services and information among varied organizations and stakeholders that avoid duplication of services and create a seamless system for assessment, prevention and treatment. Specific examples include:

- A Senior Hotline was created within non-profit hospitals in greater Los Angeles to effectively connect seniors to partner agencies and community-based organizations when a fall does occur.
- Preventive healthcare referrals in Humboldt and Del Norte Counties involve Area Agencies on Aging, local providers, churches, and senior centers.

### Connections to specific populations/communities

Form collaborations to conduct outreach and enhance services and programs to specific populations and ethnic communities. Existing examples include:

- The Foundation for Osteoporosis Research and Education (FORE) convenes national partners to educate people with osteoporosis.
- The San Francisco Health Department collaborates with the disability community and organizations to address issues of in-home assistance.
- Representatives from different ethnic communities in Greater Los Angeles have convened to address issues of aging and cultural competency.

### Fund development/resource building

There is a need to “inventory” current services and resources in order to identify service gaps. Collaboratives such as the Fall Prevention Workgroup in San Diego, the Elder Abuse Prevention Alliance, the Task Force on Fall Prevention in Marin County, and the Fall Surveillance and Training Program in Los Angeles offer opportunities to explore joint funding of projects.

### Research

There is a need to develop traditional academic partnerships as well as non-traditional partnership to engage in research and collection data on falls, which will contribute to the growing body of literature and understanding of the problem. Examples included:

- “Everybody Walks in Berkeley on Wednesday,” is a research project that uses walking groups to inform injury prevention efforts.
- The Community Health Improvement Program for Seniors (CHIPS) partners with the UCSF Medical Anthropology Department to assess factors that influence whether seniors make home modifications that could prevent falls.

## **BARRIERS TO CORRINATION ON FALL PREVENTION:**

A number of barriers were identified by the workgroups including:

- The absence of a coordinating entity to move the agenda forward and keep players connected and motivated;
- The lack of knowledge about other coalitions and collaboratives in the region;
- Ageism and the need to expand the public's perception about aging;
- The need to create a prevention focus and agenda that will proactively engage the community; and
- The lack of education about fall prevention for the general public and for providers.

## **WHO ELSE DO WE NEED TO ENGAGE AND HOW?**

While a variety of groups and stakeholders are currently engaged in fall prevention, conference participants identified opportunities to engage new partners in creative and broad-based approaches. Through an asset-mapping exercise, participants identified a total of 762 associations/groups who could be engaged in this work, including not only the traditional professional and network affiliations (e.g., Area Agencies on Aging, public health networks, healthcare organizations), but also the informal associations and groups that exist in local neighborhoods and communities (e.g., arts groups, volunteer associations, faith groups). These associations/groups clustered into the following categories:

### Healthcare organizations/health insurers

- Medical groups, nursing homes, hospices, home health care agencies, public health, etc.
- Pharmacists, optometrists, physical therapists, occupational therapists and rehabilitation centers, parish nurse programs
- Health maintenance organizations

### Government agencies/public works

- Law enforcement, fire departments, emergency medical services
- City and urban planners, traffic and safety, parks and recreation departments, licensing, code enforcement
- Transit/para-transit authority

### Education systems

- Schools and school districts
- Parent and teacher associations
- Adult schools, community colleges and universities

### Business groups

- Developers, contractors, architects, local boards of realtors
- Chambers of commerce
- Home repair and handyman services, home builders associations, hardware stores
- Retirement/leisure communities, property managers, mobile home parks
- Fitness centers/health clubs

### Advocacy groups/networks

- AARP, Retired Public Employee Association, California State Employees Association, Retired Teacher's Association, Congress of California Seniors, Older Adult Policy Council
- Commission on the Status of Women, American Medical Association
- Neighborhood associations

### Voluntary associations

- Faith groups
- Arts groups
- Service clubs/civic groups, sports clubs, other volunteer associations (e.g., United Way, Senior Action Network)

### Media

- Fall prevention video
- Newspapers, radio, editorials
- Grocery bags/public awareness campaigns

### Philanthropy/foundations

- Grant writers
- Grantmakers in health and aging, local foundations

Participants also identified creative strategies to engage new groups and stakeholders. Key strategies included:

- Referral and information dissemination
- Community education and outreach
- Provider/industry education and training
- Advocacy activities including media advocacy
- Service delivery enhancement
- Funding/resource development
- Volunteer recruitment
- Data gathering and research
- Convening and community-building

The broad range of identified collaborative efforts suggests additional strategies that could be replicated in other communities to promote fall prevention.

## **Working Session Three**

### **Next Steps: Looking to the Future:**

The purpose of the third workgroup session was to identify action strategies for organizations, communities, researchers, advocates, government agencies, businesses, and other stakeholders.

### Identify community resources and expertise

- Inventory existing resources and services.
- Identify a community champion for safety.

*Build partnerships and create opportunities for broad collaboration*

- Create a statewide coalition to develop a shared vision for fall prevention in California.
- Engage local and statewide leadership to build political will to make fall prevention a priority throughout California.
- Incorporate fall prevention into existing strategic plans and programs.  
Team up with high schools to capture parents of graduating seniors as a volunteer work force.

*Support research activities to inform program and policy efforts*

- Link academic institutions to build research models/paradigms.
- Use existing databases for needs assessments.
- Collect data related to falls regarding housing, transportation, walk-ability, etc.
- Develop fall prevention quality indicators.
- Build on new and existing data and evidence-based models.

*Offer training and education opportunities*

- Develop curricula for health professionals.
- Collaborate on intervention research and training across the range of university campuses in the State.
- Develop curricula with occupational therapy, physical therapy, nursing, gerontology, and exercise science programs within university systems.
- Promote cross-training of related disciplines.
- Develop and maintain online training course materials.
- Develop a train-the-trainer approach with parish nurses, HUD service coordinators, care coordinators, etc.

*Advocate/develop policy activities to engage constituencies*

- Advocate for a designated coordinating entity at state level.
- Develop and use messages and data about cost-effectiveness of fall prevention.
- Advocate for fall prevention task forces in each county.
- Identify legislators interested in aging issues.
- Promote writing of letters to local and state agencies and policy-makers.
- Hold informational hearings with advocacy groups and community leaders.
- Create a resolution for fall prevention month.

*Explore collaborative funding resources and opportunities*

- Identify funding sources to create multi-disciplinary multi-site research teams.
- Advocate for home modification funding from community development block grants.
- Solicit funding from corporations selling products to seniors.
- Promote reauthorization of Older American Act funding for fall prevention.
- Share volunteers and staff as well as infrastructure and technical expertise.

Disseminate information to inform the community and provider organizations

- Add links on fall prevention to websites of organizations such as Alliance for Falls, Area Agencies on Aging, AARP, etc.
- Disseminate information on proven intervention models.
- Create communication systems and tools such as list serves, website links and an electronic clearinghouse.
- Conduct senior focus groups.  
Engage ethnic/cultural groups, women's groups, and men's groups.

Build media/public exposure to generate interest and inquiry into fall prevention

- Engage popular media (e.g., Redbook magazine, My Generation, talk shows such as Oprah Winfrey and Dr. Phil).
- Identify a celebrity spokesperson/champion for broad media exposure.
- Develop a statewide public awareness campaign and public service announcements that promote physical activity.
- Develop targeted, succinct messages.
- Identify and train local spokespersons.
- Seek media coverage "Expose" on 60 Minutes type show.
- Utilize ethnic media.

Organize convening opportunities for learning and cross-sharing

- Promote future conferences on fall prevention with a focus on cultural diversity, disability, older adults, etc.
- Convene a conference for physical activity instructors and for clinical providers of medicine and associated health disciplines.
- Develop culturally responsive training and technical assistance.

Promote changes in social norms

- Use the media to change social norms by educating the public on falls as a public health problem and prevention/interventions (exercise, medical review, home modification).
- Change attitude/resistance through messages such as "You are only one fall away from a nursing home."
- Provide incentives that encourage active living.
- Design competitions that promote aesthetically appealing as well as functional products for seniors.
- Promote universal design concepts.
- Educate and politicize baby boomers.
- Launch a media campaign to dispel myths on aging.

In summary, participants recognized the need for moving the fall prevention agenda forward by broad-based collaborative efforts. They recognized the opportunity to initiate education, training, research, and advocacy activities at multiple levels to achieve the fall prevention vision. The insights and recommendations can serve to "seed" planning efforts and provide the critical constituency and infrastructure for sustainable program and policy change.

## Concluding Remarks

### **PUTTING THE BLUEPRINT INTO ACTION—REACTIONS FROM PARTICIPANTS**

Closing Panel: Richard D. Della Penna, MD, Director, Kaiser Permanente Aging Network; Sandra K. Fitzpatrick, MA, Executive Director, Area 1 Agency on Aging; Nate Miley, County Supervisor, Alameda County; Colleen M. Campbell, MPH, Senior Injury Prevention Coordinator, Alameda County Public Health Department.

At the closing of the conference, four stakeholders from varied perspectives reflected on their views of putting the blueprint into action.

*Healthcare Industry* Dr. Della Penna identified implementation issues that concern large systems. In order to promise older adults they'll get the kind of care needed, we need to develop population-based measures but still provide customized care to individual cases. We need to develop strategies that are practical, that impact a large population, that we can afford and still have the resources to implement. We must start small, with incremental changes over time. He emphasized the importance of a vision in achieving our goal. Be focused on the goals you want to attain. He addressed social marketing issues: how do we get the message to others: the community; older adults; health care systems and to providers? He challenged participants by asking how we can use information to bring about change in our individual settings, and how we can apply knowledge to our spheres of influence.

*Human Services* Ms. Fitzpatrick emphasized the need for different approaches in different communities. We need to recognize rural-urban differences and the needs of remote communities where health resources are lacking. The problem of fall prevention is multi-faceted and our strategies must address multiple needs. A cookie-cutter approach will not work. We need cross-disciplinary strategies, including both early prevention and post-fall prevention. We must build support in our local communities. We need new partners and new approaches to reach those partners. We need better integration into our existing service paradigms. We need an interdisciplinary approach and a focus on caregivers. We need to speak as one voice, armed with compelling data, in order to design better access in our communities.

*Political Perspective* Supervisor Miley urged participants to start a movement around fall prevention in California. It is important to prevent falls among the elderly and when falls occur, to assure that the elderly are cared for. It is important to start a movement where younger people understand the ramification of falls so that they will take care of themselves and adopt lifestyles conducive to preventing falls. Many encouraging commitments were made at the conference regarding fall prevention and he urged participants to continue to network with one another. Many people across the State are involved in fall prevention. They can form a powerful mass movement for resources and system change despite the present budgetary crisis.

*Public Health Perspective* Ms. Campbell emphasized the importance of education, and of mentoring less experienced colleagues. Education is needed for the public including older adults. Individuals don't think about fall prevention until someone they know falls. We need to educate older adults in strategies for avoiding falls. Education is needed, for example, to teach older adults about interaction effects of over-the-counter herbal products and prescription drugs.

**CLOSING REMARKS** B. Josea Kramer, PhD, Associate Director for Education, Geriatric Research Education, Clinical Center (GRECC), VA Greater Los Angeles Healthcare System and Mary Ellen Kullman Courtright, MPH, Vice President, Archstone Foundation

Dr. Kramer and Ms. Kullman Courtright thanked the group for their participation and congratulated them on the creativity, energy and dedication demonstrated over the two days. They noted that their passion, their commitment and their inspiration were awesome and that this meeting is not the end, but is instead the beginning.

Many champions in the field of fall prevention came together at the conference to share their knowledge, share their expertise, and share their commitments. We were reminded of the terrible costs to quality of life when seniors fall. We were reminded of the tremendous and escalating burden to healthcare costs when seniors fall. And we were reminded that most falls are potentially preventable, through known interventions and proven strategies.

At the national level, the Centers for Disease Control and Prevention have made prevention of falls a major priority. At the State level, the California Department of Health Services, through the Injury Prevention Section, has addressed prevention of falls as an important priority. The medical community has recognized the importance of fall prevention and has established a guideline for prevention and management of falls, as well as quality of care indicators. At local community levels, many agencies serving seniors and health promotion programs address fall prevention in varied efforts.

We know a great deal about falls, the risk factors involved, and how to prevent falls. Now we need to assure that this knowledge is incorporated into practice and programs are made widely available to all seniors and others at risk for injurious falls. A tool-kit approach will be needed to implement varied strategies that will be effective in serving California's diverse communities.

Many expressed the view that a central clearinghouse/coordinating body is needed to share information, facilitate networking and encourage training. Training programs are needed to assure that those who work with seniors are well-equipped to educate elders and promote fall prevention efforts. Media efforts are needed to educate not only seniors but the general public, that falls are preventable with known strategies and programs. As individual advocates, we need to recognize multiple opportunities for addressing fall prevention in varied settings, in our private lives as well as in our professional roles.

The conference brought together many professionals and stakeholders in the work of fall prevention, reaffirmed knowledge regarding the nature of the problem and potential solutions, and proposed strategies to launch a statewide effort that can become a model for the rest of the country.

## **APPENDIX A: CONFERENCE PLANNING COMMITTEE**

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## **APPENDIX B: CONSENSUS STATEMENT OF THE PLANNING COMMITTEE**

### **Guiding Principles for Establishing a Statewide Fall Prevention Program**

1. Fall prevention should occur in the home, community and healthcare settings through the collaborative efforts of community-based organizations, healthcare organizations, researchers and policymakers.
2. A long-term commitment to reducing injurious falls involves changing provider behavior, as well as systematic changes in organizations, coalition-building and follow-up activities to promote new practices.
3. Fall prevention strategies also require changes in behavior of older adults. Communications and marketing are key strategies to increase public awareness.
4. A statewide prevention agenda should address the race/ethnic and cultural diversity of California populations, as well as differences based on region or rural-urban communities.
5. A research agenda for fall prevention should be supported.
6. Research must be translated into practice so that appropriate risk assessment occurs at each level of care (medical, rehabilitation, community) and appropriate interventions are tailored to individual needs. Policy and regulations should support basic competencies to assess risk and deliver primary and secondary prevention strategies.
7. The overall costs of injurious falls by older adults and the cost of prevention strategies to health and human services should be documented. Reducing healthcare costs from injurious falls will involve shifting resources to preventive activities. Some of this resource allocation will be cost neutral, entail better use of existing resources or require additional fiscal infusion.
8. Coordination and commitment across systems is necessary to realize savings from preventing injurious falls in older adults. The cost center that realizes savings may differ from the center that needs to invest in prevention or intervention activities. For instance, healthcare costs may be reduced by home modification activities performed by human service agencies.
9. Standards have been established in multi-factorial risk assessment and intervention; many effective interventions currently exist. Increasing universal availability to these effective interventions requires a three-fold approach: identifying services that are currently available; improving access and matching of need to services; and identifying additional needed resources.
10. There are additional ways to mobilize current resources toward improving fall prevention statewide. For instance, currently available training funds might support education of senior fitness practitioners.

## **APPENDIX C: REFERENCES**

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## **APPENDIX D: INTERNET RESOURCES**

Archstone Foundation: [www.archstone.org](http://www.archstone.org)

California Department of Health Services, Injury Control: [www.dhs.ca.gov/EPICenter](http://www.dhs.ca.gov/EPICenter)

Centers for Disease Control: [www.cdc.ncipc](http://www.cdc.ncipc) and [www.cdc.gov/ncipc/factsheets/falls.htm](http://www.cdc.gov/ncipc/factsheets/falls.htm)

National Alliance to Prevent Falls As We Age: [www.nsc.org/fallsalliance](http://www.nsc.org/fallsalliance)

National Center for Health Statistics: [www.cdc.gov/nchs/agingact.htm](http://www.cdc.gov/nchs/agingact.htm).

National Institute on Aging: [www.nia.nih.gov/health](http://www.nia.nih.gov/health)

National Resource Center on Supportive Housing and Home Modification: [www.homemods.org](http://www.homemods.org)

National Safety Council: [www.nsc.org/issues/falls](http://www.nsc.org/issues/falls)







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