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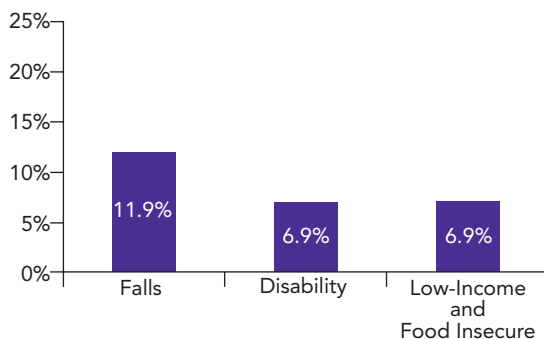
Falls, Disability and Food Insecurity Present Challenges to Healthy Aging

Steven P. Wallace, L. Crichel Molina and Mona Jhawar

Californians are living longer than ever before. A Californian who reaches age 65 looks forward to an average of 20.4 more years of life. The quality of those years is as important as their number. This policy brief profiles Californians age 65 and over who may experience a compromised quality of life due to falls, disability or food insecurity. This information can be used to improve policies and programs that can prevent these problems and better support older adults who already face them.

Exhibit 1

Multiple Falls, Personal-Care Disability, or Low-Income and Food Insecurity, Californians Age 65 and Over



Source: 2003 California Health Interview Survey

Being able to live independently is a key part of healthy aging for many older people. Falls, disability and food insecurity are surprisingly common among older Californians. Each can impair the ability of older people to live independently and have a good quality of life, reducing their chances for healthy aging.

Falls are the most common cause of injury-related deaths for the elderly and result in high rates of hospitalizations and emergency room visits. Of Californians age 65 and over, 11.9% fell more than once in the previous year (Exhibit 1).

Disability is defined here as when a person needs assistance or special equipment for personal-care tasks such as eating, dressing, bathing, getting out of chairs, moving around the house, or using the toilet. This type of disability can make it difficult to live independently. Seven percent of Californians age 65 and over report that they need special equipment or someone to help them with those personal-care tasks because of a health problem (Exhibit 1).

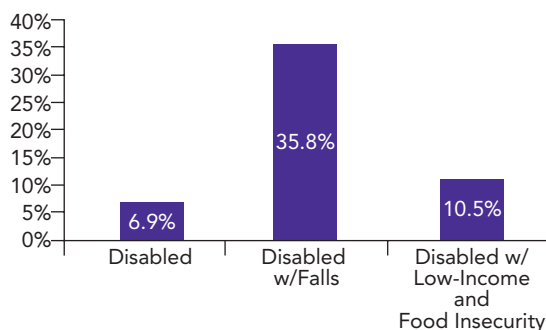


The California Wellness Foundation

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Exhibit 2

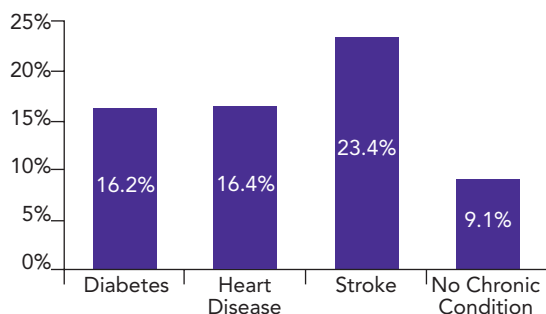
Californians with Disabilities Age 65 and Over Who Also Have Multiple Falls or Low-Income and Food Insecurity



Source: 2003 California Health Interview Survey

Exhibit 3

Percent with More Than One Fall Among Those with Selected Health Conditions, Californians Age 65 and Over



Source: 2003 California Health Interview Survey

Even if an older person has no health or physical problems, food insecurity—struggling to afford enough nutritious food—can imperil healthy aging. When older persons do not have enough money for food, their diets worsen and their risk of chronic diseases increases. One in every twelve older Californians were food insecure in the past year (Exhibit 1).

Having one challenge increases the chance of having others. For example, older Californians with disabilities are three times more likely than average to report multiple falls, and they have higher rates of food insecurity (Exhibits 1 and 2).

FALLS AMONG OLDER CALIFORNIANS

Over 450,000 older Californians, 11.9% of all adults age 65 and over, fell more than once in 2003 (Exhibit 1). In 2004, over 65,000 older Californians were hospitalized for nonfatal injuries from falls¹ and several times that number were treated in emergency rooms.

Nationally, about one-third of older adults fall each year, and of those who fall, 20-30% suffer moderate to severe injuries. The likelihood of severe consequences from falling increases with age. Adults age 75 and older who fall are four to five times more likely than their younger counterparts to be admitted to a long-term care facility for at least one year.²

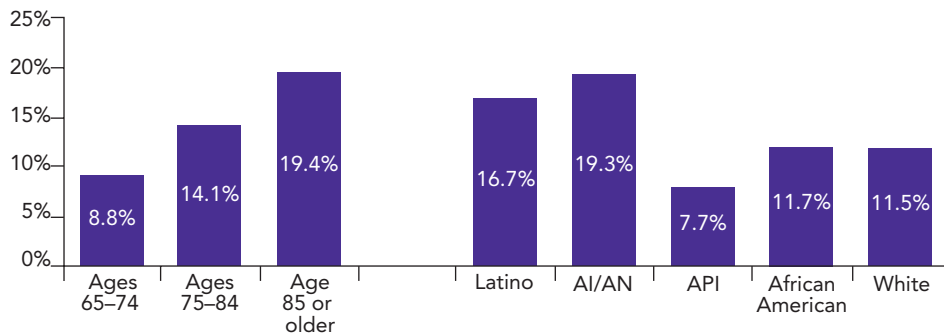
Even older persons who have fallen and not injured themselves may develop a fear of falling. This fear can lead to reduced social activity and isolation. Falls can affect one's ability to independently function in society and can compromise healthy aging.

Who Is Most Likely to Fall in California?

Older Californians with common chronic-health conditions are more likely to have multiple falls than others. Older persons who

Percent with More Than One Fall by Age and Race/Ethnicity, Californians Age 65 and Over

Exhibit 4



Notes: AI/AN refers to any mention of American Indian/Alaska Native, including multiple race/ethnicity. API refers to Asian and Pacific Islander.

Source: 2003 California Health Interview Survey

suffer from at least one health condition—like diabetes, heart disease or stroke—are almost twice as likely to have multiple falls (16-23% versus 9%, Exhibit 3).

In California, those aged 85 and over are more than twice as likely to have multiple falls than the youngest elderly (Exhibit 4). Similarly, adults aged 75-84 were much more likely to fall as those aged 65-74. Not only are falls most common among the oldest adults, but the oldest are also the most likely to suffer from injuries and even death as a result of their falls.³

Falls among the elderly in California differ by racial and ethnic group. Falling more than once is most common among elderly American Indian/Alaska Natives and Latinos (Exhibit 4). Multiple falls by English-speaking Latino seniors are similar to the non-Latino white rate (data not shown). This suggests that the higher rate of multiple falls among Latinos is caused by high rates among Spanish-speaking seniors.

Income is another factor associated with multiple falls among older Californians. Those with household incomes below the federal poverty level are more than twice as

likely to have multiple falls than those in the highest income households (Exhibit 5).

These are important findings because low-income elders also have the most access to care problems,⁴ which might affect treatment and recovery from falls.

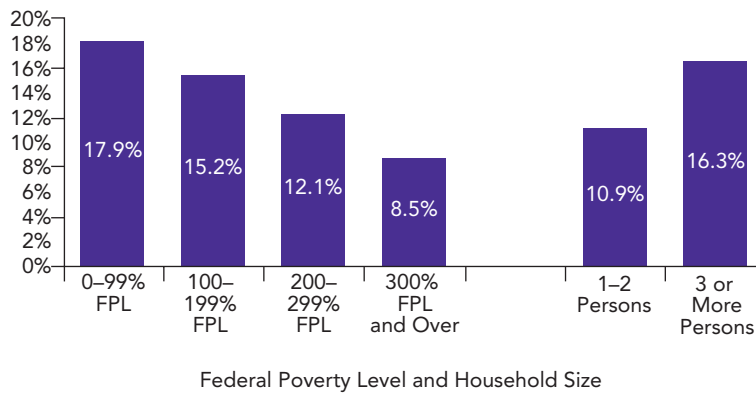
Finally, older Californians in households with three or more persons are more likely to have multiple falls than those in smaller households (Exhibit 5). Older adults who live alone have a similar rate of multiple falls as those who live in two-person households.

Other studies document that falling is also associated with a history of falls, muscle weakness, gait and balance deficits, use of an assistive device, visual deficits, arthritis, limitations in household activities (instrumental activities of daily living), depression, taking certain medications and cognitive impairment. Environmental conditions, such as poor lighting, uneven surfaces and clutter may also increase the risk of falls.⁵

The effects of each of the characteristics presented above (chronic conditions, age, race/ethnicity, poverty and household size) are independent of the others. For example,

Exhibit 5

Percent with More Than One Fall by Federal Poverty Level and Household Size, Californians Age 65 and Over



Source: 2003 California Health Interview Survey

older adults with chronic conditions have more falls at all ages, and more older Latinos have multiple falls than non-Latino whites regardless of income.

What Can We Do to Prevent Falls?

There are many proven strategies for preventing falls among older adults.⁶ Interventions targeted to older adults with moderate to high risk can reduce falls by over 30%. Such programs include:

- Regular physical activity incorporating cardio-vascular endurance, muscular strength, flexibility and/or balance
- Medication review when older adults take four or more medications or any psychoactive drugs
- Eye exams at least once a year
- Home assessment and modifications that improve lighting, reduce hazards (such as clutter), and add supportive features (grab bars for example).

The data for California suggest that priority populations for falls prevention should include those with chronic health conditions, those who are at older ages,

American Indian/Alaska Natives and Spanish-speaking elders, and those with the lowest incomes. Since older adults in larger households are more likely to have multiple falls, preventive efforts may need to include household members in addition to older adults.

State policy can foster a better understanding of the importance of falls by making Office of Statewide Health Planning and Development emergency-room discharge data on falls easily accessible. The state can also support public education and awareness campaigns for older adults and their families, and professional education for health care providers about how to prevent falls by older adult patients. Medi-Cal reimbursement for falls-specific assessments would assist low-income elders. And programs such as the Multipurpose Senior Services Program that target elders with disabilities should routinely include falls assessments and intervention services. California-wide collaborative organizations, such as www.stopfalls.org, play an important role in keeping the issue visible, and in disseminating information that is useful for policy and practice.

THE CHALLENGE OF DISABILITY

There are 260,000 older Californians, almost 7% of all older adults, who need assistance or special equipment for daily personal care activities (Exhibit 1). Personal care activities are those that a person must be able to carry out in order to live independently, including eating, dressing, bathing, getting out of chairs, moving around the house, or using the toilet. The need for assistance can be the result of reduced mobility due to illnesses such as arthritis or heart disease, injuries or life-long conditions.

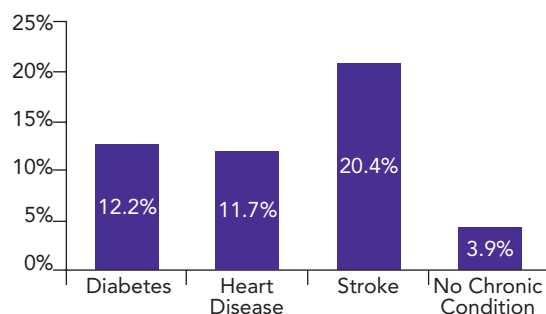
Older adults with these personal care disabilities face potentially severe challenges as they age, ranging from difficulty in accessing health care to a heightened risk of nursing-home use. Special equipment such as a walking cane or a raised toilet, as well as assistance from another person, can help older adults with disabilities remain in their own homes.⁷

Who Is Most Likely to Have a Personal-Care Disability in California?

Older adults with at least one chronic health condition have much higher rates of disability than those with no chronic conditions. Older

Percent with Personal Care Disability Among Those with Selected Health Conditions, Californians Age 65 and Over

Exhibit 6



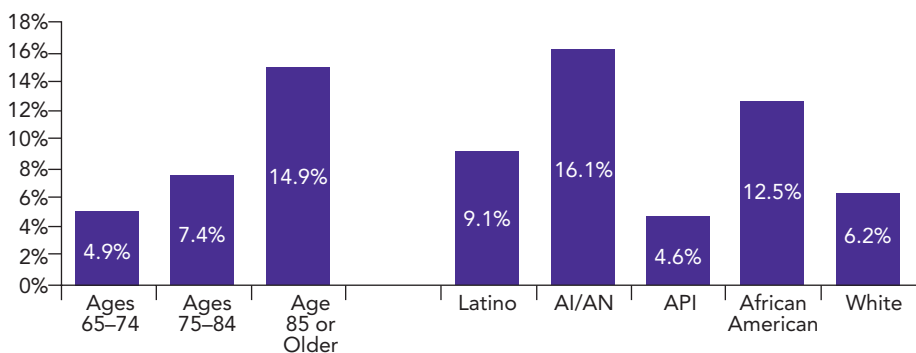
Source: 2003 California Health Interview Survey

Californians with heart disease or diabetes are three times more likely to have a personal-care disability as those with none of the three conditions. Those with a stroke have five times the rate of needing help with personal-care activities (Exhibit 6).

Personal-care disability rates rise rapidly with age. Californians age 85 and over are three times more likely to have a disability as those ages 65-74 (Exhibit 7).

Percent with Personal Care Disability by Age and Race/Ethnicity, Californians Age 65 and Over

Exhibit 7

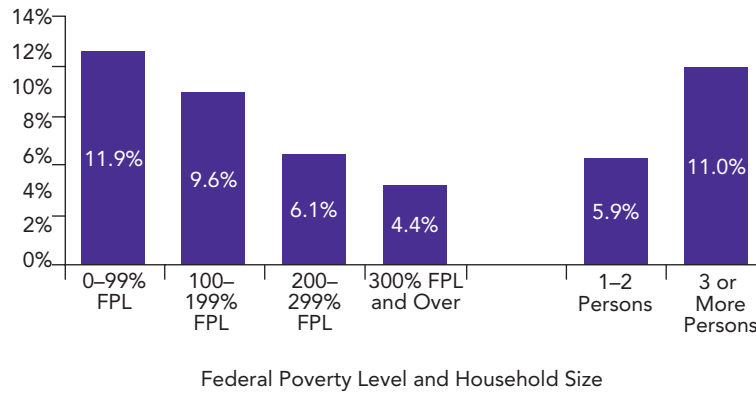


Notes: AI/AN refers to any mention of American Indian/Alaska Native, including multiple race/ethnicity. API refers to Asian and Pacific Islander.

Source: 2003 California Health Interview Survey

Exhibit 8

Percent with Personal Care Disability by Federal Poverty Level and Household Size, Californians Age 65 and Over



Source: 2003 California Health Interview Survey

Disability rates are highest for American Indian/Alaska Native (AI/AN) elders, followed by older African Americans and Latinos (Exhibit 7). English and Spanish-speaking Latinos report similar rates of personal-care disability.

Those with lower incomes are also more likely to have a personal-care disability in old age. The disability rate among older Californians with poverty-level incomes is almost three times that of older adults with incomes of 300% and above the federal poverty level (FPL). This may be the result of the harmful effects of life-long poverty (Exhibit 8).

Family size is also associated with level of disability (Exhibit 8). Older Californians living with at least two other persons (in a three-person family) are almost twice as likely to report a personal-care disability. It is possible that this is the result of older persons moving to live with family members who are unable to assist them.

The effects of each of the characteristics presented above (chronic conditions, age, race/ethnicity, poverty and household size) are independent of the others. For example, older adults with chronic conditions have higher rates of disability at all ages, and more older African Americans have a personal-care disability than non-Latino whites, regardless of income.

What Can We Do about Personal Care Disability Among Older Adults?

In California, multiple public programs fund services to help elders who have disabilities. The state has a legal obligation to help those who rely on state programs to remain living in the community if they wish.⁸ But these programs are part of a severely-fragmented system where a lack of access to services often leaves older persons without the assistance they need to be able to remain at home and in the community. The state's responsibility for long-term care is fragmented among three departments—health, social services and aging. Administrative integration, as recommended

by the Little Hoover Commission in 1996, would help reduce fragmentation. Increasing the Medi-Cal asset limit, increasing the number of Programs of All-Inclusive Care for the Elderly (PACE), and creating a one-stop entry for all long-term care—such as exists in the state of Washington—would all help increase the access of older persons to needed community care.⁹

Policy interventions can also help reduce or delay disability. Promoting physical activity and reducing chronic diseases are well-documented ways of reducing the onset of disability. The CDC's Guide to Community Preventive Services offers a number of policy tools, such as creating or enhancing access to places for physical activity through programs or zoning, and providing disease management programs for diabetes.¹⁰ There are also a growing number of evidence-based programs that impact conditions that can lead to disability. For example, the City of LA Department of Aging's Active Start program increases physical activity among at-risk elders.¹¹

FOOD INSECURITY HINDERS HEALTHY AGING

In 2003 there were 260,000 older Californians with incomes under twice the federal poverty line (less than 200% FPL) who reported that they have a difficult time reliably putting enough food on the table. This means that 20% of older persons with limited incomes are "food insecure".¹² Those who are food insecure have times when they cannot afford to put food on the table, have to forego other basic needs to do so, or experience hunger.

Food insecurity has serious health consequences for older adults. Three of the most common chronic diseases—hypertension,

diabetes and coronary heart disease—can be prevented, and in some cases treated by a healthful diet. Food insecurity is associated with poorer health, and food-insecure elderly persons have lower nutrient intakes than those who are food secure.

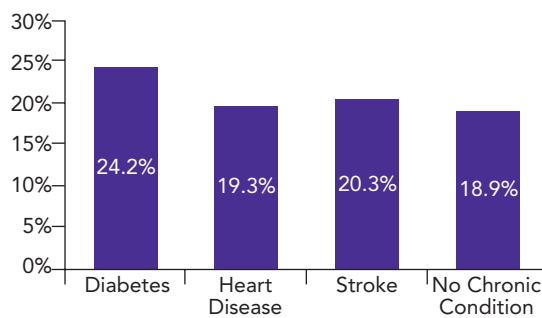
Having inadequate diets can aggravate health conditions. While food insecurity is most often the result of financial limitations for younger populations, among older adults food insecurity can also be caused by functional limitations that prevent them from shopping or being able to prepare healthy meals.

Who Is Most Likely To Be Food Insecure Among Older Californians?

Food insecurity is a common problem regardless of health status (Exhibit 9) and can complicate the treatment of these conditions in a number of ways. First, many of the medications that older adults take for chronic conditions are not supposed to be taken on an empty stomach. Second, those with food insecurity must sometimes choose between purchasing food or medicines, making food-insecure older adults almost twice as likely to delay or skip purchasing

Percent Food Insecure Among Those with Selected Health Conditions, Low-Income Californians Age 65 and Over

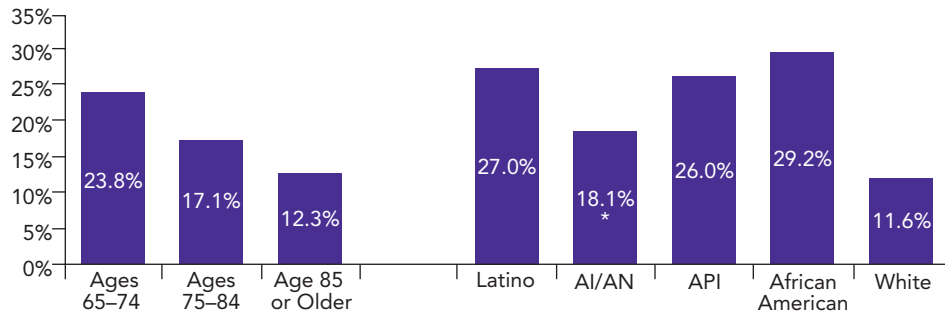
Exhibit 9



Source: 2003 California Health Interview Survey

Exhibit 10

Percent Food Insecure by Age and Race/Ethnicity, Low-Income Californians Age 65 and Over



Notes: AI/AN refers to any mention of American Indian/Alaska Native, including multiple race/ethnicity. API refers to Asian and Pacific Islander.

*Unstable estimate.

Source: 2003 California Health Interview Survey

prescriptions as others. Third, specific dietary restrictions for those with chronic conditions are more difficult to follow.

It is particularly concerning that almost one-quarter of low-income older adults with diabetes report food insecurity—a group that has the most difficult dietary requirements. Adults with diabetes living in food-insufficient households have been shown to have greater risk of complications from their diabetes and higher utilization of medical care.

Food insecurity declines with age among older Californians, although even in the oldest age group one in six low-income elders is food insecure (Exhibit 10). Food insecurity is also most common among racial and ethnic minority elders. Most minority groups are at least twice as likely to report food insecurity as non-Latino whites (Exhibit 10).

Food insecurity is most common among the lowest-income elderly Californians and

among those that live in larger households. Nearly 30% of older adults with incomes under the poverty level are food insecure, twice the rate of those with incomes between the poverty line and two-times poverty (Exhibit 11). In both income categories, racial and ethnic minority elders have higher rates of food insecurity, suggesting that there are additional causes of their food insecurity beyond income.

Larger families with low-income elders are also more likely to be food insecure (Exhibit 11). In about half of the larger families the elder is living with extended family (without their spouse). These low-income families appear to be particularly challenged in obtaining sufficient food.

The effects of each of the characteristics presented above (chronic conditions, age, race/ethnicity, poverty and household size) are independent of the others. For example, older adults with chronic conditions have higher rates of food insecurity at all ages, and

all ethnic-minority older adults are more food insecure than non-Latino whites regardless of income.

What Can We Do About Food Insecurity?

Food insecurity is a national problem, but California can play an important role in reducing the problem. State and local policymakers have multiple tools to reduce food insecurity among older persons—increasing Supplemental Security Income payments (SSI), increasing the Older Americans Act (OAA) services or other measures.

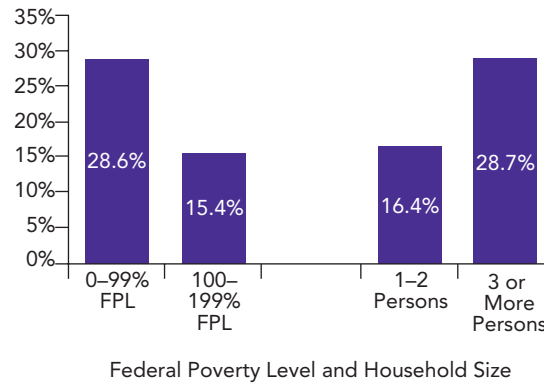
California's SSI program is supposed to include the cash value of food stamps that recipients would otherwise be eligible for. SSI payments include a federal and a state component. While the federal payment has kept pace with inflation, California's program has lagged substantially for the past 15 years.¹³ Restoring SSI to its earlier value would help older persons pay for their basic needs so that they are less likely to have to make trade-offs between food, housing and other basic needs.

The Older Americans Act funds nutrition programs for the elderly, with an emphasis on the most disadvantaged. These congregate- and home-delivered meal programs aim to improve the nutritional status of older persons, but have been underfunded for many years and reach only one-third of needy elders.¹⁴ Additional state or local resources for these programs would help address the nutritional needs of food-insecure elders.

Ensuring that medical costs do not squeeze out resources for food would also reduce food insecurity. Nationally, low-income elders

Percent Food Insecure by Federal Poverty Level and Household Size, Low-Income Californians Age 65 and Over

Exhibit 11



Source: 2003 California Health Interview Survey

without Medicaid (Medi-Cal in California) spend 25% of their incomes for out-of-pocket health care costs, compared to 11% for those with Medicaid. Assisting low-income elders reduce their medical-care spending would have a direct impact on their ability to buy food.

PROMOTING HEALTHY AGING: POLICY APPROACHES TO REDUCING FALLS, PERSONAL CARE DISABILITY AND FOOD INSECURITY

Over one-third of low-income older Californians (35.3%) experience one or more of these challenges to healthy aging. All three challenges share common elements. Each becomes more common with lower incomes, diabetes, among some racial and ethnic minorities, and is more common among older persons in larger families.

These data suggest that reducing diabetes and poverty are effective primary prevention targets—reducing those problems is likely to

reduce all three challenges to healthy aging detailed here. Policies that promote healthy nutrition and physical activity can promote healthy aging by reducing diabetes and its impact on falls, disability and food insecurity.¹⁵ On the other hand, delaying cost-of-living increases for income-support programs, such as SSI, is likely to increase these threats to healthy aging.

Individual-level approaches to prevention include more education and awareness about fall prevention, assistive technologies and modifications for those with disabilities, and nutritional information for the food insecure. Health care providers can educate and monitor these factors among their older patients, particularly those who are at high risk. Similarly, accessibility to services such as affordable physical activity programs and rehabilitative services is key.

For those who already face the challenges of falls, disability or food insecurity, outreach and services should pay particular attention to older Latinos, American Indian/Alaska Natives, African Americans and those in larger families. These groups are the most likely to encounter the challenges to healthy aging. They would especially benefit from help in managing the challenges through the expansion and improvement of existing services, and the creation of new programs for these high-risk groups.

Each of the challenges to healthy aging is a risk for the others. For instance, disability increases food insecurity because functional limitations can affect one's ability to prepare meals. Food insecurity can indirectly increase falls. If an older person suffers from an inadequate diet, their physical strength may decline, leading to falls. This makes it important to consider the commonalities across these threats to healthy aging so that the common risks among them can be addressed.

Over the next 30 years the baby-boom generation will enter old age and the number of older persons in California will double. State and local policymakers need to address the challenges to healthy aging now as an investment in both the well-being of current older persons, and the costs and well-being of the coming generation of elders.

Data Source

The analysis and publication of this policy brief was funded by a grant from The California Wellness Foundation. The findings are based on the 2003 California Health Interview Survey (CHIS 2003). CHIS 2003 completed interviews with over 8,600 adults age 65 and over from every county in California. Interviews were conducted in English, Spanish, Chinese (Mandarin and Cantonese), Vietnamese and Korean.

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Notes

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- 2 CDC, National Center for Injury Prevention and Control.
- 3 Ibid.
- 4 Auchincloss AH, Van Nostrand JF, Ronsaville D. Access to health care for older persons in the United States: personal, structural, and neighborhood characteristics. *Journal of Aging Health*. 2001. 13:329-54.
- 5 Rubenstein LZ. Falls in older people: epidemiology, risk factors and strategies for prevention. *Age and Aging*. 2006;35 Supplement 2:ii37-ii41.
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