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## It Takes a Village... to Prevent a Fall

by *Melissa Jones, Esq., Health Policy Analyst*

All of rural California, and particularly the Redwood Coast Region (Del Norte, Humboldt, Mendocino and Trinity counties), has an increasing population of older residents who are at risk of preventable falls. In fact, the Redwood Coast Region has recorded a higher percentage of falls among seniors than California as a whole (see table 2). Fall prevention means that the home must be safe, but also that the community environment must be navigable so people are encouraged to venture outside and be active. Additionally, nutritional and medical needs must be assessed to ensure that older people are healthy and strong. Current strategies addressing fall prevention must remain in place, and in some cases, expanded. In locations where there are no direct services for seniors, the community should seek funding and programs could be developed by Area Agencies on Aging or County Public Health Departments.

Fall prevention can potentially involve **the entire community, not just those who deliver services to the elderly.** Participants can include:

- Nutritionists to assess diet and health;
- Pharmacists to aid in medication management and avoid drug combinations that could increase the risk of falling;
- Physicians, nurse practitioners, physician assistants, and nurses who can conduct risk assessments and monitor patients' conditions and medications;
- Physical and occupational therapists to help with balance and mobility;

- City and county planning departments to encourage universal design of new homes and public use facilities, as well as appropriate home modifications;
- City and county public works departments to assess frequent travel routes for seniors and make repairs on hazardous walkways;
- Friends, neighbors, and families of seniors to watch for possible risk factors and provide support and encouragement; and
- Everyone who uses sidewalks and trails can report areas that could be risky for those who have limited mobility.

### Redwood Coast Demographics

The number of people 65 and over residing in the Redwood Coast Region is projected to grow in the next ten years. Table 1 shows the current and projected percent of total population over the age of 65 for each county, with the greatest increases in Humboldt and Mendocino counties.

**Table 1: Percent of Population that is 65 and Older**

County	2010	2020
<b>Del Norte</b>	13.2%	16.4%
<b>Humboldt</b>	13.0%	18.4%
<b>Mendocino</b>	15.3%	20.4%
<b>Trinity</b>	20.5%	24.3%

Source: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 2000-2050*. Sacramento, CA, July 2007. <http://www.dof.ca.gov/research/demographic/data/race-ethnic/2000-50/>

Falls by seniors in the Redwood Coast Region are higher than for the rest of the state. Humboldt County had a higher percent of senior residents who reported falling more than once in the past year than nearby rural counties or the state as a whole. For California and most of the counties in the Redwood Coast Region, the percentage of the population who has fallen has increased since between 2003 and 2007.

**Table 2: Seniors who fell to the Ground More than Once in Past 12 Months**

Region	2003	2007
California	11.9%	14.5%
Humboldt	14.8%	18.3%
Mendocino*	11.3%	16.8%
Trinity/Del Norte**	18.6%	17.9%

Source: California Health Interview Survey 2007.

\*\*data aggregated with 5 other counties

\* In 2003 Mendocino had 11.3% report a fall more than once in past 12 months, but data unreliable/statistically unstable meaning cell has not met the criteria for a minimum number of respondents needed AND/OR has exceeded an acceptable value for coefficient of variance.

Interestingly, although there were more seniors falling in the region, those falling were less likely than others in California to receive medical care because of the fall.<sup>1</sup> This could be for a number of reasons: the fall may not have been serious enough to merit a medical visit, or the person may chose not to seek medical care or have found it more difficult to access medical care. By not visiting the doctor, an important opportunity for fall prevention has been missed. An evaluation by a medical provider can reduce the risk of future falls and injury.<sup>2</sup>

Falls and accidents may result in fractures, the most common injury, or in severe cases, death.<sup>3</sup> These falls

also are costly, not just because of the fall itself and any resulting care but because of any complications (i.e., disability, increased risk for future falls, loss of independence). On a national level, the direct costs from falls exceeded \$19 billion in 2000.<sup>3</sup> This cost, both direct and indirect, may rise to \$54.9 billion (in 2007 dollars) by 2020.<sup>4</sup> Table 3 shows the local cost of falls that required hospitalization in 2004. The two counties with the highest cost were Humboldt and Trinity counties.

With additional emphasis, falls are avoidable and therefore their costs to the community and the individual are avoidable as well. In order to reduce the cost pressure on the community and keep seniors independent and healthy, increased efforts need to be directed towards fall prevention and awareness.

**Build a Regional or County Coalition**

In every county, there are numerous organizations that work on senior fall prevention strategies such as home modification, balance classes, and medication management. Several groups work on different initiatives that strive to prevent senior falls. These efforts can be coordinated through a coalition to create a powerful and effective tool.

Some rural counties have formed local “stop falls” coalitions that are grant-funded and create partnerships among senior centers, telehealth centers, adult day care, county health and human services departments, transit services, in-home support services, hospice, physical therapists, and interested community members. Many of the coalitions received funding for a needs assessment that surveyed seniors to discover what services are desired or providers to determine what services are offered. From the needs assessment,

services are coordinated to ensure that the partners work together to address all aspects of fall prevention.

Nevada County is a rural county that has an exemplary fall prevention coalition. The

**Table 3: Cost of Hospitalized Falls, 2004**

County	Number of Persons (Age 60+) Hospitalized Due to a Fall	Mean Cost of Hospitalization Due to a Fall
Del Norte	104	\$ 24,395.18
Humboldt	311	\$ 41,325.57
Mendocino	278	\$ 29,162.26
Trinity	53	\$ 39,920.57

Source: Adapted with permission from the Fall Prevention Center of Excellence. <http://www.stopfalls.org/data.shtml>. Accessed August 18, 2010.

coalition attributes its success to continuous active outreach, awareness through Fall Prevention Awareness Week, a vendor fair and creative partnerships that have funded additional efforts. For example, it has partnered with the mental health department and used a depression screening for homebound seniors that can also serve as an opportunity for fall prevention or risk assessment. To address the medical aspect of falls prevention, a grant through Catholic Healthcare West allows the coalition to work with physician offices to create provider awareness of fall specific concerns.

Mendocino County was able to complete their needs assessment for a fall prevention coalition that would cover Mendocino and Lake counties. Unfortunately, the program did not receive additional funding, but the Area Agency on Aging is using a task committee within its advisory council to address some of the needs identified in the planning stage. Mendocino County has been able to integrate balance and nutrition classes into its senior center activities, and also has participated in Fall Prevention Awareness Week. The Area Agency on Aging has informally partnered with In-Home Supportive Services (IHSS) to identify at-risk seniors and perform fall risk assessments and outreach to IHSS clients.

At a minimum, interested parties who may address senior falls should unite to promote Fall Prevention Awareness Week, which this year, begins on September 19, 2010, and occurs the first week of autumn every year.

### **Encourage Better County and City Planning**

The health of the baby boomer and senior population depends on an environment that allows maximum mobility and encourages an active lifestyle. Counties and cities should plan for the increasing aging population and provide incentives for built environments that help mitigate fall risks.

Outside the home, new buildings and walkways should be assessed with all people in mind, but also specific to seniors. Many city planning departments examine what routes seniors may take to get from point to point and make sidewalk adjustments or repairs accordingly. Additionally, benches can be placed along frequent routes to allow people to rest throughout their walk.

Old routes must be repaired or altered so they can be accessed by all. Arcata has a bike and pedestrian plan that examines walkable areas. The Humboldt County Association of Governments drafts a Regional Pedestrian Plan that assesses the condition of walkways in cities and unincorporated areas of the county. The plan identifies target areas and recommends improvement projects. Pedestrian plans such as this are helpful to identify needs and provide data for grant funding.

More densely populated areas of our rural region could consider writing a specific senior walkability plan. Such assessments have been done in large cities, such as New York's "Safe Routes for Seniors."<sup>5</sup> Although these assessments are not feasible for all areas of the region, areas where the population is generally older and more populated could consider this option.

Many city public works departments rely on public input about tripping hazards on sidewalks. Citizens, regardless of age or ability, should report uneven pavement, large cracks, blocked sidewalks, or other tripping hazards to their public works department for repair.

### **Promote Universal Design**

Universal design of new homes would allow ease of use for all people, regardless of age or physical capacity. This is different from Americans with Disabilities Act standards of "accessibility" which only addresses those with certain needs. Examples of universal design include wide hallways for easy maneuvering, lower cabinet placement, and lever style door handles instead of traditional round doorknobs.

In the Redwood Coast Region there has been much discussion about green design, and universal design should also be discussed and promoted regionally. Area 1 Agency on Aging received some funding to host a universal design conference in 2011.

New homes should be built to reduce barriers and obstacles that would create falling hazards for those at risk. Use of universal design features should be promoted through:<sup>6</sup>

- incorporation of universal design features in the contract bidding process;
- incentives, such as fee reductions, for contractors who use universal design;

- low interest loans for home modifications; and
- tax credits and deductions for new homes and home modifications.

Besides the city and county wide supports for Universal Design, local community colleges that offer classes in engineering and construction technology should integrate Universal Design concepts into coursework at a minimum. Preferably, they could offer Universal Design certification.

### **Encourage State Supported Activities**

Although walkability has been integrated into the State Plan for Aging, the California Department of Aging has not completed the model pedestrian audit that the State Plan had hoped it would disseminate to the Area Agencies on Aging by September 2010.<sup>7</sup> Rural communities should push for this model audit to be completed since it could help target funding and local support for activities to reduce senior falls.

The StopFalls Network California is a statewide network of organizations and providers that promotes falls prevention awareness and strategies. It works to inform regulations, advocate for greater funding, and share best practices.<sup>8</sup> To ensure that rural community issues and concerns are represented in the StopFalls Network California, local organizations who are not already participating should consider joining.

### **Support Nonprofit & Provider Strategies**

Many different fall prevention programs have been tested by the Center for Disease Control (CDC), and in some instances features have been used by local Area Agencies on Aging, senior centers and adult day health centers.<sup>9</sup> Strategies generally include a mix of the following:<sup>10</sup>

- Fall risk assessments
- Medication review and management
- Home visits and assessments
- Home modification for seniors over 65
- Access to physical and occupational therapists
- Wearing the correct footwear
- Reducing tripping hazards in the home
- Promoting strength and balance classes such as STRONG/Better Balance<sup>11</sup>
- Vision assessment

Community centers, churches, or other public gathering places could conduct balance classes and share strategies with other communities that do not have the manpower or funds.

### **Ensure Provider Awareness**

Provider awareness of fall prevention is important for all, but it is even more important in communities without access to specific programs. At times, the clinical setting may be the only opportunity for fall awareness and intervention. Providers should be encouraged to discuss fall prevention with all seniors. Online resources through the CDC or stopfalls.org<sup>12</sup> can be simple and cost-effective ways for providers to educate themselves and find materials for distribution.

Providers should also be aware of the groups of people who are at a greater risk of falling and target resources to those patients. According to UCLA's California Health Interview Survey, risk factors for falls include chronic health conditions (such as diabetes or heart disease), increased age (over 85), American Indian/Alaskan Natives and Spanish-speaking elders, and low income elders.<sup>13</sup> Seniors with any of these risk factors were more likely to have multiple falls.

Anyone in the community could help track falls. A community form could be created to identify seniors who have fallen and the possible reasons for the fall. The form could be used by the regional coalition or other provider to follow up appropriately. Nevada County has implemented a program in which first responders complete a form for all falls that do not result in admission to a hospital. The form requires a brief assessment and patient consent for physician follow up.

### **Build Senior Villages**

The Arcata Elder Village is a local example of interested seniors who have formed to discuss nonprofit eldercare options in Arcata. Although Arcata Elder Village is just in the initial planning stages, similar "villages" occur all over the country and can be particularly helpful for rural seniors to stay in their homes safely. For some villages, interested seniors pay a membership fee to access a wealth of resources that range from transportation to yard maintenance. Some

services are provided on a volunteer basis, which fosters community involvement with the elderly. The villages may also offer balance classes and social opportunities to ensure that seniors stay active.

### Gather Additional Data

In order to meaningfully address baby boomer and senior health, there is a need for more data about location of falls, reasons for falls and costs. Falls are increasing among seniors, but there is a lack of data about where the falls are occurring and what is causing the falls. More information is critical in rural communities for prevention efforts. The cost of hospital treatment is easier to obtain and follow, but costs such as rehabilitation, skilled nursing or in-home care, or work loss are difficult to track. Data can be gathered at several points: through UCLA's California Health Interview Survey, hospitals, emergency departments, and nursing homes.<sup>14</sup> Methods that link data from all the sources of the fall would be key to understanding the true costs of falls and track trends.<sup>14</sup> Consistent data collection standards and use of special billing codes would be beneficial.<sup>2,14</sup>

### Endnotes

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### Conclusion

Senior falls are a problem in the Redwood Coast Region. Falls are largely preventable, and prevention is less expensive than the later costs associated with falling. Both national and local data suggests that hospitalized falls are expensive. Related costs, such as loss of independence and further treatment are harder to measure, but likely to be significant. The rural community is aging, and the economic future is linked to assuring our community is senior ready.

Although there are considerable efforts being made by various providers, much more can be done. Many senior residents of the area live at home and prefer to continue to “age in place.” It is important to focus on the quality of life for seniors and how people live, play, and move through their daily tasks. Medical needs are the obvious connection to fall prevention, but also ensuring that the greater community is safe for older residents. Roads and streets must be safe and level to promote walking and other forms of daily activity. Residences must be built to allow seniors and baby boomers to age within their own homes safely, without fear of falling or addressing expensive modifications.

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### Join us in collaboration...

CCRP welcomes opportunities to collaborate with community partners for more in-depth research on this topic.





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