FALLS:
two takes on an important subject

The Eye of the Storm
as seen by Dr. David Foot

Falls are the most frequent cause of injury-related hospitalization for this country's seniors and already cost Canadian taxpayers three billion dollars every year, according to the BC Injury Research and Prevention Unit. Given that the percentage of persons over the age of 80 is expected to double over the next 20 years — and that the number of falls and fall-related injuries will increase commeasurably — this is an emerging crisis with profound implications for the health care sector.

Of particular concern is the issue of pre- and post-occupancy falls in the long term care setting. The statistics are frightening. Fifty percent of all long term care admissions are fall-related. Thirty to fifty percent of residents living in long term care homes fall each year, with 40 percent of these residents falling twice or more. Ten percent of all falls in long term care homes result in serious injury.

What It All Means

To really come to grips with the magnitude of the problem, it is important to not only look at the supporting statistics and underlying demographics, but also the policy and economic implications of an almost exponential increase in the number of falls after the age of 80 years and the potential impact of these falls on the quality of life and care of residents in long term care.

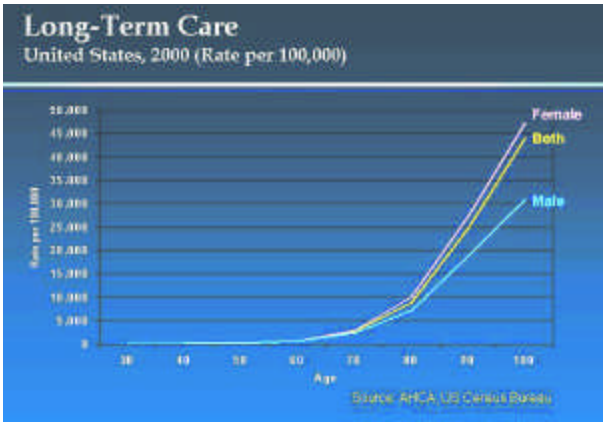
by Tracey Coveart, charts by Gerald Bierling

Tracey Coveart is co-editor of Long Term Care *magazine. She spoke with Dr. David Foot recently on this important subject. The charts were provided by Gerald Bierling, who teaches research methods and statistics in the political science department at McMaster University, and provides research assistance to companies and organizations (gbierling@cogeco.ca).*

Startling Statistics

- 40% of people over the age of 75 fall at least once a year
- Falls are:
  - the most common cause of injury
  - account for 78% of injury-related deaths
  - are the sixth leading cause of death for seniors
- 50% of long term care admissions are fall-related
- 30-50% of long term care residents fall each year and, of these, 40% fall twice or more
- Approximately 10% of falls in LTC result in serious injury, including up to 5% resulting in bone fractures
- Women are three times more likely to be hospitalized for a fall injury than men
- 40% of falls requiring hospitalization involve hip fractures and fewer than 15% of LTC residents who sustain a hip fracture regain pre-injury functioning ambulation status

Source: BC Injury Research and Prevention Unit Tools Repository at the Centre for Community Child Health Research in Vancouver, BC; (604) 875-3776; e-mail injury@cw.bc.ca.



Best-selling author of *Boom, Bust and Echo* and award-winning professor of economics at the University of Toronto, Dr. David Foot is a highly acclaimed, outspoken (and sometime controversial) demographics expert with a particular focus on Canada's aging population and its effects on economic performance and policy. The falls crisis, he says, is something that we cannot afford to put off. It is not something that we will begin to witness over the next 20 years. It is happening now and it needs to be addressed.

The reason that accidental falls are so important at this moment, says Foot, is the great number of people born in the '20s. A person born in 1920 when economic times were excellent is 85 years old today and one born in 1929 — just as the stock market crashed — is now 74. "It is very

Intervention Strategies for Reducing/Preventing Falls

The initiatives listed here were used in the *Stepping In: Long Term Care Collaborative Falls Prevention Project*, which was a joint effort between the British Columbia Injury Research and Prevention Unit (BCIRPU), the Adult Injury Management Network (AIMNet) at the University of Victoria, the Institute on Health of the Elderly, University of Ottawa, and the School of Nutrition and Dietetics at Acadia University, Nova Scotia. The purpose of the project was to reduce falls and fall-related injuries among long term care residents through positive collaboration between residents and caregivers.

Environmental Initiatives

In resident bedrooms/bathrooms

- adjust bed height
- place falls mats by bedside
- install bed poles
- install portable/permanent ceiling lifts
- attach Tabs alarm to beds/chairs
- rearrange furniture to reduce clutter
- remove scatter mats
- apply adhesive strips in front of sinks
- install call bells with yellow pull cords in bathrooms

In common areas

- renovate flooring (remove carpet and install linoleum)
- use non-glare floor wax
- post direction signs for elevators
- put color bands across doors to reduce wandering
- enlarge door handles
- install secure doors at all exits
- attach televisions to stands
- raise height of lounge chairs
- put brakes on wheels of kitchen/serving carts

Outside

- designate handicap spot(s) in parking lot
- put rough surface over smooth concrete on sidewalk
- fill cracks in walkways

Assistive Devices Initiatives

- helmets
- hip protectors
- non-skid socks
- personal alarms attached to clothes
- positioning belts
- motion sensor alarm systems
- mechanical lifts

Assessment and Individualized Care Planning Initiatives

- fall risk education and supervision
- fall risk assessment on admission, condition change or after a fall
- orange dot system to identify residents at high risk for falling (could be any recognized symbol by a door and distinctive coloured poster in room with falls prevention interventions)
- Falls Prevention Resident Safety Checklist (as part of Fall Risk Assessment Policy) documentation of the fall prevention strategies for each resident on a Resident Safety Checklist Board located in the resident's room
- safety plan checklist placed in bathroom of residents who are at high risk
- develop, review and modify a fall risk assessment tool
- post-fall assessment (to determine contributing factors, including medications, fatigue, diet, restraints, transfers) followed by family education
- two-bed sensor alarm pads
- bathroom scheduling
- Snoezelen relaxation training
- frequent family visits, use of sitter

Policy/Procedure and Organizational Initiatives

- fall surveillance report (completed after every fall)
- pictogram in plexiglas case at door of resident's room
- restraint/transfer status pictogram
- establishment of Falls Working Group
- policy to remove all scatter mats from residents' rooms
- policy to have all personal furniture assessed by physio and occupational therapists
- hip protector policy
- fall risk assessment policy

Exercise/Activities Initiatives

- specialized schedule of activities
- routine exercise program (3x a week)
- walking, strength and balance groups

Medication/Nutrition Initiatives

- individualized assessment and prescription of calcium, vitamin D (and/or fortified powdered milk and menu items such as creamed soups or puddings), dietary supplements and bone-enhancing medication (Didrocal, Fosamax, etc.)
- water tank at every unit (encourage three to four glasses/resident/day)
- medication review after fall

Educational/Other Initiatives

- presentation to other homes
- literature review of falls, falls prevention and restraint reduction
- development of fall prevention brochure or education booklet about fall prevention strategies for seniors living in long term care homes
- publication of falls facts and tips in monthly newsletter
- inservice workshops (e.g., Alzheimer's disease/falls prevention)
- staff education (four 30-minute sessions over a two-week period on prevention strategies as well as ongoing education through Falls Prevention Resource Binder
- ongoing Falls Group
- pin board for falls locations
- poster project on falls prevention, bulletin board near staff room with project information, media coverage and acknowledgement of staff participation
- falls prevention education sessions
- educational brochure on Hip Protectors and least restraint

Source: www.injuryresearch.bc.ca

important to put a demographic spin on the numbers. Falls are not just going up. They are going up because of a demographic shift that took place 80 years ago."

As a result of the Roaring '20s, the number of people in their 80s today is large and the falls crisis is upon us. But what we will see in the second decade of the new millennium, notes Foot more optimistically, is an easing off of the pressure valve. "Because of the depression, there were not nearly as many babies born in the '30s as there were in the '20s. And because growth slowed down in the '30s, the num-

ber of people in their 80s and, consequently, the number of falls, will slow down 80 years later." In other words, Foot predicts a bit of a lull, probably between the years 2015-2025 or 2012-2022 due to the boom/bust phenomenon. But it will be a temporary respite. Once the baby boomers reach their 80s and make their presence felt in the national falls statistics, it will be boom once again.

Despite predictable fluctuations, the important message embedded in this demographic is that falls planning, intervention and prevention cannot be put off until tomorrow. There is no room for procrastination in anticipation of what is forecast down the road. The statistics — and the charts in this article — speak loudly for themselves. There is an increasing number of 80-plus-year-olds in the long term care system (predominantly women because women live longer than men), and with them comes another alarming trend that must be carefully considered: people are much more likely to die of a fall after the age of 80 than they are in their sixties or even their seventies. The official cause of death might be pneumonia or some other illness, but the person is in the hospital, or in the long term care home, because of a fall. "The fall itself might not kill you," says Foot, "but the consequences — and they can be emotional as well as physical — often do."

What Must Be Done

We know there are a lot of people living in long term care homes who are over the age of 80 and are at risk of falling, but what does this mean in terms of suiting up to tackle the giant? "The first thing you have to do," says Foot, "is to completely evaluate your physical environment and eliminate anything that could potentially contribute to a fall. That means throw rugs have to go — anything you can possibly trip over. Handrails, grab rails and guardrails become pervasive. It may mean that doorways have to be widened to give residents a little more room for manoeuvrability. Furniture has to be rearranged and strategically placed to give people surfaces to hold on to as they navigate around a room and negotiate open spaces. Long corridors must be reconsidered and reconfigured because they can be quite devastating to an 85-year-old gentleman who is a little wobbly on his feet."

The Bigger Picture

Given the facts, what are the implications? Looking at the bigger picture, Foot predicts that an increase in the number of falls will not only have a direct effect on long term care but will also spill out far beyond the sector.

Tools Related to Fall Prevention & Seniors

- Activities-Specific Balance Confidence Scale
- Falls-Risk Assessment Scales
- Falls-Risk Screening Test
- Falls Efficacy Scale
- Functional Reach Test
- Get-Up and Go Test
- Home-Screen
- Modified Gait Abnormality Rating Scale
- Modified Self Efficacy Scale
- Morse Fall Scale
- Multi-Directional Reach Test
- Performance-Oriented Assessment
- Preventive Health History Form
- Risk Perception and Safety
- Standardized Mobility Test
- STRATIFY
- The Timed Get-Up and Go
- The Timed Up and Go Research Report
- Tinetti Balance Scale
- UICFFM

The tool repository provides concise descriptions of measurement tools — surveys, questionnaires, checklists, assessment tools, etc. — relevant to injury prevention as well as information on how to obtain a tool.

For more information, contact the BC Injury Research and Prevention Unit Tools Repository at the Centre for Community Child Health Research in Vancouver, BC; (604) 875-3776; e-mail injury@cw.bc.ca.

Emergency Response

As more and more falls occur, there will be an enormous requirement for emergency medical services as well as a growing demand on fire and police departments. While this will not be the responsibility of long term care providers, it will involve them as members of a wider community response network.

"Assessing a community's integrated response system and determining, upfront, who is responsible for what under what circumstances, is very, very important," says Foot. "Long term care homes will have to call on these services, so knowing that they are well coordinated is absolutely crucial. If there is a fall and a fire, let's understand the priorities; the fire department will respond to the fire. And if we do cut back on or outsource EMS, then care providers will need to know who it is they are supposed to call in a crisis situation, what the cost implications of that call will be and so on."

External Partnerships

Foot challenges long term care homes to use the demographics and statistics as a compelling reason to look beyond their professional borders to external community and health care partnerships that have the potential to benefit all Canadians. As an example of what could and should happen, he points to the recent decision by many hospitals to cancel cataract surgeries. Since cataract repair is a crucial prevention measure in the context of falls, this is a bitter irony — and one that makes the establishment of stand-alone 24-hour cataract specialty clinics absolutely necessary.

"People working in long term care should be lobbying for these clinics because, ultimately, they will reap the benefits."

Palliative Care

Although it is impossible to predict future government and hospital administration policies, given the dramatic increase in the number of falls requiring hospitalization after the age of 80, it is reasonable to assume that many of these patients will be discharged into the long term care system. And, given that many patients over the age of 80 who suffer a fall will die as a direct or indirect result of their injuries, it is also reasonable to assume that the demand for palliative care in long term care homes will grow exponentially.

Although he has yet to study the underlying demographics, Foot feels this is a logical conclusion, particularly since hospital patients are sent "home" so quickly. It is also one that has its own set of economic implications.

"The families will need to understand this trend too — not just the individual who is affected and the staff in the home — because financial forces will inevitably come into play. Although the government will likely cover the basic costs of this kind of care, an increasing financial burden will be placed on individuals and their families to provide more."

Riding Out the Storm

A picture is worth a thousand words and the graphs in this article speak volumes. Even Dr. Foot, a seasoned demographer, is speechless when confronted by the visual evidence: "The incidence of falls increases so dramatically after age 80. The growth is so huge — almost exponential — and the picture just drives home the point. I was stunned when I first saw the data. The curve is virtually vertical."

Like the statistics, serious falls — whenever and wherever they occur — are shocking. Nothing can prepare a resident for a fall or its consequences, but long term care staff can make sure they are prepared. Canadians are in the middle of a demographic storm. By adopting an informed, proactive approach to falls management, however — taking the necessary precautions to minimize the risks associated with falling or eliminating injuries from occurring altogether — long term care homes can respond to this challenge and therefore weather the storm. **LTC**