SOCIETY OF ACTUARIES

Article from:

Reinsurance Section News

August 2005 – Issue 56

AGING—GREY MATTERS FOR LIFE INSURANCE UNDERWRITERS

by Barry Dixon

Editor's Note: The following article is based on a presentation given at the International Underwriting Congress, Geneva, Switzerland, in March 2005.

would like to begin by sharing with you my favorite definition of aging:

> "Aging is the continuing change in bodily structure and function which occur in a person who has already reached adulthood. These changes do not necessarily result from disease or trauma, but they increase the nearness of death."

In North America, the proportion of elderly persons now in the population is about 13 percent and is expected to rise to 20 percent by the year 2030. The number of elderly persons is expected to double (see Figure 1).

Despite an alarming increase in the levels of obesity within North America, most experts still expect increasing life expectancy for this and future generations. Figures reported in February 2005, by the National Center for Health Statistics in its annual

Figure 1

2004 mortality report, confirmed life expectancy continued to improve. The average life expectancy for Americans is a record 77.6 years. Male life expectancy is 75.8 years and female life expectancy is 80.1 years.

The spread between male and female life expectancy has decreased slowly but steadily in the United States since 1979. In 1979, females were expected to live 7.8 years longer than their male counterparts. The newly released February figures show that gap has narrowed to 4.3 years.

While the recently published U.S. projections for life expectancy are impressive, they do pale somewhat in comparison to several other countries.

Topping the U.S. average life expectancy figures include the following countries: Japan, (leads the rest of the world at almost 82 years), followed by Monaco, San Marino, Switzerland, Australia, Andorra, Iceland, Austria, Belgium, Canada, Finland, France, Germany, Greece, Israel, Italy, Luxembourg, Malta, Netherlands, New Zealand, Norway, Singapore, Spain and the United Kingdom.

The fastest-growing age segment is the group aged 85 and older.

Most of us have some apprehensions about dying of old age but if you live in the United States, such apprehensions can be allayed, comforted by the fact that no one has died of old age since 1951. How can this be, you might ask? The answer is a simple one: in 1951 all state and federal agencies were ordered to adopt a standard list of contributing and underlying causes of death. In that year, old age was deleted from the list.

The dream of physicians is to find a cure for all the big killers: heart disease, cancer and stroke. This will likely become a reality at some point in the future, but the burning question from a U.S. life insurance perspective is what effect will this have on average life expectancy? The answer, according to many, is that life expectancy will increase an impressive 12
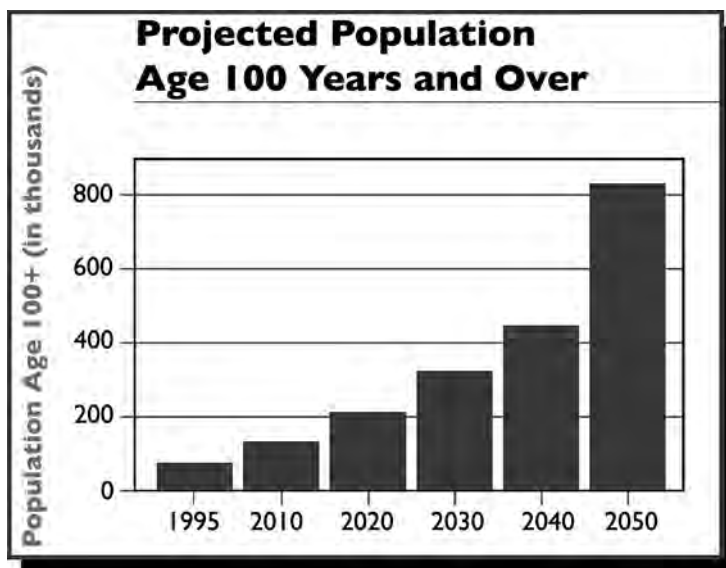
years but probably not have as great an impact on life expectancy as many might surmise. What this answer suggests is that saving people from one or more diseases just means they will die as a result of some other relentless disease or complication of the aging process.

An 18th century cleric wrote, "Better to Wear Out Than Rust Out." Those seven words may help hold the secret to long life. We should all remember that the passage of time will one day wear out even the strongest among us, but like the venerable Mercedes Benz automobile, our aging can be gracious, perhaps even elegant.

The good news for us as individuals and also for life insurance companies concerned with accurately projecting life expectancy is that an individual's lifestyle has a pronounced impact on longevity. Credible specialists, like the 10 year, $10 million study privately funded by the MacArthur Foundation Research Network on Successful Aging, concluded that for better (or worse), we are in large part responsible for the status of our health in old age. Their findings suggested that the genes we are born with are responsible for only 30 percent of how we age and when we die. In the great gene lottery, few of us win the "good genes" that help keep people healthy in spite of ourselves. The flip side of that conclusion is that a positive individual lifestyle contributes as much as 70 percent toward the probability of having a long and healthy life. Those positive characteristics include:
• Follow a healthy diet.
• Exercise regularly.
• Stop or never take up tobacco use.
• Minimize alcohol intake.

The good news is that the body is forgiving and that it is almost never too late to reap the benefit of a positive lifestyle change. In other words, people are not necessarily destined to be sick, dependent or unproductive in their "golden years," but unless we take charge of our lives, many of us may end up that way.

To many insurers, old age begins at age 65 and with the projected increase in life expectancy, insurers face a new wave of insurance candidates over ages 65, 70 and 75, with "risk assessment challenges" in underwriting the health of old age risks.

Life insurance underwriters will want and need to find non-invasive ways to determine an individual applicant's "functional ability" which include the activities of daily living (ADLs) and the independent activities of daily living (IADLs).

ADLs include fundamental tasks, such as eating, walking, toileting, etc. IADLs include more advanced skills, such as managing one's banking, paying bills, driving a car, etc.

In this area we can learn a lot from our colleagues underwriting long-term care risks. I suggest that underwriters will want to develop this type of information to assess life insurance applications on elderly lives:
• Weekly physical activities—what, where and how often. (An active lifestyle over age 70 may make a difference in the onset of cognitive decline.)
• Does the person have an active driver's license? Is the individual an active driver? Does the person drive at night? (Old age alone does not imply poor driving, but drivers over age 81 have a higher accident rate per mile driven than any other age group except the accident-prone 16 to 24 age group).
• Does the person have an active social life? Is the person active in the community? (Population studies have shown that volunteerism is a predictor of survival among the elderly.)
• Does the individual personally manage their own finances, pay their own bills, make trips on their own to the bank or do they require help?
• Is the individual independently mobile? How often and how long can they walk? Can the person climb stairs unaided?
• Has the individual suffered from a fall? (A history of falling is a good predictor of future falls with some 60 percent experiencing repeated falls. The risk is hip fracture with a typical hip fracture patient being age 80. Twelve to 20 percent who suffer a hip fracture due to a fall die within 12 months). How recently? Did an injury result from the fall and has the person fully recovered? What were the circumstances? What medications are currently being taken? (We know, for those living in cold-weather climates with snow and ice storms, that non-weather related falls are not a normal part of aging. Typically they result from some underlying compromise of balance. Risk factors for

falls include: age, arthritis, sudden drop in blood pressure upon arising, poor cognition, poor vision, gait or balance, or the use of more than four medications.)

• Consider adding standardized cognitive testing and mobility testing to the insurance medical examinations to provide another assessment tool for applicants over age 70.

Such information will certainly be helpful in the assessment of health of older age applicants but, like many processes, it is not without some flaw. Here the flaws are, how reliable is the information collected, how consistently is it collected and applied and lastly how sensitive will applicants be to answering such questions?

Underwriting elderly insurance applicants can be more expensive. The elderly applicant may have more medical providers and resulting health records to be reviewed.

The underwriter will need to assess lab test results and determine if the results are significant or not because older age lives have different normal values than the younger population. Certain screening tests, like screening for heart disease will have a higher predictive value due to the increased prevalence of heart disease as we age.

Underwriters will need to better understand diseases associated with aging and those that do not add any mortality risk versus those that do. The symptoms of disease common in younger adults may not occur in elderly patients. For example, older age adults with angina may complain of shortness of breath versus a chest pain. In the elderly, symptoms may be milder and confused with indigestion, arthritis or the aches and pains of old age. The elderly may be on pain medication, which would blunt their ability to recognize warning symptoms. Experts suggest that for individuals age 75 and up, as many as 50 percent of all heart attacks go unrecognized.

Traditional risk factors, such as family history, will have little relevance as the individual may already have outlived parents. Cholesterol levels may be less useful as a predictor of heart disease. Other factors like smoking history will continue to predict higher mortality probably to age 85 and beyond. Some obesity in persons over age 75 may have a protective effect, providing a greater margin against an illness resulting in a sudden weight loss.

• Risk factors that are unique to the elderly include: depression, which is associated with a higher risk of premature death, particularly if there has been a prior history of a heart attack. Suicide rates are almost double that of a younger adult population and most common among elderly caucasian males who live alone.

• Sleep apnea often increases with age, is more common in men and increases the risk of heart disease.

• Weight loss should be viewed with caution as it could indicate serious disease, such as cancer, depression, dementia, infection, etc.

• Episodes of confusion may present as a symptom of coronary artery disease, dementia, a mini-stroke, transient is chemic attack or other disease.

• Dependence on relatives or friends for getting around, shopping, banking, etc. is a predictor of mortality

• Frequent falls, difficulty walking or difficulties with balance are strong predictors of worse mortality.

To end on a positive note, healthy lives can in fact be identified. Many healthy lives provide evidence of regular checkups and preventative health care. Elders who travel for business or pleasure show physical stamina, mental alertness, organization and engagement with the world.

The ability to adjust to change improves longevity. The elderly experience more losses than younger people. They must deal with many possible changes or losses, including retirement, loss of a spouse, family member or friends or the loss of personal health.

The person who is able to cope with those changes and still find satisfaction in life has a survival advantage! ✺

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