

Older Farmers: Factors Affecting Their Health and Safety

Maria C. Hernandez-Peck, Ph.D.
Associate Professor and Director
Center for Studies in Aging
School of Social Work and Human Services
Eastern Washington University
MS-19, Cheney, WA 99004
Tel. - (509) 359-6479

Abstract

Agriculture has been recognized as one of the most hazardous occupations in the United States. In an industry where according to the 1997 Agricultural Census, an estimated 500,000 farm workers, 1/4 of all farm operators are 65 years of age or older, age becomes a serious factor when considering potential risk for injuries among this population. Because no mandatory retirement age exists for older farmers, many may continue to perform some tasks beyond their ability to safely accomplish their work.

Older farmers have been said to be a “special needs population that needs recognition and attention.” To date, however, this particular group has been underrepresented within the research literature dealing with Farm Health and Safety. This White Paper seeks to highlight currently available research literature on older farmers. Areas to be addressed include, the work histories of older farmers, factors involved in their decisions to retire, lifetime experiences with farm accidents, existing chronic health conditions, and access to health care.

In addition, need for further research, not only on the subject of Farm Health and Safety, but on the topic of successfully aging in place within rural communities will be highlighted. The need to connect with already established community based service networks under Older Americans Act to enhance successful aging will be addressed.

Background and Significance

The graying of America, a well-recognized demographic trend, is increasingly evident among our population of farm operators. While a larger share of older operators has long characterized U.S. agriculture, there is evidence that the number of younger persons entering farming is decreasing. The average age of farmers within the United States is 54.3 years and the proportion of farmers age 55 and over has risen from 37% in 1954 to 61% in 1997. In contrast, the share of farmers less than 35 years old has declined from 15 percent in 1954 to 8 percent in 1997. According to the U.S. Census of Agriculture, the only age category showing a substantial increase in 1992 included farmers age 70 or older.

Farmers routinely work beyond the standard retirement age and frequently farm to an advanced age. As self-employed workers, farmers can continue to farm - often at a reduced scale - after

reaching the age at which wage and salary earners have retired. (Penn State News) Thus, at a time of physical diminishment, older farmers face increased vulnerability to injuries and illness and may continue to perform tasks beyond their ability to safely accomplish the work. Concern over farm health and a safety as an issue related to older farmers has led to beginning research efforts in this area. Although current information is limited, several studies have begun to address the needs and challenges currently affecting older farm operators. Preliminary findings from these will be highlighted throughout this paper.

The terms "older farmers" and "older farm operators" will be used interchangeably throughout this paper.

Health and Safety

Older farmers have been said to be a special population that needs recognition and attention. However, with few exceptions, older farmers, to date, have been largely underrepresented in research efforts related to farm health and safety.

There are a number of conditions frequently associated with age (i.e., arthritis, limited vision and hearing, and depression) that potentially make the demands of daily farming extremely dangerous for the older farmer. Nonetheless, older farmers have been described as unwilling to recognize or accept their physical limitations. (Foxmarketwire.com)

Most recent available research literature on older farmers has been the result of the 1990 mandate by the US Congress to assess health and safety risks of family farmers.

The Farm Family Health and Hazard Survey funded by NIOSH including cooperative agreements with 6 states (California, Colorado, Iowa, Kentucky, New York, and Ohio) appears to be the main source of information from which some data about this population can be extrapolated. As part of this effort, The Kentucky Farm Family Health and Hazard Survey partly addressed the health and medical condition, and on the farm health and safety risks among Kentucky older farmers. Specific areas included (1) work history of older farmers; (2) lifetime experiences with tractor rollovers; (3) balance and sway in older farmers; (5) exposure and farm chores among older farmers; and, (6) insurance coverage among older farmers. Findings from this study indicate that:

- One in nine farmers aged 55 and older had been involved in a tractor rollover.
- Workers older than 55 accounted for about half of all farming deaths, with fatality rates 2 1/1 higher than workers under 55.
- Older males working in Kentucky farms faced a unique set of health concerns. (Browning, et. al., 1998)
- Falls especially while getting on or off farm equipment and while taking down tobacco in the barn, were primary causes of injury.

- Older farmers were found to have a higher rate of skin cancer, high blood pressure, arthritis, and hearing problems when compared to older men in the general population.
- Pesticides, particularly herbicides, were potentially associated with an increased risk of an injury while doing farm work.
- Vision and hearing impairment were found to potentially increase a farmer's risk for an injury while doing farm work.
- Farmers working on farms with beef cattle or farms with beef cattle and tobacco had a significant increased risk for a farm-related injury.
- Farmers reporting a prior injury that limited their ability to farm were also found to be at an increased risk for a farm-related injury.

In Pennsylvania about 42% of farm fatalities in 1998 involved victims 65 years of age or older. Tractor related fatalities among this population seemed to predominate. Two-thirds of farm fatalities involving farmers older than 65 were tractor related, with a large majority involving an overturn. (Penn State News, 9/11/99)

One Canadian study, addressing work-related mortality in older farmers, found that older farmers died while performing tasks common to general farm work, that most were owner-operators, and that many were working alone at the time of death. The overall mortality rate, between 1991 and 1995, in the Canadian farm population was 32.8 per 100,000 population per year. (Voaklander, et. al., 1999)

One other study found farmers to have a 70% greater risk than non-farmers of developing prostate cancer. Moreover, older farmers were found to have more than twice the risk of non-farmers. (Epidemiology, 1999)

Retirement Patterns

The estimated number of retirement age U.S. farm operators in 1993 was 634,000. However, only 17% of these, or 352,000 farm operators considered themselves retired. Nonretired elderly operators accounted for the balance or 282,000. They worked on an average of 1,685 hours on their farms per year. In contrast retired operators worked an average of only 685 hours per year. (Hoppe, 1996)

Unlike the rest of the population, farmers tend to remain in farming beyond the normal retirement age. It is not surprising to see farmers in their 70s still farming full-time. A survey conducted in 13 western Illinois counties revealed that farmers in the region were twice as likely to continue working beyond age 65 as their cohorts in other jobs. Whereas, nationally, only 13/14 % of workers 65 and over are still on the job, of the nearly 1,700 farmers who responded to the survey, 25 percent were 65 years or older. The average age in this group was 73. A third of the 25% were 75 years or older and had been farming an average of 46 years. And 16 percent were 80 years of age or older." (Sofranko, 2000)

Focus group research in Kentucky and Iowa (Reed, 1998) found that "only farmers with severe physical limitations had completely retired from physical farm labor." Focusing on the reasons that farmers over 50 continue to engage in physical farm labors, it was found that study participants first relinquished mental tasks, such as computerized records and design of new farm programs. Tasks involving heavy lifting, climbing, and repetitive motion cease when physical limitations precluded their completion without excessive pain. Machinery assisted work, especially tractor driving, continued unless the farmer moved away from the farm. Older farmers were frequently used as reserve labor by the succeeding generation. Factors that influenced continued labor included liking the work, generational passage of the farm, and physical stamina. Education, income, and marital status had little influence. Based on her findings, Dr. Reed suggests the need to place more emphasis on developing work styles and work behaviors that foster safe and healthy work environments. (Reed, 1998)

A survey conducted by Successful Farming Magazine (Tevis, 2000) provides some additional insights into older farmers' retirement patterns, how they view their health, as well as their perceived access to community based long term care services. A majority of readers surveyed planned to continue to live on the farm: 54% currently lived in the same house during retirement as they had previously lived. One fourth of farmers between 64 and 69 years of age planned to continue to farm. However, a subtle shift may be taking place. In 1988, 21% had no plan to retire. In 1998, 11% said they had no plan to retire.

This survey showed that 47% of farmers rated their health as "very good," compared with 35% in 1988. However, only 49% said that they have an annual physical exam; the majority said that they did not feel it was necessary. (Tevis, 2000)

Farmers in this survey seemed to be well acquainted with community based long-term care services. Of the participants,

- 86% had access to home health care
- 76 lived in communities where there was transportation for the elderly for appointments, grocery shopping and other services.
- 65% had access to assisted-living facilities where they could live independently with minimum help.
- 67% stated that they would have hospice care, if needed.

Other Pertinent Literature

Review of farm literature suggests that family owned and operated farms continue to dominate in the United States, despite changes in their size and dependence upon family resources. (Willienig, 1981). Farms, more than other businesses, are still family enterprises, providing basis for work patterns, leisure time, and social life. Farms are also 5 times more likely to pass from generation to generation than any other business. (Keating, 1995)

Retirement patterns of older farmers need to be examined within the context of the farm transfer process to the next generation. This is a rather complex process that allows the older farmer to remain engaged in the farm enterprise. The family farm does not automatically go to the son. It is often an intergenerational operation in which succession occurs by small increments rather than a fast transfer. Control is usually relinquished in pieces, with the older farmer hanging on to the parts that are most central to the business. (Keating, 1995). Thus, problems posed by retirement may be less stressful for the older farmers, since full retirement is seldom a choice. When they do leave the farm, they tend to remain in the community allowing them to maintain contact with family and friends and to retain at least part of his position of power.

Research in Progress

Several studies are currently focus on the older farmer and retirement. Task Retirement of Older Farmers, by Dr. Deborah Reed, Ph.D., University of Kentucky, Southeast Center for Agricultural Health and Injury Prevention, has as its primary objective to learn more about farmers' and their families view of retirement and farm chores. This study specifically seeks to (1) determine the variables that impact the decision to retire from farms task; (2) examine the work organization pattern of older farmers; and (3) examine the association between farm tasks, chronic health conditions, and injury.

One small pilot project, Older Farmers: Factors Affecting Their Retirement Decisions, is currently in progress with Maria Hernandez-Peck, Ph.D., Center for Studies in Aging at Eastern Washington University as the Principal Investigator. The population sample includes 30 farmers, equally distributed between Whitman and Franklin Counties, ranging in age between 65 and 80 years. This project attempts to discover, through in-depth personal interviews reasons why leaving the farm, not participating in farm work, and/or transitioning farm ownership to others may be difficult for elder farmers. Additionally, potential risk factors, which may contribute to increased injuries among this older male population (i.e., self-reported health status, current use of prescription medications, and self-reported prevalence of health conditions) are explored. At present all personal interviews have been completed. These are in the process of being transcribed prior to data analysis.

A third study, Older Farmers and Retirement, is currently underway at the University of New England, New South Wales, Australia. This project funded by Rural Industries Research and Development Corporation seeks to provide a deeper understanding of the meaning and experience of farm families in Northern Australia. It is part of an overall research effort to understand impact of a multitude of forces and factors having an impact on rural Australia. The research projects involves a comprehensive literature review, the conduct of focus groups and interviews in four areas of northern NSW and the development and evaluation of a retirement planning and education program designed to meet the needs of farmers and their families.

Gaps in Knowledge

Older farm operators have been traditionally excluded as an identifiable population from

gerontological literature addressing rural elderly. (Bull; Coward & Lee; and, Coward & Krout) Older farmers as a population group were absent from any of the presentations given at the most recent "International Conference on Rural Elderly" held in Morgantown, West Virginia in June of 2000 under the auspices of the West Virginia University Center on Aging. Similarly, a most recent report by the Department of Health and Human Services on Aging and Health fails to identify older farmers as a distinct population group. Furthermore mental health needs of older farmers appear to go unnoticed in the most recent U.S. Surgeon General's Report on Mental Health.

Recommendations for Further Research

Current research information on older farm operators is limited at best. Consequently, a number of recommendations should be implemented. These should include but not be limited to:

1. Research efforts addressing the needs of rural elderly should include older farmers as an identifiable population. This would require close coordination with such federal entities as the National Institute on Aging, the Administration on Aging, and NIOSH.
2. Preliminary findings from small pilot projects on "older farmers" as a population at risk should serve as the basis for further research in this area. Consideration should be given by NIOSH for a more in-depth understanding of older farmers, their retirement patterns, and health and safety concerns. For this purpose, studies including multiple sites should be considered.
3. Further research is also needed on the experiences of older farmers who have successfully retired and the factors, which have made this, process a successful one.

Potential Future Partnerships

Partnerships have been suggested as a means of increasing both research and educational efforts in the area of Farm Health and Safety. However, the question arises as to what extent potential partnerships have been explored with the existing network of services to the rural aged funded under Title III of the Older Americans Act. Similarly, collaboration between existing University based Centers on Aging and Centers for Farm Health and Safety should be encouraged and pursued to more effectively address farm health and safety issues among older farm operators.

References

Allen, P. B., W. E. Field, and M. J. Frick. "Assessment of Work-Related Injury Risk for Farmers and Ranchers with Physical Disabilities." *Journal of Agricultural Safety and Health* 1 (2): 71-81, 1995.

Anderson, Trudy B. and B. Jan McColloch. "Conjugal Support: Factor Structure for Older

Husbands and Wives." *Journal of Gerontology*, 1993, Vol. 48, No. 3, pp. 5133-5142.

Barlett, Peggy. "Part-time Farming: Saving the Farm or Saving the Life-Style." *Rural Sociology* 51 (3), 1986, pp. 289-313.

Brison, Robert James and Charles William Lawrence Pickett. "Non-Fatal Farm Injuries on 117 Eastern Ontario Beef and Dairy Farms: A One-Year Study." *American Journal of Industrial Medicine* 21:623-636 (1992).

Browning, Steven R., Helena Trusczyńska, Deborah Reed, and Robert H. McKnight. "Agricultural Injuries Among Older Kentucky Farmers: The Farm Family Health and Hazard Surveillance Study." *American Journal of Industrial Medicine* 33:341-353 (1998).

Bull, C. Neil (ed.). *Aging in Rural America*. Thousand Oaks, California: Sage Publications, 1993.

Cerhan, JR; Cantor, KP; Williamson, K; Lynch, CF; Torner, JC; Burmeister, LF. "Cancer Mortality Among Iowa Farmers: Recent Results, time trends, and lifestyle factors (United States)." *Cancer Causes & Control*, 9: (3) 311-319 May 1998.

Coward, Raymond T. and Gary R. Lee (eds.). *The Elderly in Rural Society*. New York: Springer Publishing Co., 1985.

Coward, Raymond T. and John A. Krout (eds.). *Aging in Rural Settings*. New York: Springer Publishing Company, 1998.

----- . *Epidemiology*, 1999, 10:452-455.

Fitchen, Janet M. "Poverty as Context for Old Age in Rural America." *Journal of Rural Community Psychology*, Vol. 11, No. 1, 1990.

Foxmarketwire. "Farm Scene: Aging Farmers often slow to accept physical limitations." March 14, 2000. http://foxmarketwire.com/wires/0314/f_ap_0314_4.sml

Gale, F. "America's Aging Farmers. Who "Will Take Their Place?" *Rural Development Perspectives*, Vol. 8, 3, pp. 20-24.

Godwin, Deborah D., Peggy S. Darughn, Linda P. Little, and Julia Marlowe. "Wives' Off-Farm Employment, Farm Family Economic Status, and Family Relationships." *Journal of Marriage and the Family* 53 (May 1991): 389-402.

Heath, Robin L., Steven R. Browning, and Deborah B. Reed. "Prevalence and Risk Factors for Hypertension Among Older Kentucky Farmers." *Journal of Agromedicine*, 6 (1), 1999.

Hoppe, Robert A. "Retired Farm Operators: Who Are They?" *Rural Development Perspectives*, vol. 11, no. 2, pp. 28-35.

Keating, Norah. "The Farm Family Business." *Rural Sociology* 1995, 60, 1, Spring, 166-168.

Kramarow E., Lentzner H., Rooks R., Weeks J., Saydah S. *Health and Aging Chartbook*. Health, United States, 1999. Hyattsville, Maryland: National Center for Health Statistics, 1999.

Krout, John A. (ed.). *Providing Community-Based Services to the Elderly*. Thousand Oaks, California: Sage Publications, 1994.

Iowa Farmer Today. "Many Older Farmers Have No One Waiting to Take Over." 10/23/00. <http://www.iowafarmer.com/oo10news/older.htm>

McCulloch, B. Jan. "The Relationship of Family Proximity and Social Support to the Mental Health of Older Rural Adults: The Appalachian Context." *Journal of Aging Studies*, 9, 1, pp. 65-81, 1995.

Murphy, Dennis. "Farmers over Age 65 Are At Higher risk of Fatal Injuries." *Penn State News*, September 10, 1999, College of Agricultural Sciences. <http://www/aginfo.psu.edu/News/september99/age.html>,

NIOSH. Agriculture. Extramural and Intramural Research Projects. U. S. Department of Health and Human Services. Public Health Services. Center for Disease Control and prevention. National Institute for Occupational Safety and Health. April, 1997.

Nordstrom, David L., Peter M Layde, Kurt A. Olson, Dean Stueland, Laura Brand, and Marilyn A. Follen. "Incidence of Farm-Work-Related Acute Injury in a Defined Population." *American Journal of Industrial Medicine* 28:551-564 (1995).

Reed, Deborah and Deborah T. Claunch. "Work 'til I drop": Portraits of Older American farmers." Paper presented at the Annual Meeting of the APHA on November 14th, 2000.

Rosenblatt, Paul C. and Linda Olson Keller. "Economic Vulnerability and Economic Stress in Farm Couples." *Family Relations*, 1983:32, 567-573.

Runyan, Jack L. "A Review of Farm Accident Data Sources and Research: Review of Recently Published and Current Research." <http://www.cdc.gov/niosh/nasd/docs2/da01500.html>.

Smith, Ian M. "Post Retirement Farmers Beware." *Virtual Hospital*, July 20, 1999. <http://www.vh.org/Patients/1HB/IntMedABA30/1995/farm.html>.

Sofranko, Andrew. "Rocking Chair Remains Idle for Many Illinois Farmers." *ACES News*, July 12, 2000. College of Agricultural, Consumer and Environmental Sciences. University of Illinois at Urbana-Champaign.

Stallones, Lorann. "Surveillance of Fatal and Non-Fatal Farm Injuries in Kentucky." *American Journal of Industrial Medicine* 18:223-234 (1990).

Tevis, Cheryl. "Prime time for Seniors (life conditions of the aged)." *Successful Farming*. Feb. 2000.

West Virginia University, Center on Aging. *First International Conference on Rural Aging. A Global Perspective. A Book of Abstracts*. Charleston, West Virginia, June 7-11, 2000.

Williening, "Farm Families and Family Farming" in *The Family in Rural Society*, ed., by Raymond T. Coward and William M. Smithy, Jr., Westview Press, 1981.

The Wisconsin Catholic Conference. *The Changing Role of Rural Life in Wisconsin: Implications for Family Farms and the Church (Bishop's Statement on Rural Life)*.
<http://www.wisconsinatholic.com/statements/ruralstatement.html#whofarms>

U. S. Department of Health and Human Services. *Mental Health: A Report of the Surgeon General*. Rockville, Maryland: U. S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999.

Voaklander, DC, L Hartling, W. Pickett, H. Dimich-Ward, and RJ Brison. "Work-related mortality among older farmers in Canada." *Canadian Family Physician*, 45:2903-2910 DEC 1999.

Xiang, HY, L. Stallones, and YL Chiu. "Nonfatal Agricultural Injuries Among Colorado Older Male Farmers." *Journal of Aging and Health*, 11: (1) 65-78, FEB. 1999.

Zhou, Chun and Jeffrey M. Roseman. "Agricultural Injuries Among a Population-Based Sample of Farm Operators in Alabama." *American Journal of Industrial Medicine* 25:385-402 (1994),