The study found that working primarily in construction trades exacerbates the decline in overall health, increasing likelihood of functional limitations, chronic lung disease and stroke in later years.

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in injury statistics. For example, the highest proportion of work-related deaths shifted from those aged 25 to 34 years to those aged 45 to 54 years during the last 15 years. It is known that health deteriorates with age, as does an individual’s health status. Due to possible declining cognitive and physical abilities with age, older workers are more vulnerable to risks at worksites. However, the available evidence on the relationship of workplace conditions on health and functional capacity is scarce, and how chronic illnesses contribute to disability and early retirement are poorly understood. Our project aims to address these research gaps by assessing how job exposure, health behaviors and the aging process affect workers’ safety performance and health outcomes, particularly in their later years. I am the principal investigator for this project.

BP: What are the greatest SH&E hazards facing today’s aging construction workforce?

SD: Because construction work is highly physically demanding and entails exposures to hazardous substances, the accumulative exposures contribute to a variety of chronic health problems, e.g., musculoskeletal problems, lung and respiratory disorders, as well as other problems that worsen during aging, such as hearing and vision deficits. The prevalence of chronic diseases grows in the aging construction workforce; at the same time, risk of serious or fatal injuries increases at an alarming rate among older construction workers.

BP: What methodology is the Center following while conducting its research?

SD: We are conducting a series of cross-sectional and longitudinal studies using a multitude of large nationally representative datasets. We want to identify key risk factors contributing to safety and health of older construction workers and to examine health disparities between older and younger workers. At the same time, we closely monitor the overall trends of the aging workforce through our regular surveillance activities.

BP: Has the Center’s research produced any surprising results thus far?

SD: We have done several studies recently. Our analysis of fatal falls revealed that decedents who were 55 years or older had a significantly higher likelihood that death was caused by a fall, after controlling for major demographic and employment factors. The fatal fall rate for older roofers (the occupation with the highest risk of fall injuries) was nearly triple the rate for younger roofers (under age 55). We also found that
falls from ladders caused a much larger proportion of deadly falls in the older decedents than in younger decedents.

Our longitudinal study found that working primarily in construction trades exacerbates the decline in overall health, increasing likelihood of functional limitations, arthritis, back problems, chronic lung disease and stroke in later years.

**BP:** How can national voluntary consensus standards, such as the A10 Standards for Construction and Demolition Operations, be incorporated into construction SH&E practices to protect aging workers from occupational injuries? Are any specific standards particularly helpful or effective?

**SD:** All of these standards are crucial to establishing thresholds for protecting worker safety and health. While younger construction workers are required to have safety and health training when they enter the construction industry, older workers may need refresher training. Moreover, given that the aging workforce will continue, injury prevention, job redesign and ergonomic solutions should take age factors into consideration.

**BP:** Where will the Center publish the results of its research? How will those in the construction industry be able to make use of the research results?

**SD:** We disseminate our results in a variety of communication venues—peer-reviewed journals, data briefs and reports via the CPWR website and Internet library (eLCOSH), progress reports to NIOSH, presentations at local, national and international conferences, etc. We also compile a clearinghouse of data in the Construction Chart Book (now in its fourth edition), covering different topics, including the aging workforce. In addition, we disseminate our data by responding to data requests from all stakeholders (government, construction contractors, workers, reporters, labor union, researchers, etc.) on a regular basis. Many people use our data and findings in their research papers and presentations or in designing intervention programs.

**BP:** Do you feel other demographic groups within the construction industry also warrant more focused study?

**SD:** Our study also focuses on Hispanic workers, immigrant workers, self-employed workers, temporary workers and workers employed in small establishments.

**BP:** What are the Data Center’s plans and goals for the rest of the year?

**SD:** The lifespan study is a 5-year project (2009-14). We will continue to work on it.

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