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Cost of Agricultural Injuries and Occupational Diseases in Finland

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Background. Agriculture is a hazardous occupation, however, little cost information exists and interventions are often planned in the absence of cost data. This study was designed to provide cost information for targeting research and intervention. The study used 1996 claims data (n=10,992) from the Finnish farmers workers compensation, which covers all farmers (n=132,118) and provides various types of compensation.

Objectives. The objectives were to characterize injury and occupational disease claim costs, identify costly claim types, and quantify risk factors associated with costs.

Methods. One-way ANOVA was used to identify characteristics associated with high claim costs. General Linear Models procedure was used to measure the effect of risk factors while adjusting for other risk factors. Outcome variables included total cost, medical cost, lost time compensation, permanent disability pension, and rehabilitation. Risk factor variables included age, sex, income, type of work, cause, type of incident, and type of injury.

Results. The total insurance costs in 1996 were 23.5 million EUR and consisted of medical (16%), lost time (37%), accident pension (23%), survivors' pension (3%), inconvenience allowance (7%), rehabilitation (6%) and other costs (9%). The mean injury cost was 1,099 EUR and the mean occupational disease cost was 4,380 EUR. The most costly types of injury/illness included asthma, hypersensitivity pneumonitis, brain and spinal cord injury, amputation, skin disorder, and bone fracture. Transportation, commuting, livestock, horses, and forestry work caused costly claims. Multivariable analysis showed that age, personal cumulative claim rate, income, work activity, type of incident, and type of injury had a significant effect on total cost. Sex, worker status, and injury month had no effect.

Conclusions. From the cost standpoint, prevention priorities include large animals, organic dusts, floors and walkways, slippery and uneven terrain, sudden movements, scaffoldings, ladders, stairs, wagons, circular saws, tractors, and repetitive motion.