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SHORT- AND LONG-TERM CONSEQUENCES OF AGRICULTURAL INJURIES AMONG CHILDREN/YOUTH AND IMPACT ON AGRICULTURAL OPERATIONS: A CASE-CONTROL STUDY

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Occupational and residential environments overlap on agricultural operations, placing children/youths as well as adults at risk. This study was conducted to determine the short- and long-term physical, psychosocial and economic consequences of injuries occurring among children/youths living in operation households and the associated burden on the overall operations in Minnesota, Wisconsin, North Dakota, South Dakota and Nebraska Midwestern states characteristic of major types of United States agricultural production. From a random selection of 32 000 agricultural operations, generated from the states operations by the United States Department of Agriculture, 1474 eligible agricultural households participated. Baseline and follow-up data on physical and mental health, agricultural and other injury disability and economic status, were collected by trained interviewers using computerised assisted telephone interview data collection instruments; two 6-month injury data collection periods followed baseline collection. Among all household members, a total of 584 injuries were incurred with 250 related to their own agricultural operation. Respective child/youth case and control households, identified for these two 6-month periods were: (1) 100 cases (122 injuries), 366 controls; (2) 115 cases (138 injuries), 414 controls. Follow-up evaluation data were collected annually for each set, for the subsequent 2 years. Analyses focus on short-/ long-term consequences, by examining changes between baseline, and follow-up data, comparing case and control households. Confounders are selected for multiple logistic regression analyses using directed acyclic graphs; reweighting adjusts for response and eligibility biases. Results of this effort address a serious deficiency in knowledge about the burden of agricultural and other injury consequences.