## Neurologic Symptoms Associated With Raising Poultry and Swine Among Participants in the Agricultural Health Study

Meghan F. Davis, DVM, MPH, Freya Kamel, PhD, MPH, Jane A. Hoppin, ScD, Michael CR Alavanja, DrPH, Laura Beane Freeman, PhD, Gregory C. Gray, MD, MPH, FIDSA, Kenrad Nelson, MD, and Ellen Silbergeld, PhD

## **Supplemental Table.** Prevalence Ratio Estimates and 95% Confidence Intervals for Neurologic Symptoms by Exposure to Swine or Poultry among 15,932 farmers in the Agricultural Health Study, 1993-7, comparing Pesticide Models

	Numbness	Weakness	Difficulty Speaking	<b>Blurred Vision</b>	Night Blindness
Swine Farmers (n=7079)					
Categorical Adj. Model <sup>a</sup>	1.13 [1.08-1.24] <i>p=0.008</i>	1.18 [1.05-1.32] p=0.006	0.94 [0.77-1.14] p=0.53 (ns)	1.01 [0.89-1.16] p=0.85 (ns)	0.94 [0.83-1.07] p=0.36 (ns)
Original Adj. Model <sup>b</sup>	1.18 [1.08-1.29] <i>p=0.0003</i>	1.22 [1.09-1.37] <i>p</i> =0.0007	0.96 [0.79-1.17] p=0.69 (ns)	1.06 [0.93-1.21] p=0.41 (ns)	0.99 [0.88-1.13] p=0.98 (ns)
Swine Confinement Worker	rs (n=5930)				
Categorical Adj. Model <sup>a</sup>	1.17 [1.07-1.29] <i>p=0.001</i>	1.23 [1.09-1.39] <i>p</i> =0.008	$\begin{array}{c} 1.01 \ [0.83-1.23] \\ p = 0.94 \ (ns) \end{array}$	1.03 [0.90-1.18] p=0.66 (ns)	0.99 [0.87-1.13] p=0.88 (ns)
Original Adj. Model <sup>b</sup>	1.23 [1.12-1.35] <i>p&lt;0.0001</i>	1.28 [1.14-1.44] <i>p&lt;0.0001</i>	1.04 [0.86-1.27] p=0.67 (ns)	1.10 [0.96-1.26] p=0.18 (ns)	1.05 [0.93-1.20] p=0.42 (ns)
Poultry Farmers (n=784)					
Categorical Adj. Model <sup>a</sup>	1.22 [1.03-1.44] <i>p=0.025</i>	1.16 [0.94-1.44] p=0.16 (ns)	0.88 [0.60-1.28] p=0.49 (ns)	0.88 [0.68-1.15] p=0.36 (ns)	0.82 [0.64-1.05] p=0.11 (ns)
Original Adj. Model <sup>b</sup>	1.27 [1.07-1.51] <i>p=0.006</i>	1.19 [0.97-1.48] p=0.10 (ns)	0.89 [0.61-1.30] p=0.55 (ns)	$\begin{array}{c} 0.92 \; [0.71\text{-}1.20] \\ p = 0.53 \; (ns) \end{array}$	0.84 [0.66-1.08] p=0.17 (ns)
Poultry Confinement Work	ers (n=713)				
Categorical Adj. Model <sup>a</sup>	1.20 [1.001-1.44] <i>p=0.049</i>	1.19 [0.96-1.49] p=0.11 (ns)	0.86 [0.57-1.29] p=0.47 (ns)	1.06 [0.82-1.38] p=0.66 (ns)	0.87 [0.68-1.13] p=0.30 (ns)
Original Adj. Model <sup>b</sup>	1.25 [1.05-1.50] p=0.01	1.22 [0.98-1.52] p=0.07 (ns)	$\begin{array}{c} 0.87 \ [0.58-1.30] \\ p = 0.49 \ (ns) \end{array}$	$\begin{array}{c} 1.11 \ [0.85-1.43] \\ p = 0.45 \ (ns) \end{array}$	0.90 [0.70-1.15] p=0.39 (ns)

*a*. Categorical adjusted model controlled for state, race, sex, age, education, alcohol consumption, smoking, consumption of chicken and pork products, and classes of pesticide exposure. Insecticides and Herbicides were divided into dummy variables, comparing 0 (did not use), to categories of lifetime exposure: 1 (1-50 days), 2 (51-500 days), and 3 (>500 days). Fungicides and Fumigants were divided into dummy variables, comparing 0 (did not use) to categories of lifetime exposure: 1 (1-50 days) and 2 (>50 days).

*b*. Original adjusted model (from Table 4) controlled for state, race, sex, age, education, alcohol consumption, smoking, consumption of chicken and pork products, but compared lifetime ever-exposure to never-exposure by each class of pesticide instead of the method described above.