

**Title:** Salmonellosis from Pork Products: A Quantitative Risk Assessment – **NPB #07-079**

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### **Scientific Abstract**

The risk of illness due to salmonellosis from fresh pork was estimated by modeling aspects of the pork production chain from the grower operation to consumption, in a 'farm-to-illness' risk assessment. Specifically, probabilistic modeling simulated transmission of the pathogen on-farm, the effect of various slaughter processes on both the prevalence and the level of the pathogen, the persistence of contamination through distribution, storage, and preparation, and the dose-response effect upon consumption. Scenario analysis was performed to identify components of the model that can influence the eventual risk of illness. Model results estimate that the risk of salmonellosis from the consumption of pork meat products prepared in the home is  $8 \times 10^{-7}$  (mean estimate), which translates to 0.8 illnesses per million servings. Based upon available consumption data, we estimate this would result in 8,120 cases of salmonellosis per year in the US.

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