



**Backyard chicken keeping**  
**Jennifer A. Brown, DVM, MPH**

An increasing number of communities along the Front Range are deciding whether citizens should be permitted to raise chickens in urban environments. Tri-County Health Department takes no official position on whether backyard chicken keeping should be permitted in communities in its jurisdiction. This document examines the public health significance of some common concerns associated with backyard chicken keeping.

*Bacterial diseases*

*Salmonella* and *Campylobacter* are health hazards potentially associated with backyard chicken keeping. These bacteria are carried by healthy chickens and are communicable to people through direct contact, exposure to manure, or consumption of undercooked chicken and eggs. Infection is characterized by diarrhea, vomiting, fever, and/or abdominal cramps; small children, elderly persons, and those with weakened immune systems are more susceptible to severe illness. The public health hazards potentially associated with *Salmonella* and *Campylobacter* are expected to be limited to those who are in contact with the chickens or consuming their meat or eggs. These hazards could be mitigated by educating farmers on infectious disease prevention.

*Histoplasmosis*

Histoplasmosis is another health hazard potentially associated with backyard chicken keeping. Histoplasmosis is a flu-like respiratory illness with fever, headache, muscle aches, cough, and shortness of breath. The fungal organism causing this disease is present throughout the United States and is concentrated in areas with large quantities of bird droppings; people become infected by inhalation of the organism from the environment. Therefore, it is critical that backyard chicken keepers maintain their properties to minimize the accumulation of bird droppings. Animal waste should be disposed of in a safe manner.

*Avian influenza (bird flu)*

Avian influenza (AI) is a theoretical public health hazard potentially associated with backyard chicken keeping. Birds can shed the organism in the saliva, nasal secretions and feces. AI is a viral disease of birds that is communicable to people through exposure to respiratory or fecal secretions. The risk of human AI infections in the United States is extremely low and is expected to be limited to those who are in contact with the chickens.

*Exotic Newcastle disease*

Exotic Newcastle disease (ND) is a viral disease of chickens that is not normally found in the United States. While exotic ND can cause mild, self-limiting eye infections in people, the greater concern is that introduction of exotic ND in privately owned chicken flocks can cause major economic damage in communities where commercial chicken farming is an important industry.



### *Attraction of predators*

The attraction of predators to a property is a health hazard potentially associated with backyard chicken keeping. The presence of chickens might attract urban predators such as stray dogs, foxes, and coyotes. This increases the probability that these predators might come into contact with humans in the neighborhood, raising the risk of animal bites and concern for rabies.

### *Nuisance issues*

The odor, noise, and insects potentially associated with backyard chicken keeping do not constitute health hazards. Communities are advised to have a system in place for handling public complaints regarding these issues.

### **Conclusion**

The health hazards associated with backyard chicken keeping are largely confined to the chicken keepers themselves and are unlikely to pose a threat to the health of the community at large. Moreover, the health hazards can be mitigated by education and regulation. The potential health hazards associated with backyard chicken keeping should be weighed against the potential benefits. Communities that allow backyard chicken keeping are advised to ensure that chicken keepers receive educational materials on biosecurity, infectious disease, safe food handling, and composting.

### **References**

CDC. Keeping Live Poultry. Available at <http://www.cdc.gov/Features/SalmonellaPoultry>. Last accessed January 11, 2011.

USDA. Biosecurity for Birds. Available at [http://www.aphis.usda.gov/animal\\_health/birdbiosecurity](http://www.aphis.usda.gov/animal_health/birdbiosecurity). Last accessed January 11, 2011.