

Urban Chicken Flocks in Four U.S. Cities: the Human/Chicken Interface

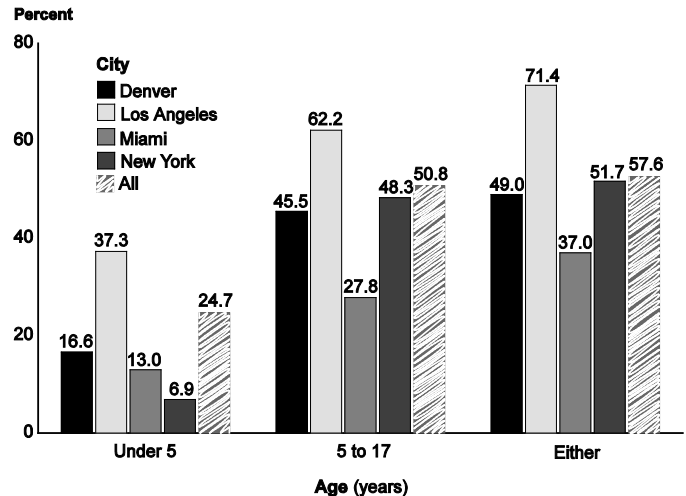
The U.S. Department of Agriculture's National Animal Health Monitoring System conducted the Poultry 2010 study. An objective of the study was to characterize urban chicken flocks in four major U.S. cities: Denver, Los Angeles, Miami, and New York City.

To collect data in Denver, Los Angeles, and Miami, feed stores were visited and a questionnaire was administered to customers who owned chickens, lived on less than 1 acre of land, and lived within the respective city's defined boundaries. The questionnaire was available in English and Spanish, and only one questionnaire per household was administered. In New York City, data were collected from members of a chicken-related club, rather than from feed store customers. The study questionnaire was available for completion on the club's Web site and also administered at a presentation to club members. A total of 147, 189, 56, and 33 questionnaires were completed in Denver, Los Angeles, Miami, and New York City, respectively.

Children in households with urban chickens

Overall, 57.6 percent of flocks were at households that had children less than 18 years old, and 24.7 percent of flocks were at households that had children under 5 years old. Los Angeles had the highest percentage of flocks at households with children under 5 years old (37.3 percent). The majority of households with children allowed the children to have contact with the chickens. In fact, children had contact with the chickens on 61.5 percent of flocks in which children under the age of 5 were present and 77.1 percent of flocks in which children between the ages of 5 and 17 were present.

Figure 1. Percentage of Flocks with Children of the Following Ages Living in the Household, by City



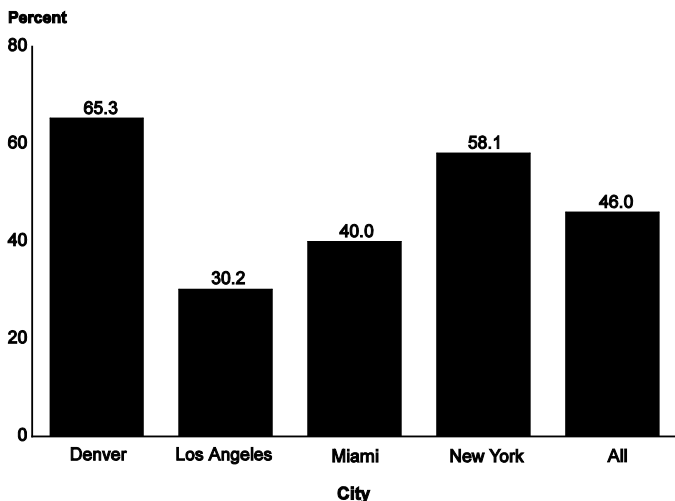
Salmonella awareness

Salmonella bacteria have been isolated from nearly all vertebrates, and *Salmonella* infections have been associated with animal and human disease. Shedding of *Salmonella* bacteria in poultry often occurs in the absence of clinical signs, sometimes for extended periods. In some cases, human illness caused by *Salmonella* has been attributed to the handling of live poultry or the consumption of poultry products. Typical signs of *Salmonella* infection in humans include fever and diarrhea. Salmonellosis in humans is typically self limiting, with most people recovering within 1 week. Rarely, severe cases can result in death.*

During the Poultry 2010 study, urban-chicken owners were asked if they were aware of any connection between poultry contact, such as contact with chicks or ducks, and *Salmonella* infection in people. About one-half of respondents (46.0 percent) were aware of a connection between poultry and *Salmonella* infection in people, ranging from 30.2 percent of respondents in Los Angeles to 65.3 percent of respondents in Denver (figure 2). Of flock owners with children in the household that had contact with the chickens, 50.0 percent were aware of a connection between poultry contact and *Salmonella* infection in people. Respondents were also asked where they learned about the connection. Common sources were television, Internet, books, and word of mouth.

*www.cdc.gov/salmonella

Figure 2. Percentage of Flocks in which the Respondent was Aware of the Connection Between Poultry Contact* and *Salmonella* Infection in People, by City



*E.g., with chicks or ducks.

Hand washing is an important measure for preventing the transmission of *Salmonella* from poultry to humans. Overall, about 9 of 10 flocks (88.3 percent) sometimes or always required people (including family) to wash their hands after handling chickens.

Urban chickens as a food source

Urban chicken flocks might provide meat and eggs for home consumption or to local food systems such as farmers' markets; therefore, it is important that urban chicken flock owners be familiar with food safety precautions.

The Centers for Disease Control provides the following guidelines to prevent foodborne illness from poultry products:

- If home slaughtered, thoroughly wash the chicken after evisceration.
- Poultry should be cooked to an internal temperature of 165°F before consumption. Use a meat thermometer to ensure foods are cooked to a safe temperature.
- Egg shells should be washed and sanitized to remove microorganisms such as *Salmonella*. Discard eggs that are cracked, broken, or leaking.
- Keep raw foods (meats, poultry, and eggs) separate from cooked foods in the refrigerator.
- Store eggs at 40°F or lower to reduce bacterial growth.
- Wash hands and slaughter/cooking surfaces often.

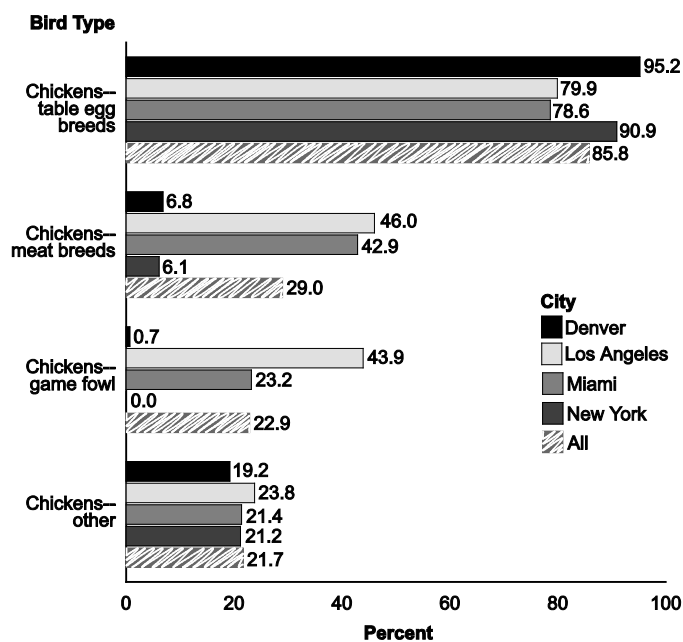
About three-fourths of flocks in Denver and New York City (75.5 and 77.4 percent, respectively) considered food source (eggs, meat) a very or extremely important reason for having chickens. In Los Angeles and Miami, about one-third of flocks (31.5 and 37.0 percent, respectively) considered food source a very or extremely important reason for having chickens.

Overall, 85.8 percent of flocks had table egg chicken breeds (e.g., Leghorn, Plymouth Rock, Rhode Island

Red) [figure 3]. About 2 of 10 flocks in Los Angeles and Miami (18.4 and 20.0 percent, respectively) sold or gave away eggs in the previous 12 months compared with about 5 of 10 flocks in Denver (49.3 percent) and about 7 of 10 flocks in New York City (71.9 percent).

About 4 of 10 flocks in Los Angeles and Miami had meat chicken breeds (e.g., Cornish, Sex-links), while about 6 percent of flocks in Denver and New York City had meat breeds (figure 3). Very few flocks (8.0 percent) had slaughtered or sold chickens for human consumption during the previous 12 months. For flocks that did slaughter chickens for human consumption, home slaughter was the most common slaughter method used.

Figure 3. Percentage of Flocks by Type of Bird and by City



Summary

About one-half of urban-chicken owners were unsure about or unaware of a connection between poultry contact and *Salmonella* infection in people. As chickens become more popular in urban areas, it will be important to provide education to new chicken owners on the prevention of *Salmonella* from poultry and poultry food products.

For more information, contact:

USDA:APHIS:VS:CEAH
 NRRC Building B, M.S. 2E7
 2150 Centre Avenue
 Fort Collins, CO 80526-8117
 970.494.7000
 Email: NAHMS@aphis.usda.gov
<http://nahms.aphis.usda.gov>

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