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## COVID-19 Outbreak Among Farm Workers at a Migrant Worker Camp—Connecticut, August 2020

On August 21, 2020, the Connecticut Department of Public Health (CTDPH) was notified of an outbreak of COVID-19 among migrant farm workers on a farm (Farm A) in Hartford County. CTDPH worked with many stakeholders including other state agencies, local government officials and non-governmental organizations to investigate and control this outbreak. This report highlights the importance of close collaboration among state and local authorities and community partners in protecting the health of vulnerable populations during the COVID-19 pandemic.

On August 11, a worker who resided in communal housing at a migrant worker camp on Farm A reported respiratory symptoms to the owner. A local community health center (CHC) tested the symptomatic farm worker, and two other farm workers residing at Farm A, for SARS-CoV-2. After review of infection control processes and touring the worker living quarters, the CHC and other collaborating agencies provided farm workers with health education materials about COVID-19 and guidance on social distancing and sanitation. The camp's owner was advised to obtain a professional cleaning service for the living quarters.

On August 13, the symptomatic farm worker received a positive test result for SARS-CoV-2; the two others tested negative. To prevent spread of illness throughout the living quarters, the camp owner placed the SARS-CoV-2 positive worker in a hotel for isolation. On August 14, a mobile testing unit tested 91 farm workers for SARS-CoV-2 (68 residing at the farm camp and 23 other farm workers); 33 (36%) tested positive. Among those who tested positive, it is unknown how many resided on Farm A. On August 20, an additional 28 workers were tested; all were negative.

Workers who tested SARS-CoV-2 positive continued working as a part of the essential critical infrastructure workforce (*1*). They were physically separated from non-positive workers for all activities including housing, cooking, toilet facilities, work in fields, work in barns, and transportation between farms. All workers wore facemasks and socially distanced. A recommendation for repeat testing was given by CTDPH to ensure control of the outbreak. The CHC mobile testing unit performed repeat testing on 33 farm workers residing at Farm A who were in quarantine on August 30; all tested negative.

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### Discussion

The CTDPH was notified of an outbreak among migrant farm workers at Farm A in Hartford County on August 21, 2020. CTDPH convened coordination calls with stakeholders in state and local government during August 21–23, 2020. State and local officials were not aware of the guidance and support provided by community health partners until a meeting with non-governmental partners on August 26. Stakeholders included the local health department, Connecticut Department of Labor, Connecticut Department of Agriculture, the Massachusetts League of Community Health Centers, Connecticut River Valley Farmworker Health Program, multiple Connecticut CHCs, local municipal officials, and local law enforcement. These groups played an integral role in identifying and providing outbreak control guidance to Farm A. In addition to providing testing, community partners delivered personal protective equipment and cleaning supplies to Farm A. The farm owner implemented infection control measures suggested by the CHCs to ensure the health and safety of the workers and that of the community.

**INSIDE** **Page**



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There were many challenges encountered during this outbreak response. A lack of clarity regarding reporting roles and responsibilities when an outbreak of COVID-19 is detected on a migrant worker farm contributed to delayed notification of both state and local public health authorities. The Connecticut General Statutes, public health code and Health Insurance Portability and Accountability Act of 1996 describe reporting requirements and release of information for public health activities (*2,3,4*).

Difficulties included identifying the agencies that had knowledge of the outbreak, steps taken to investigate it, and what guidance was provided to the owner and farm workers. After the role of state and local public health authorities was established, CTDPH was able to formalize the coordination among the group of stakeholders, the timeline of the outbreak was established, and additional control measures were identified and pursued.

This COVID-19 outbreak highlights the vulnerability of persons residing in congregate living settings such as those on Farm A (*5*). The farm workers regularly gathered for activities and dining, and shared restrooms and equipment, which increased the risk for viral transmission. Extended periods in an enclosed space, such as shared transportation between different work farms, also increased the risk of transmission (*6*).

Prevention measures such as masking, distancing, and frequent handwashing can prevent and mitigate outbreaks in congregate living facilities and shared transportation. Congregate living settings should also plan for rapid containment once COVID-19 is detected. Testing all residents immediately after a case is identified can help contain disease spread by identifying those who need to isolate due to a positive SARS-CoV-2 result or close contact with an infected individual. Repeat testing is useful for identifying those who subsequently become infected and need to isolate.

The response of the many state and local community partners contributed to the control of this COVID-19 outbreak and supported the health of these migrant workers. As a result of this outbreak, CTDPH developed and shared with stakeholders a standard operating procedure to guide the response to COVID-19 in Connecticut's agricultural sector. This protocol will help ensure a timely and coordinated response to prevent the spread of COVID-19 among migrant farm workers and help protect this potentially vulnerable and critical population in Connecticut.

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# Human Granulocytic Anaplasmosis—Connecticut, 2014–2019

Human granulocytic anaplasmosis is a tickborne zoonosis caused by the bacterium *Anaplasma phagocytophilum.* In Connecticut, humans become infected through the bite of an infected blacklegged tick, *Ixodes scapularis.* Signs and symptoms of anaplasmosis are nonspecific and may include fever, chills, headache, and malaise *(1)*. Although rare, severe illness or even death can occur. Common laboratory findings associated with anaplasmosis include thrombocytopenia, leukopenia, or increased levels of liver enzymes *(1).*

The Connecticut Department of Public Health (CTDPH) has conducted surveillance for anaplasmosis since 1995 (*2*). Through 2013, healthcare providers were required to provide clinical information by completing and returning a supplemental follow-up form sent to them by CTDPH. This clinical follow-up was discontinued in 2014 because response rates from providers were low and disease incidence was steady. Starting in 2014, laboratories were required to report only positive PCR results. For this report, a confirmed case was defined as having a positive *A. phagocytophilum* PCR.

From 2014–2019, 869 PCR positive cases of anaplasmosis were reported to CTDPH. During 2014–2018, an average of 111 cases were reported per year (range 88–128), for an average annual statewide incidence rate of 3.1 per 100,000 persons. From

2018 to 2019, cases increased nearly threefold. In 2019, 315 cases of anaplasmosis were reported, for a statewide incidence rate of 8.8 cases per 100,000 persons.

During 2014–2019, the mean age of cases was 60.0 years (range 4–96), with 43.3% aged 50-69 years, followed by those ≥70 years (30.7%). The lowest proportion of cases was found in those <20 years of age (2.8%). The majority of cases were male (60%). The distribution of annual cases by age and gender was mostly consistent (Table).

From 2014–2018, nearly 67% of all cases were reported during June, July and August. Eleven percent were reported in May (Figure). Except for 2016, cases peaked in June and July each year; in 2016, the peak occurred in November. In 2019, cases also peaked in June and July, with a small second peak in November.

The spatial distribution of cases as indicated by zip code gradually shifted from the northeastern region of Connecticut to the western region. From 2014–2018, there was a higher proportion of cases with county of residence in Windham County (17.3%) compared to 2019 (1.9%). In 2014, 32.3% of cases were reported in Windham County. In 2019, most cases were reported in Fairfield (45.4%) and Litchfield (31.7%) counties.

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**Figure: Total number of reported cases by month, Connecticut, 2014–2019.**

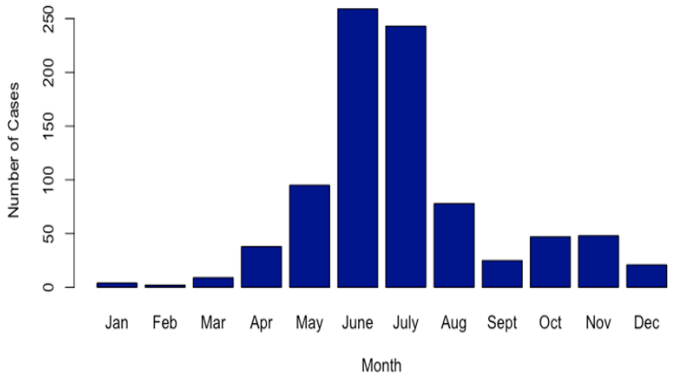


**Table: Demographic characteristics of reported anaplasmosis cases by year, Connecticut, 2014–2019**

| Characteristic, n (%) | Total (n=869) | 2014 (n=127) | 2015 (n=128) | 2016 (n=103) | 2017 (n=88) | 2018 (n=108) | 2019 (n=315) |
|---|---|---|---|---|---|---|---|
| **Gender** | | | | | | | |
| Male | 522 (60.1) | 79 (62.2) | 76 (59.4) | 61 (59.2) | 47 (53.4) | 71 (65.7) | 188 (59.7) |
| Female | 336 (38.7) | 46 (36.2) | 50 (39.1) | 39 (37.9) | 37 (42.0) | 37 (34.3) | 127 (40.3) |
| Unknown | 11 (1.3) | 2 (1.6) | 2 (1.6) | 3 (2.9) | 4 (4.5) | 0 (0.0) | 0 (0.0) |
| **Age category** | | | | | | | |
| Under 20 | 24 (2.8) | 6 (4.7) | 4 (3.1) | 3 (2.9) | 2 (2.3) | 2 (1.9) | 7 (2.22) |
| 20–49 | 185 (21.3) | 26 (20.5) | 29 (22.7) | 19 (18.4) | 19 (21.6) | 26 (14.1) | 66 (21.0) |
| 50–69 | 376 (43.3) | 53 (41.7) | 53 (41.4) | 51 (49.5) | 32 (36.4) | 51 (47.2) | 136 (43.2) |
| 70+ | 267 (30.7) | 37 (29.1) | 38 (29.7) | 29 (28.2) | 29 (33.0) | 29 (26.9) | 105 (33.3) |
| Unknown | 17 (2.0) | 5 (3.9) | 4 (3.1) | 1 (1.0) | 6 (6.8) | 0 (0.0) | 1 (0.3) |
| **County of residence** | | | | | | | |
| Fairfield | 289 (33.2) | 33 (26.0) | 37 (28.9) | 20 (19.4) | 31 (35.2) | 25 (23.1) | 143 (45.4) |
| Hartford | 36 (4.1) | 5 (3.9) | 2 (1.6) | 6 (5.8) | 8 (9.1) | 10 (9.3) | 5 (1.6) |
| Litchfield | 180 (20.7) | 12 (9.4) | 10 (7.8) | 15 (14.6) | 15 (17.0) | 28 (25.9) | 100 (31.7) |
| Middlesex | 2 (0.2) | 0 (0.0) | 1 (0.8) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.3) |
| New Haven | 89 (10.2) | 8 (6.3) | 7 (5.5) | 5 (4.9) | 6 (6.8) | 20 (18.5) | 43 (13.7) |
| New London | 67 (7.7) | 15 (11.8) | 16 (12.5) | 14 (13.6) | 4 (4.55) | 10 (9.3) | 8 (2.5) |
| Tolland | 20 (2.3) | 2 (1.6) | 0 (0.0) | 6 (5.8) | 3 (3.4) | 6 (5.6) | 3 (1.0) |
| Windham | 102 (11.7) | 41 (32.3) | 26 (20.3) | 15 (14.6) | 8 (9.1) | 6 (5.6) | 6 (1.9) |
| Unknown | 84 (9.7) | 11 (8.7) | 29 (22.4) | 22 (21.4) | 13 (14.8) | 3 (2.8) | 6 (1.9) |

## Discussion

In 2019, there was a nearly 3-fold increase in the number of reported anaplasmosis cases compared to 2014–2018. While demographic and temporal trends were similar from year to year, there were notable changes in spatial distribution of cases by county and zip code of residence.

During 2014–2019, distribution of cases by age and gender parallel those previously reported by CTDPH and other health agencies *(2,3).*The higher number of cases observed in older age groups may reflect an association between disease severity and age and therefore increased testing in this population; during 2008–2012, national data showed hospitalizations, life-threatening complications, and case fatality rates increased with age (*1*).

The seasonal distribution of cases also mirrors what has been previously observed *(3)*. Most reported cases of anaplasmosis occurred during summer months, resembling the temporal distribution of other tick-borne diseases transmitted by the same vector, such as Lyme disease. The peak in cases corresponds with the feeding stage of nymphal *I. scapularis* and increased outdoor human activity. The smaller fall peak that was observed in some years corresponds with adult tick activity *(3)*.

Shifts in underlying environmental factors, such as forest fragmentation and climate change may impact habitat suitability for tick vectors and could have caused the shift in spatial distribution seen in 2019. It is also possible that the shift may be an artefact of case testing and reporting. Changes in provider ordering patterns could also account for differences in case counts in eastern and western Connecticut during 2014–2019.

Results may also reflect a true increase in cases. In recent years, health departments in other New England states also observed increases in anaplasmosis cases *(4)*. Surveillance should include enhanced clinical follow-up, systematic active statewide tick surveillance to understand changes in distribution and abundance of *I. scapularis,* and pathogen testing of collected ticks to evaluate changes in the proportion carrying *A. phagocytophilum*. The Connecticut Agricultural Experiment Station has conducted passive tick surveillance since 1990 and began active statewide surveillance in 2019 (*5*).

### Key Messages for Providers

In 2020, clinical follow-up conducted by CTDPH resumed. Healthcare providers' assistance in collecting clinical data for anaplasmosis is critical to further characterize the full clinical spectrum and epidemiology of this disease in Connecticut. Providers should be aware of the increased incidence of anaplasmosis during summer months and late fall and remain cognizant that symptoms of anaplasmosis pose similarities to those of other diseases, including COVID-19 and influenza.

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