COVID-19 Update August 19, 2021

As of **August 18, 2021**, the total of laboratory-confirmed and probable COVID-19 cases reported among Connecticut residents is **365425**, including **332789** laboratory-confirmed and **32636** probable cases. **Three hundred forty-four** patients are currently hospitalized with laboratory-confirmed COVID-19. There have been **8330** COVID-19-associated deaths.

| Overall Summary	Total*	Change Since Yesterday
COVID-19 Cases (confirmed and probable)	365425	+534
COVID-19 Tests Reported (molecular and antigen)	10260526	+15865
Daily Test Positivity*		3.37%
Patients Currently Hospitalized with COVID-19**	344	-4
	Total	Change since 8/12/21
COVID-19-Associated Deaths	8330	+23

*Includes confirmed plus probable cases

**Includes 239 unvaccinated/unknown cases (70% of total cases)

Cases
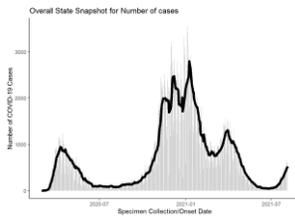
Total Cases: 365,425

Admissions
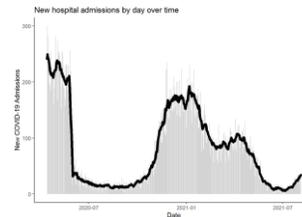
Total Hospitalizations: 37,665

Hospital Census
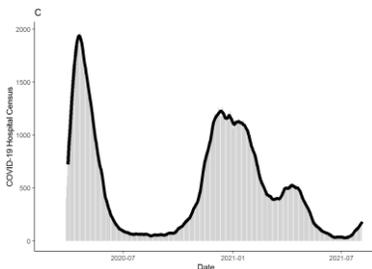
Hospital Census: 8/18/2021: 344

Deaths

Total Deaths: 8330

All data are preliminary and subject to change.
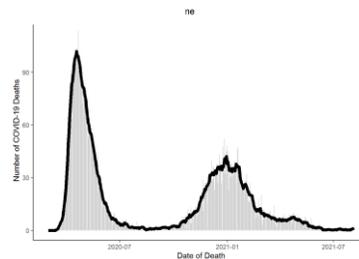
COVID-19 Cases and Associated Deaths by County of Residence as of 08/18/21.

County	COVID-19 Cases		COVID-19-Associated Deaths	
	Confirmed	Probable	Confirmed	Probable
Fairfield County	94,735	9,624	1,782	428
Hartford County	82,534	6,435	2,014	439
Litchfield County	13,447	1,841	260	39
Middlesex County	12,249	1,285	290	87
New Haven County	86,391	10,280	1,855	296
New London County	22,398	1,509	352	101
Tolland County	9,153	968	150	39
Windham County	10,832	516	154	43
Pending address validation	1,050	178	1	0
Total	**332789**	**32636**	**6858**	**1472**

National COVID-19 statistics and information about preventing spread of COVID-19 are available from the Centers for Disease Control and Prevention.

Day-to-day changes reflect newly reported cases, deaths, and tests that occurred over the last several days to week. All data in this report are preliminary; data for previous dates will be updated as new reports are received and data errors are corrected. Hospitalization data were collected by the Connecticut Hospital Association. Deaths reported to either OCME or DPH are included in the daily COVID-19 update.

COVID-19 Cases and Deaths Over Time

The chart below shows the number of new COVID-19 cases reported to CT DPH by week of specimen collection or onset of illness. Case data now includes probable cases based on positive antigen test results. During the past two weeks (August 01-14), there were 8124 new COVID-19 cases, including cases among people residing in the community and congregate settings, such as nursing homes, managed residential communities, and correctional facilities.

Number of COVID-19 Cases among Connecticut Residents by Week of Specimen Collection or Onset
August 07, 2021-May 29, 2021
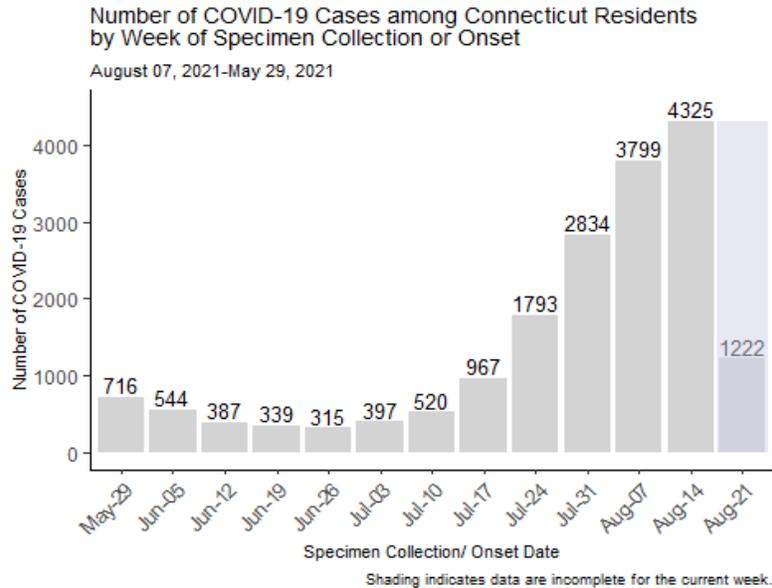
The graph below shows the number of COVID-19 associated deaths since August 1, 2020 by week of death and whether the person was residing in a congregate setting, such as a nursing home, managed residential community, or correctional facility.


COVID-19 Deaths by Date of Death

All data are preliminary and subject to change.

Community Transmission of COVID-19

Among 8124 new COVID-19 cases with specimen collection or onset date during August 01-14, there were 8075 cases among people living in community settings, as shown in the map below. This corresponds to an average of 16.18 new COVID-19 cases per day per 100,000 population. Cases among people residing in nursing homes, assisted living facilities, and correctional facilities are excluded. Darker colors indicate towns with more cases.

During this two-week period, there were more than 100 new COVID-19 cases in 24 towns.

Number of COVID-19 Cases among People Living in Community
Settings by Town with Specimen Collection or Onset Date
During August 01-14

Map does not include 32 *cases pending address validation*

Because towns with larger populations are likely to have more cases, it is also important to look at the number of new cases per 100,000 population. The maps below show the average number of new cases per 100,000 population per day, with darker colors indicating higher rates. Cases among people residing in nursing homes, assisted living facilities, and correctional facilities are excluded.

Jul 18 - Jul 31   Jul 25 - Aug 07   Aug 01 - Aug 14

Cases/100k
30
20
10
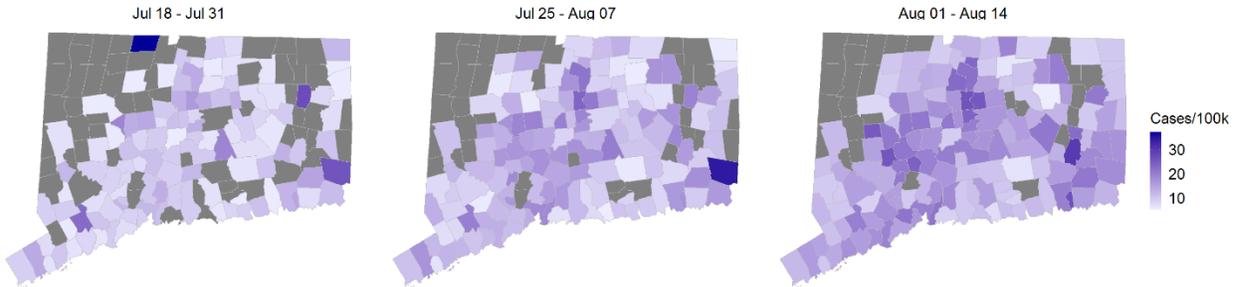
Among towns with at least 5 new cases during August 01-14, 73 towns had an average rate of 15 or more cases per 100,000 population per day, shown in red in the map below.

Average Daily Rate of COVID-19 Cases among People Living in Community Settings per 100,000 Population by Town
with Specimen Collection or Onset Date During August 01-14

Average COVID-19 Cases per 100,000 Population per Day
- <5 cases per 100,000 or <5 reported cases
- 5-9 cases per 100,000
- 10-14 cases per 100,000
- 15 or more cases per 100,000

Map does not include 32 *cases pending address validation*

All data are preliminary and subject to change.
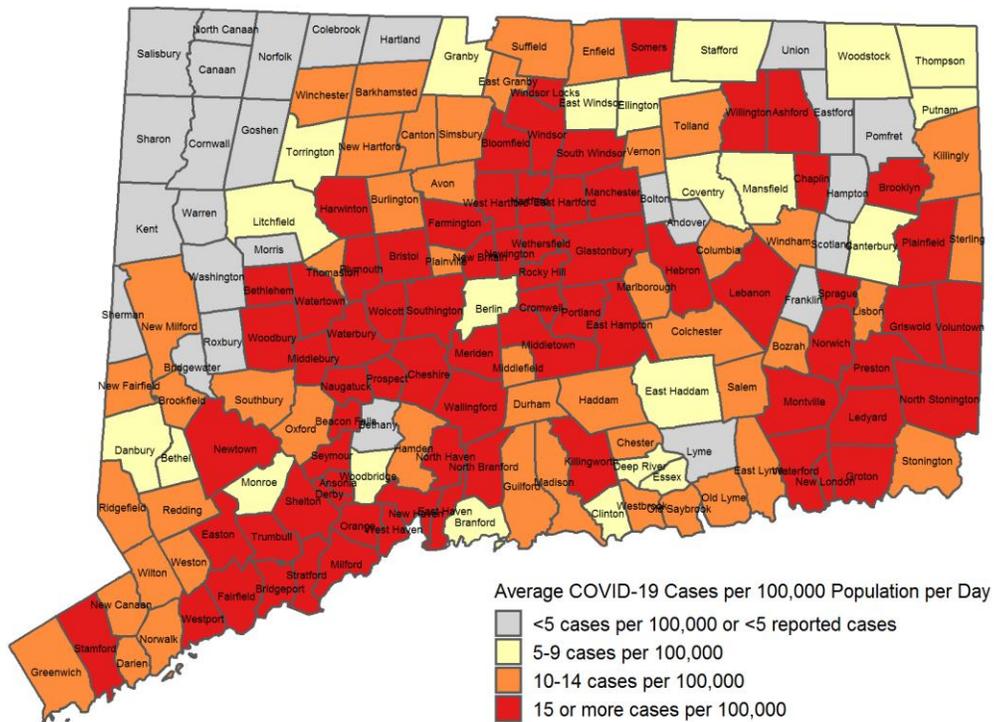
Epidemiology of COVID-19 by Vaccine Status

Methodology

Since February 2021, cases of COVID-19 among fully vaccinated persons (e.g., vaccine breakthrough cases) were identified based on a medical provider report to DPH identifying such cases. Recently, DPH has developed a process that matches COVID-19 case data with the vaccine registry to determine which cases meet the definition of being fully vaccinated and are also vaccine breakthrough cases. A case of COVID-19 in a fully vaccinated person (e.g., vaccine breakthrough case) is defined as a person who has a positive PCR/NAAT or antigen test in a respiratory specimen collected ≥14 days after completing the final dose of an FDA-authorized COVID-19 vaccine series and who did not have a previously positive COVID-19 test <45 days prior to the positive test currently under investigation. This newer process provides more accurate and complete data on the vaccine status of persons who have tested positive for COVID-19.

Data

Using this new process, as of August 18, 2021, 5,857 cases of COVID-19 among fully vaccinated persons in Connecticut have been identified. Of the 2,158,122 persons who have completed their vaccine series, less than 0.28 percent of Connecticut's fully vaccinated persons have contracted the virus.

Forty-five COVID-19 related deaths have occurred among the 5,857 fully vaccinated persons confirmed with COVID-19. These deaths represent 5.0% of all COVID-19 deaths since 2/9/2021.

The table below shows cases and deaths among fully vaccinated persons by age group.

Cases and Deaths Among Fully Vaccinated Persons by Age Group

	# (%) Cases	# (%) Deaths
Age groups		
<=15	56 (1%)	
16-24	648 (11.1%)	
25-34	899 (15.3%)	
35-44	922 (15.7%)	1 (2.2%)
45-54	950 (16.2%)	1(2.2%)
55-64	997 (17%)	5 (11.1%)
65-74	696 (11.9%)	5 (11.1%)
75+	689 (11.8%)	33 (74.3%)
TOTAL	5857	45

All data are preliminary and subject to change.

The figures below show the difference in COVID-19 case rates, death rates and hospitalization rates based on the vaccine status of affected persons from February–August 2021. For hospitalizations, data from COVID-NET, which focuses on hospitalizations among residents of New Haven and Middlesex counties, are used because they are the most complete and up-to-date.

The data show that COVID-19 case rates, hospitalization rates and death rates have consistently been higher among unvaccinated persons compared to fully vaccinated persons. All data are preliminary and subject to change.

COVID-19 Cases

Case Rate by vaccination status, CT
As of August 18, 2021

All data are preliminary and subject to change.

COVID-19 Deaths

Death Rate by vaccination status, CT
As of August 18, 2021

COVID-19 Hospitalization Rates

Rate of Hospitalization among Vaccinated and Unvaccinated* Persons by Month of Hospitalization, Middlesex and New Haven Counties, CT, as of August 17, 2021
*Includes partially vaccinated

All data are preliminary and subject to change.
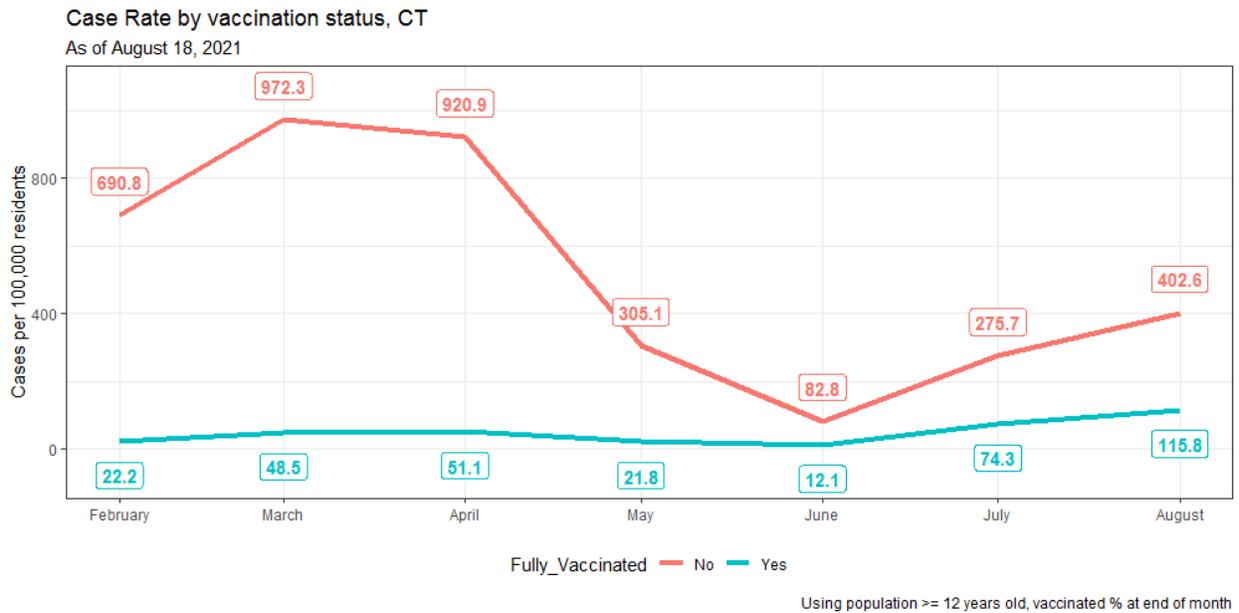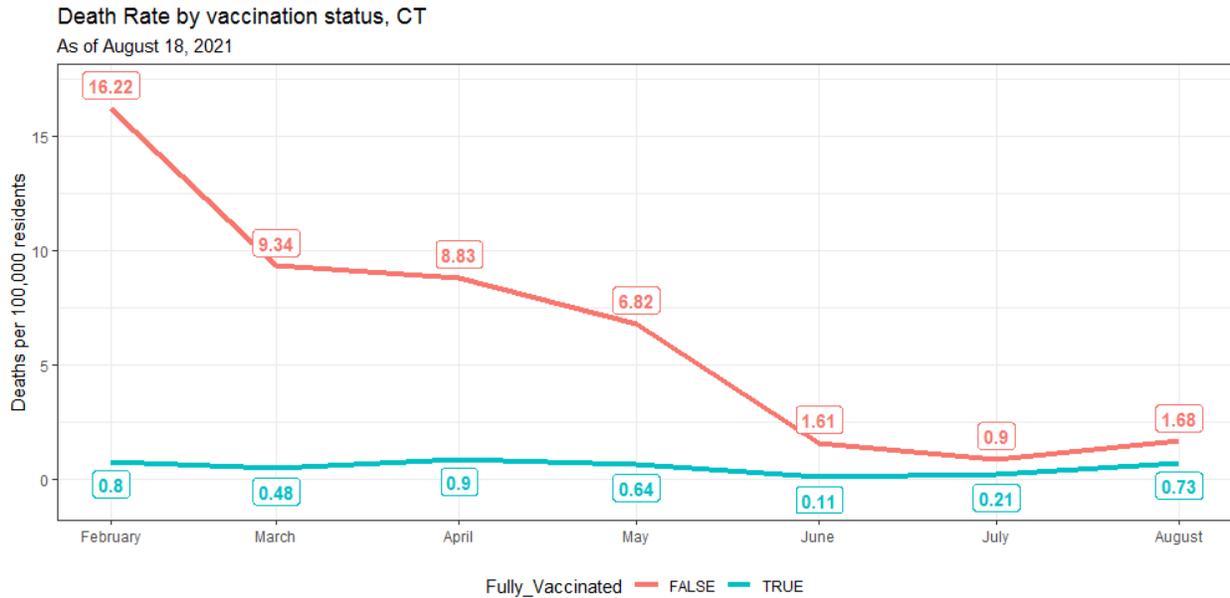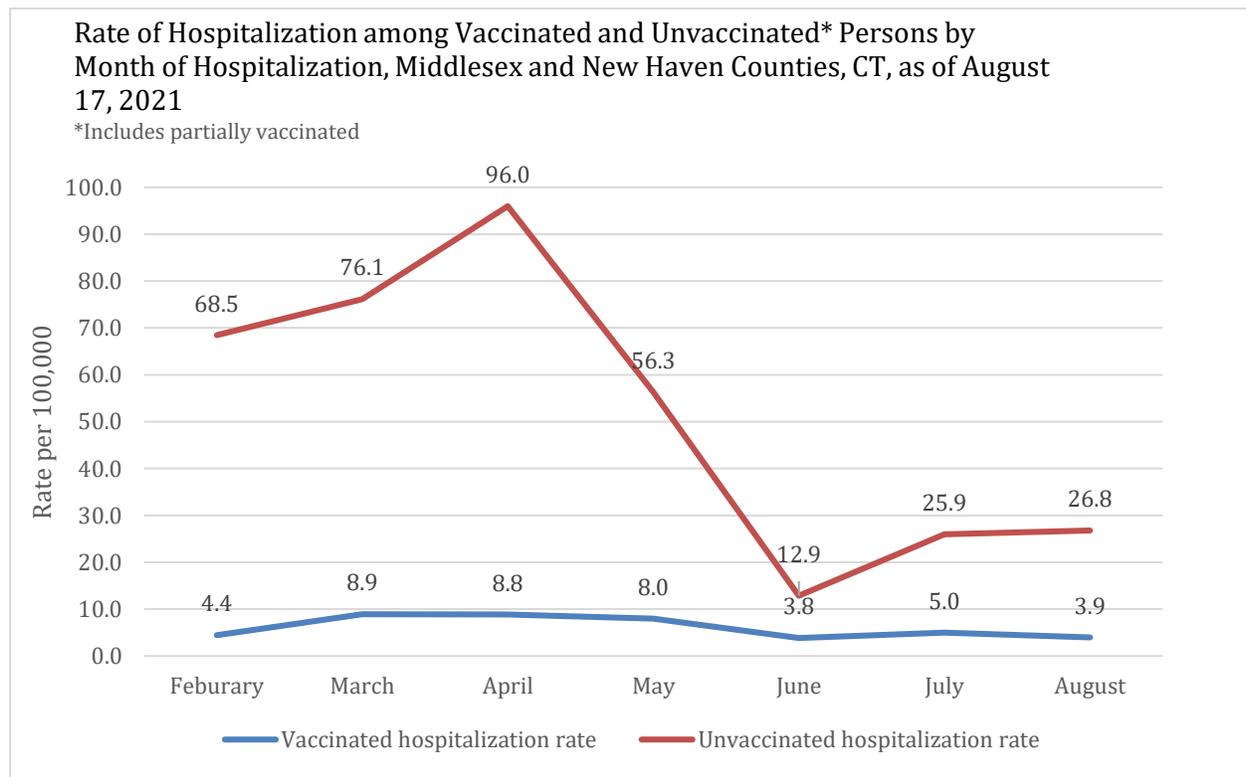
COVID-19 Hospitalization Rates

SARS-CoV-2 Variant Surveillance

The Centers for Disease Control and Prevention (CDC) have identified three types of SARS-CoV-2 variants: variants of interest, variants of concern and variants of high consequence. The definitions for the three different variant categories and substitutions of therapeutic concern can be found here: SARS-CoV-2 Variants of Concern | CDC.

Different terminology has been developed by international scientists for naming SARS-CoV-2 variants. Recently, the World Health Organization (WHO) developed new labels for describing these variants to the public. Below, both the Pango lineage and sub-lineages (used by CDC) and the WHO label are listed (if available) for each variant described.

Data provided are from the Global Initiative for Sharing Avian Influenza Data (GISAID). GISAID is a global science initiative established in 2008 that provides open-access to genomic data of influenza viruses and the SARS-CoV-2 virus responsible for the COVID-19 pandemic. Laboratories performing whole genome sequencing are encouraged to share their data on this website. More information about GISAID can be found at GISAID - Initiative. This data source provides the ability to monitor all variants of the SARS-CoV-2 virus that are circulating and might be identified in the future.

Below are data on variants of concern, variants of interest and substitutions of therapeutic concern identified among Connecticut residents. No variants of high consequence have been defined by CDC to date.

Data are from GISAID as of 08/19/2021 and represent sequences from specimens with dates of collection from 3/2/2020–8/10/2021. **The total number of SARS-CoV-2 sequences in GISAID for Connecticut residents are 9,180.**

	Number	Percentage
Variants of Concern		
B.1.1.7 (Alpha)	3,370	36.7%
B.1.351/B.1.351.2/B.1.351.3 (Beta)	38	0.4%
B.1.617.2/AY.1/AY.2/AY.3/AY.4/ AY.5/AY.6/AY.7/AY.8/AY.9/AY.10/ AY.11/AY.12 (Delta)	569	6.2%
P.1/P.1.1/P.1.2 (Gamma)	183	2.0%
Variants of Interest		
B.1.525 (Eta)	21	0.2%
B.1.526 (Iota)	1,126	12.3%
B.1.617.1 (Kappa)	3	0.03%
B.1.617.3	0	0%

All data are preliminary and subject to change.

SARS-CoV-2 Variant Surveillance, continued.

The plot below, based on data extracted from GISAID on 8/19/2021, shows the change in proportion of circulating variants of concern by week. Data include sequences from specimens with dates of collection from 1/1/2021–8/10/2021.

Proportion of Circulating Variants of Concern, CT
Retrieved from GISAID data August 19, 2021
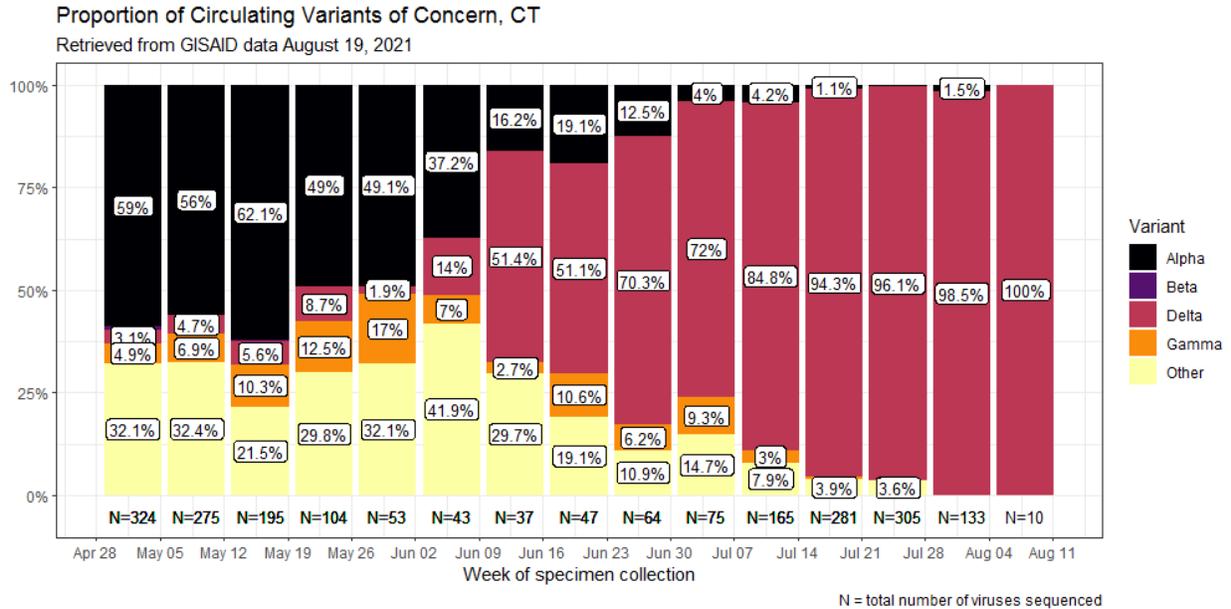
Connecticut nursing homes are required by the Connecticut Department of Public Health (DPH) and the Centers for Medicare and Medicaid Services (CMS) to report on the impact of COVID-19 on their residents and staff through CDC's National Healthcare Safety Network (NHSN). CT DPH uses data submitted to NHSN to produce a weekly nursing home report to depict recent COVID-19 activity in nursing homes. The following graph and table provide a quick overview of COVID-19 in CT nursing homes. For the complete DPH nursing home report, please see Nursing Home and Assisted Living Facilities Data.

Nursing Homes with Positive Staff or Residents October 6, 2020–August 17, 2021[1,2]
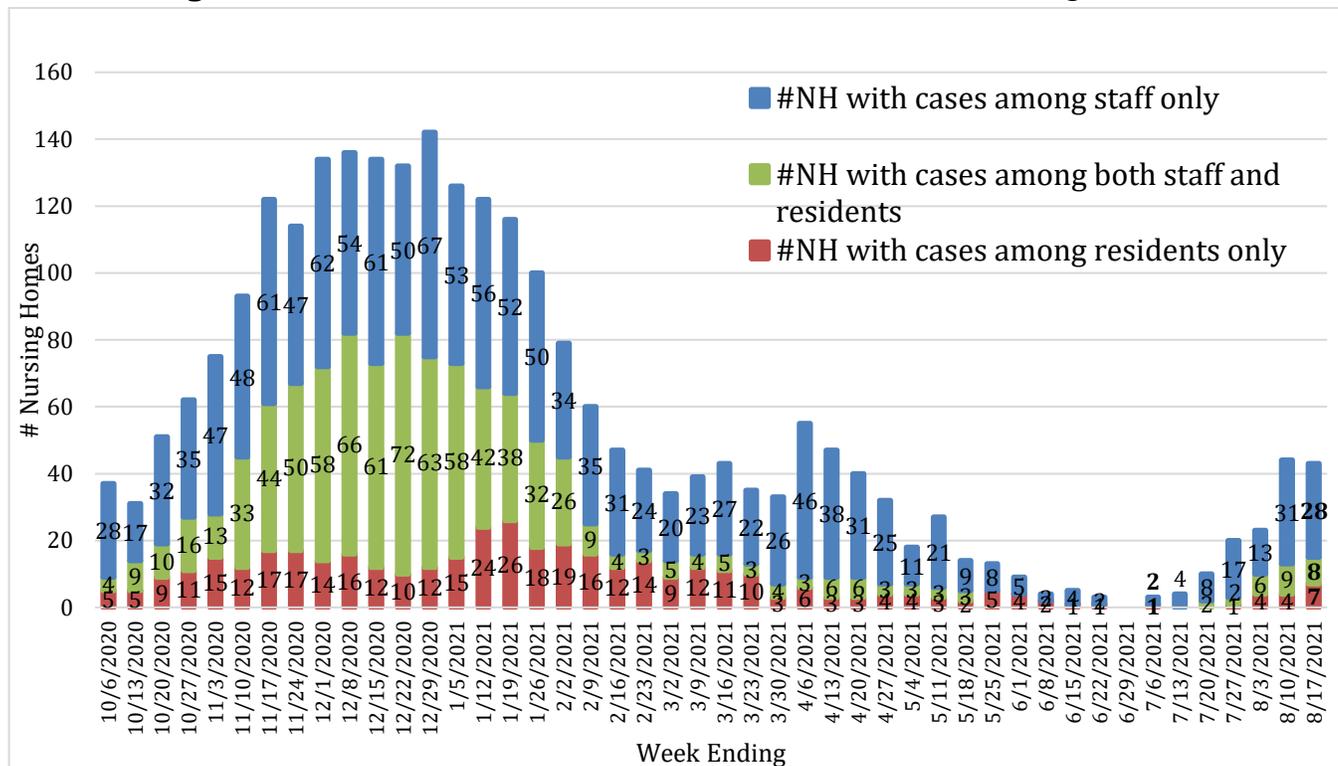
[1] For more detailed information on COVID-19 reporting and NHSN, please see here.
[2] Similar to DPH, CMS makes COVID-19 nursing home data, including vaccination rates, publicly available. Please see CMS' COVID-19 Nursing Home Data website.

Table 1: Statewide COVID-19 Vaccination coverage among nursing home residents and staff from NHSN[1,2]

|	Statewide COVID-19 Vaccination Rate Data as of August 8, 2021	
	Resident Vaccination Rates N= 203 homes	Staff Vaccination Rates N= 204 homes
Average Vaccination Rate	91%	74%
Median Vaccination Rate	92%	75%
Range of Vaccination Rates	62-100%	37-100%
% of the reporting nursing homes with vaccination rate $\geq$ 75%	97%	50%

[1] NHSN vaccine reporting instructions for nursing homes can be found here.
[2] Similar to DPH, CMS makes COVID-19 nursing home data, including vaccination rates, publicly available. Please see CMS' COVID-19 Nursing Home Data website.

All data are preliminary and subject to change.

**COVID-19 Molecular and Antigen Tests during August 01-14**

Among 171467 molecular and antigen tests for COVID-19 with specimen collection date during August 01-14, 158742 (93%) tests were conducted among people who did not reside in congregate settings (including nursing homes, assisted living, and correctional facilities). Of these 158742 tests, 5690 (4%) were positive. The map below shows the number of molecular and antigen COVID-19 tests by town with specimen collection date during August 01-14 that were conducted among community residents.

Number of Molecular and Antigen Tests for COVID-19 among
People Living in Community Settings by Town
with Specimen Collection Date During August 01-14
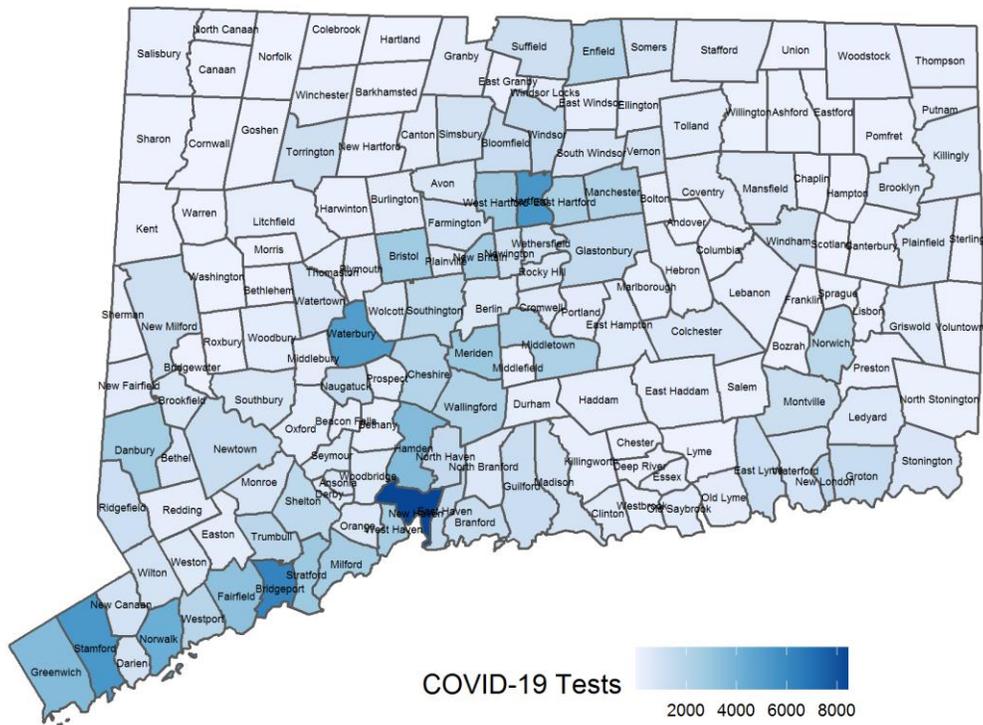
Map does not include tests pending address validation

All data are preliminary and subject to change.

Age Distribution of COVID-19 Cases with Specimen Collection or Onset During August 01-14, 2020

Number of New COVID-19 Cases by Age Group with Collection or Onset during August 01-14

All data are preliminary and subject to change.
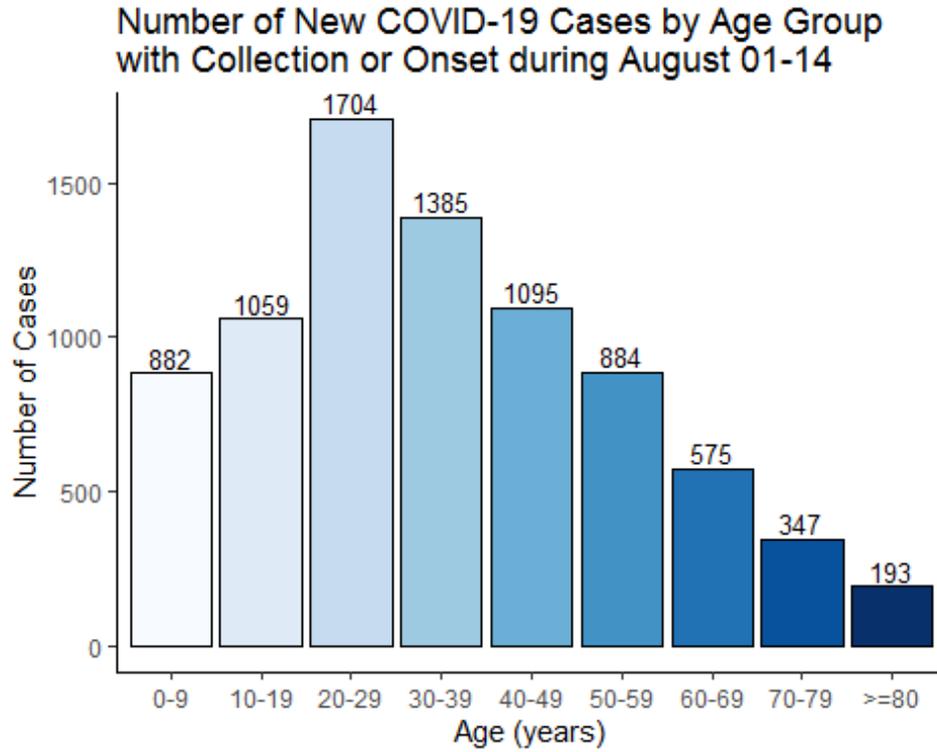
Average Daily Incidence by Age Group

The chart below shows the average number of new COVID-19 cases per day per 100,000 population by age group. The rates in this chart are calculated by averaging the number of new cases diagnosed each day during the previous two weeks, dividing by the annual population in each age group, and then multiplying by 100,000.

Average daily rate of COVID-19 cases by age group

As of 08/18/2021

All data are preliminary and subject to change.
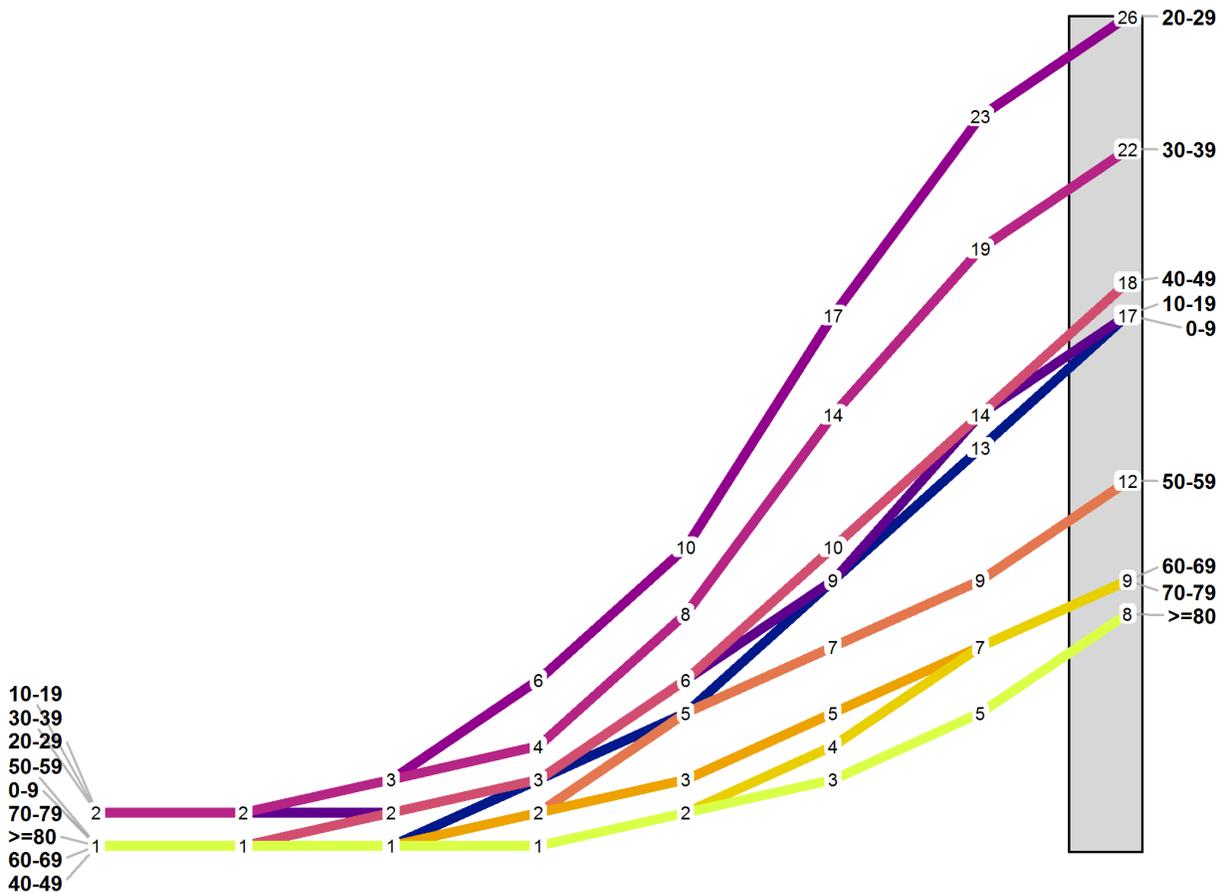
Average Daily Incidence by County

The chart below shows the average number of new COVID-19 cases per day per 100,000 population in the state of Connecticut and for each Connecticut county. The rates in this chart are calculated by averaging the number of new cases diagnosed each day during the previous two weeks, dividing by the annual estimated population, and then multiplying by 100,000.

Average daily rates of COVID-19 cases by county
As of 08/18/2021

All data are preliminary and subject to change.
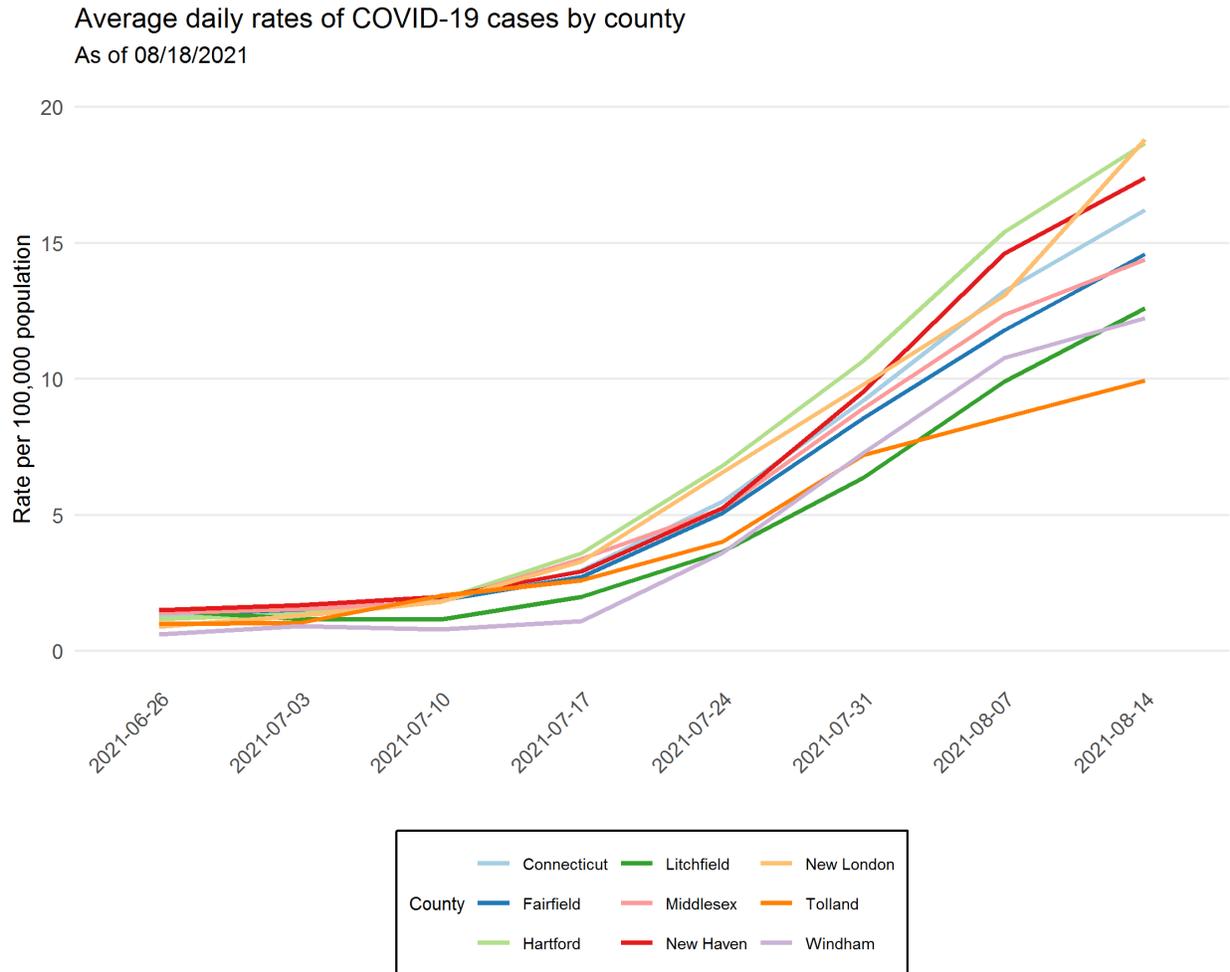
Cumulative Number of COVID-19 Cases and COVID-19-Associated Deaths by Date

*Test results may be reported several days after the result. Data are incomplete for most recent dates shaded in grey. Data from previous dates are routinely updated.*

Number of Confirmed and Probable COVID-19 Cases by Date
As of 08/18/2021

Date of Specimen Collection (confirmed)
or Symptom Onset/Postive Antigen Test Date (probable)

Probable   Confirmed

Number of COVID-19-Associated Deaths by Date of Death
As of 08/18/2021

Date of Death

Probable   Confirmed

16

All data are preliminary and subject to change.
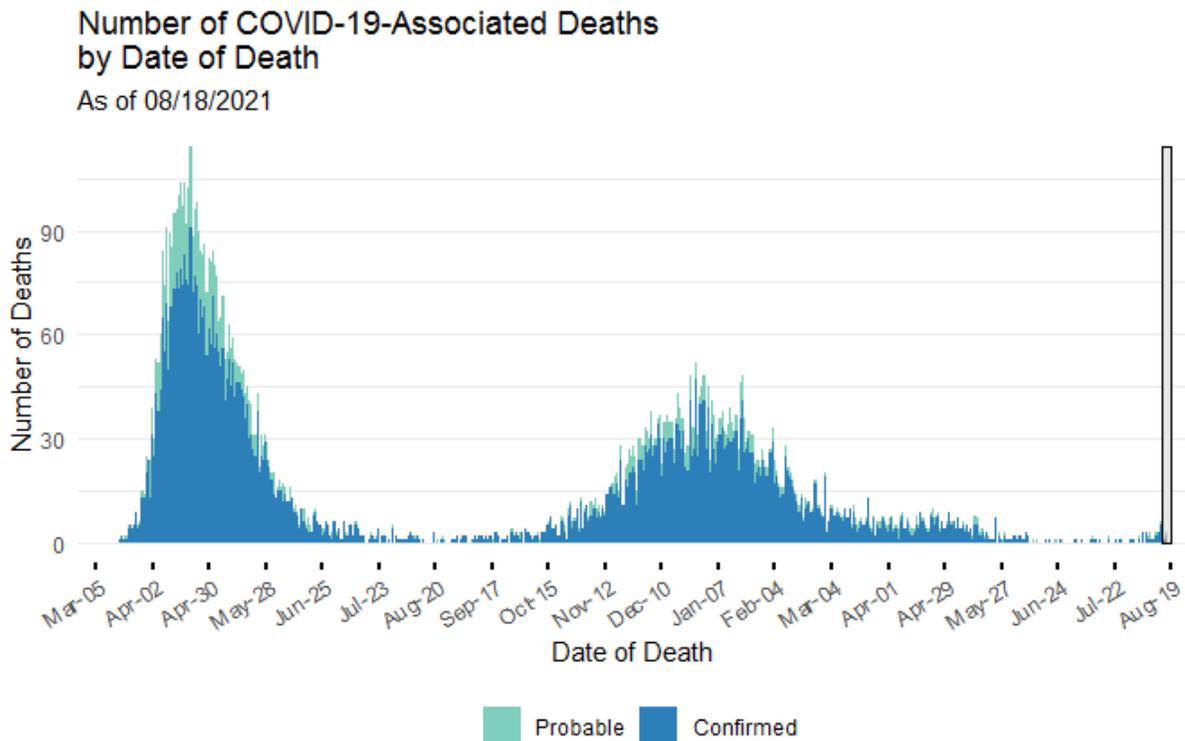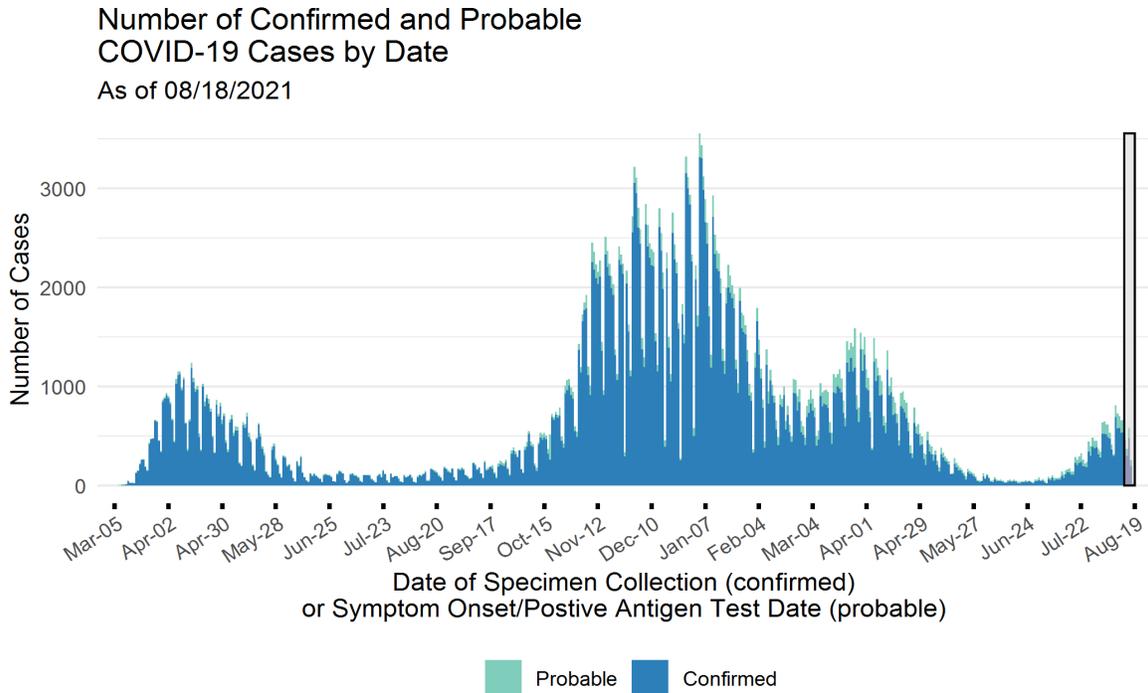
Hospitalization Surveillance

The map below shows the number of patients currently hospitalized with laboratory-confirmed COVID-19 by county based on data collected by the Connecticut Hospital Association. The distribution is by location of hospital, not patient residence. The labels indicate the number of patients currently hospitalized with the change since yesterday in parentheses.

Patients Currently Hospitalized by Connecticut County

Distribution by location of hospital not patient residence. Data from the Connecticut Hospital Association.
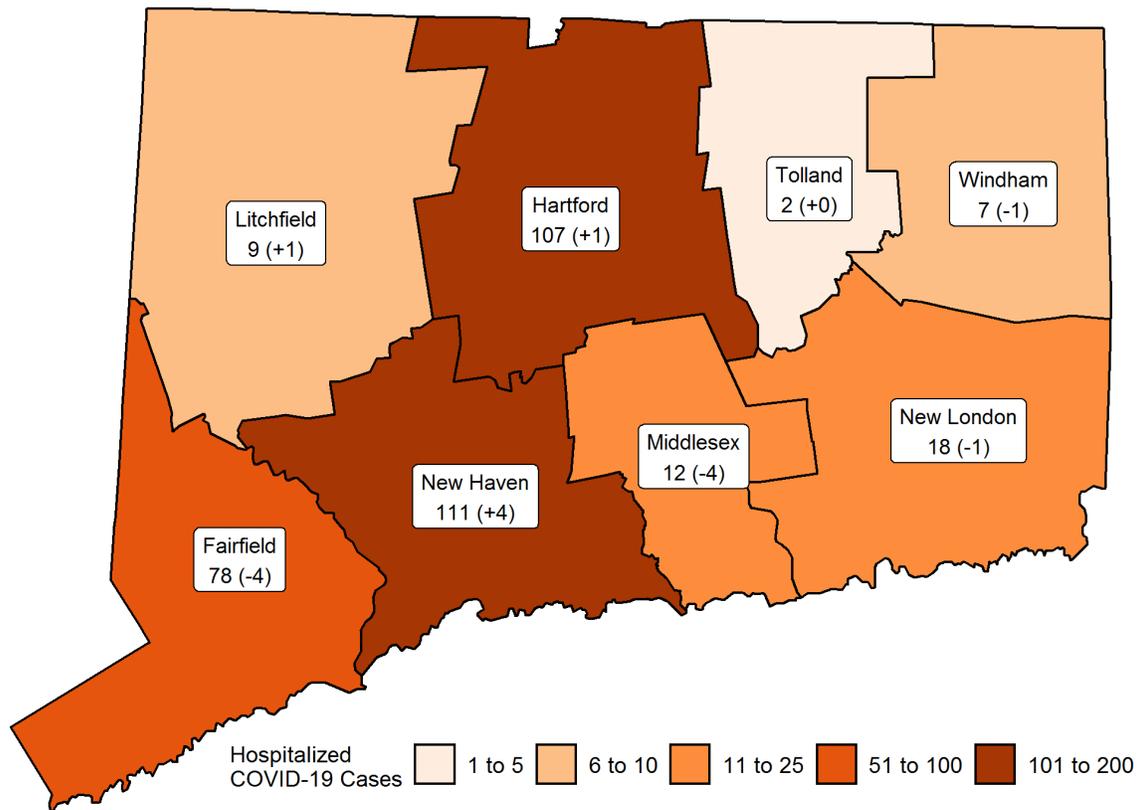
More information about hospitalized cases of COVID-19 in New Haven and Middlesex Counties is available from COVID-NET.

All data are preliminary and subject to change.

COVID-19 Hospital Census in Connecticut

The chart below shows the COVID-19 hospital census, which is the number of patients currently hospitalized with laboratory-confirmed COVID-19 on each day. Data were collected by the Connecticut Hospital Association and are shown since August 1, 2020.

Number of patients hospitalized with laboratory-confirmed COVID-19 by Day

All data are preliminary and subject to change.
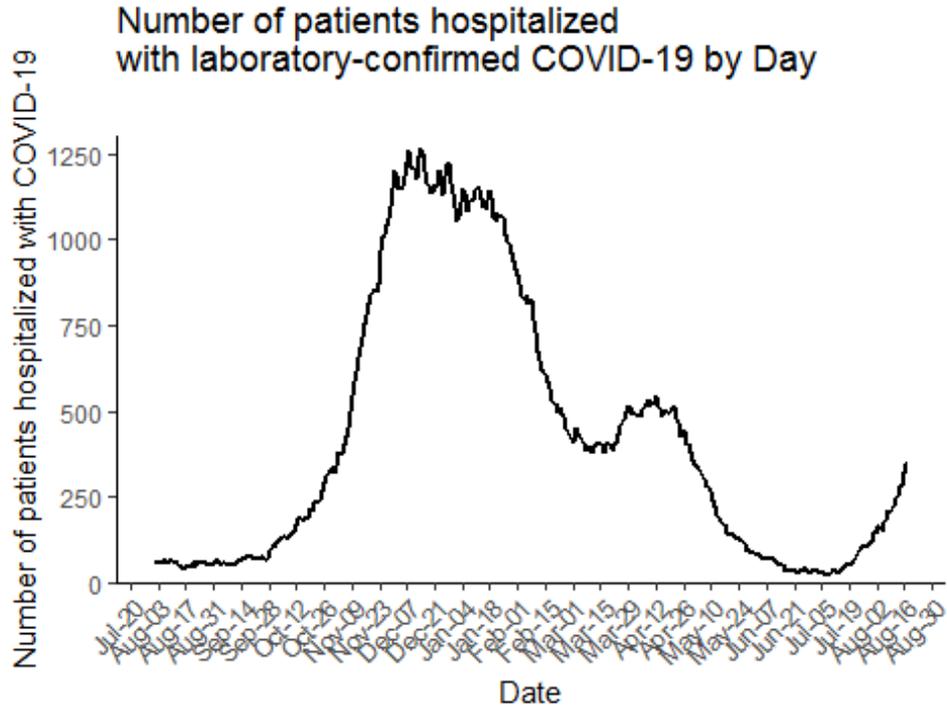
Daycare Surveillance

Licensed daycare providers are required to report cases of COVID-19 among attendees and staff to the Department of Public Health (DPH) and the local health department. This figure shows the number of cases among daycare attendees and staff reported to DPH since September 1, 2020. Data are preliminary and like other passive surveillance systems, under reporting occurs and the true incidence of disease is more than the number of cases reported.


Daycare Associated Cases

All data are preliminary and subject to change.
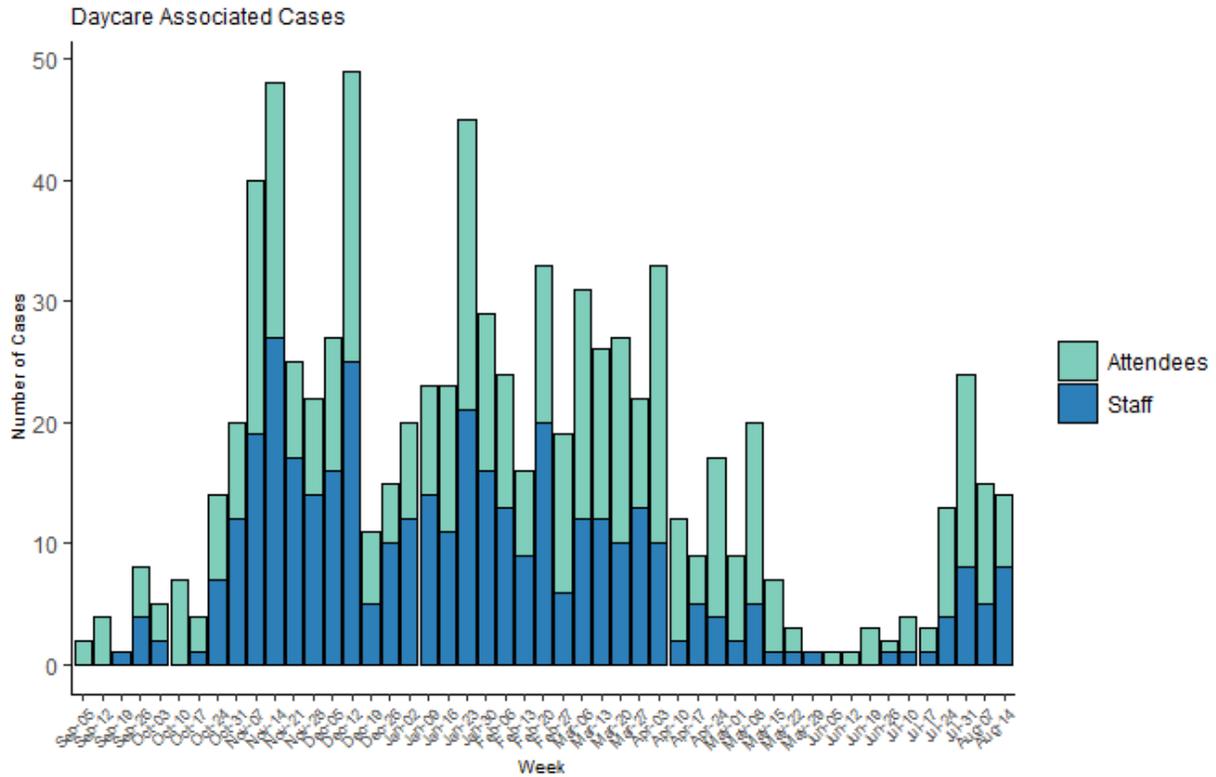
Laboratory Surveillance

Molecular Tests

To date, DPH has received reports on a total of 9,410,623 molecular COVID-19 laboratory tests; of these 9,206,955 test results were received via electronic laboratory reporting (ELR) methods from commercial laboratories, hospital laboratories, and the Dr. Katherine A. Kelley State Public Health Laboratory. The chart below shows the number of tests reported via ELR by date of specimen collection and test result.

Test results may be reported several days after specimen collection. Data are incomplete for most recent dates shaded in grey. Data for previous dates are routinely updated.

Number of Molecular Laboratory Tests for COVID-19 Reported via ELR by Specimen Collection Date
As of 08/18/2021

Shading indicates data are incomplete for the current week.
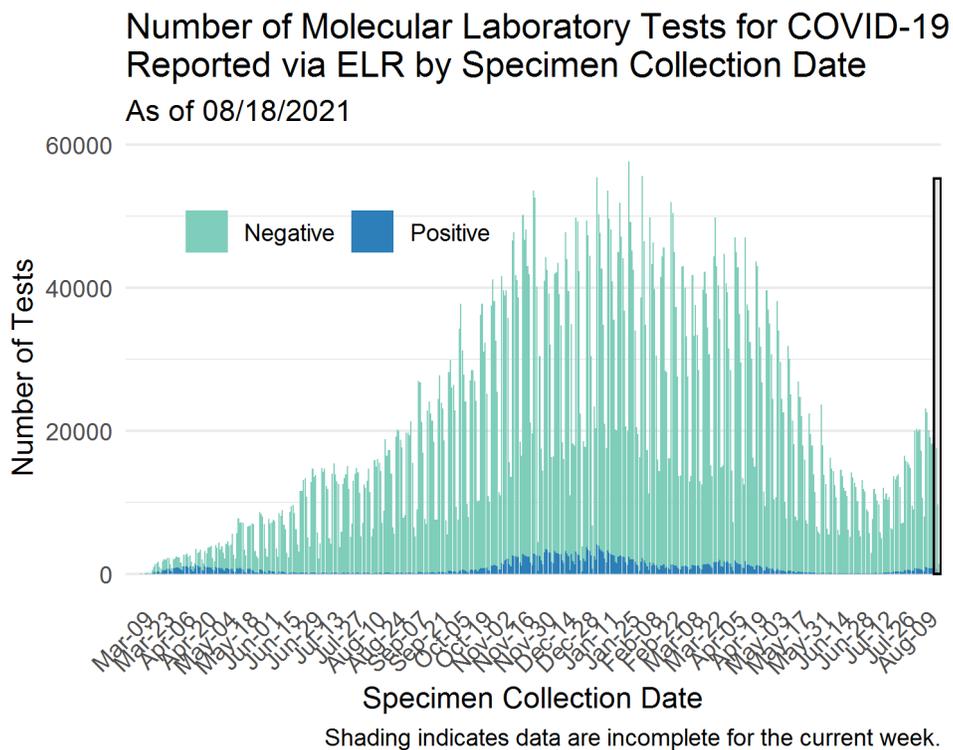
Testing of recently collected specimens is ongoing and does not reflect a decrease in testing. Chart only includes test results received by electronic laboratory reporting.

ELR = Electronic Laboratory Reporting

Antigen Tests

To date, DPH has received reports on a total of 849,903 COVID-19 antigen laboratory tests. The chart below shows the number of antigen tests reported to DPH by specimen collection date and test result.

*Test results may be reported several days after specimen collection. Data are incomplete for most recent dates shaded in grey. Data for previous dates are routinely updated.*

Number of Antigen Tests for COVID-19 Reported by Specimen Collection Date
As of 08/18/2021

Shading indicates data are incomplete for the current week.
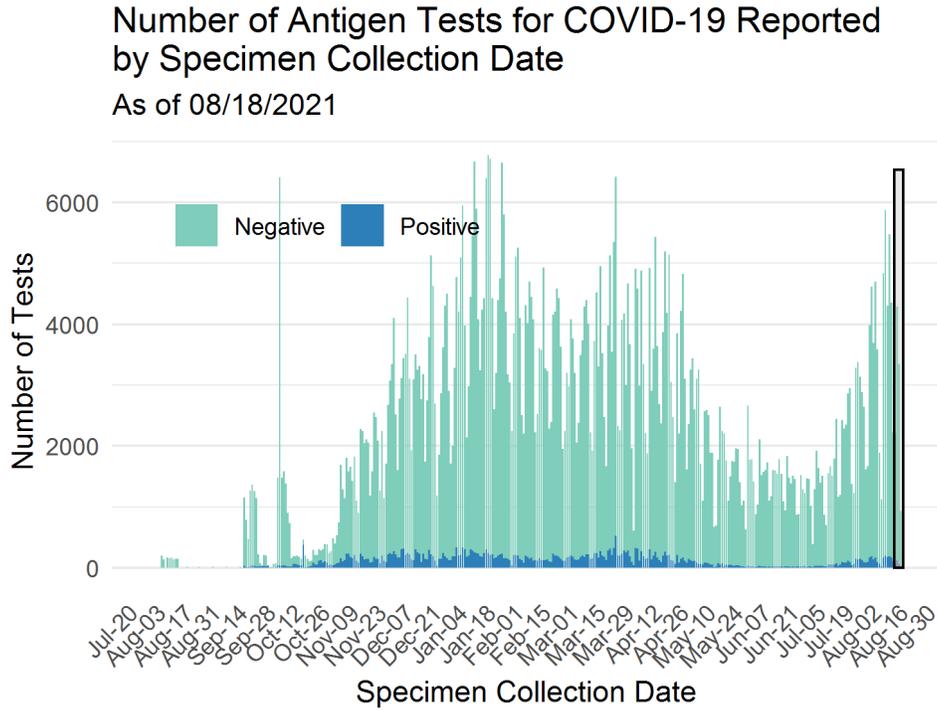
Testing of recently collected specimens is ongoing and does not reflect a decrease in testing.

Characteristics of COVID-19 Cases and Associated Deaths

Counts may not add up to total case count because demographic data may be missing.

Number of COVID-19 Cases by Age Group
As of 08/18/2021

Age (years)	Number of Cases
0-9	23244
10-19	43819
20-29	64750
30-39	57115
40-49	50847
50-59	53859
60-69	35631
70-79	18320
>=80	16922

Number of COVID-19-Associated Deaths by Age Group
As of 08/18/2021

| Age (years)	Number of Cases
0-9	1
10-19	3
20-29	10
30-39	45
40-49	155
50-59	473
60-69	1102
70-79	1865
>=80	4676
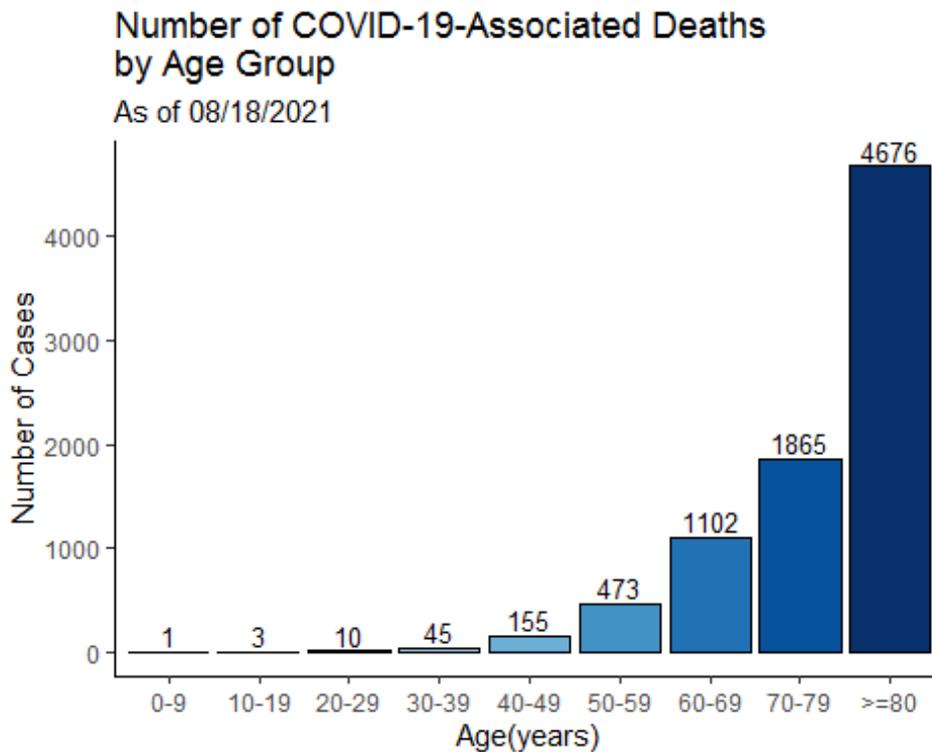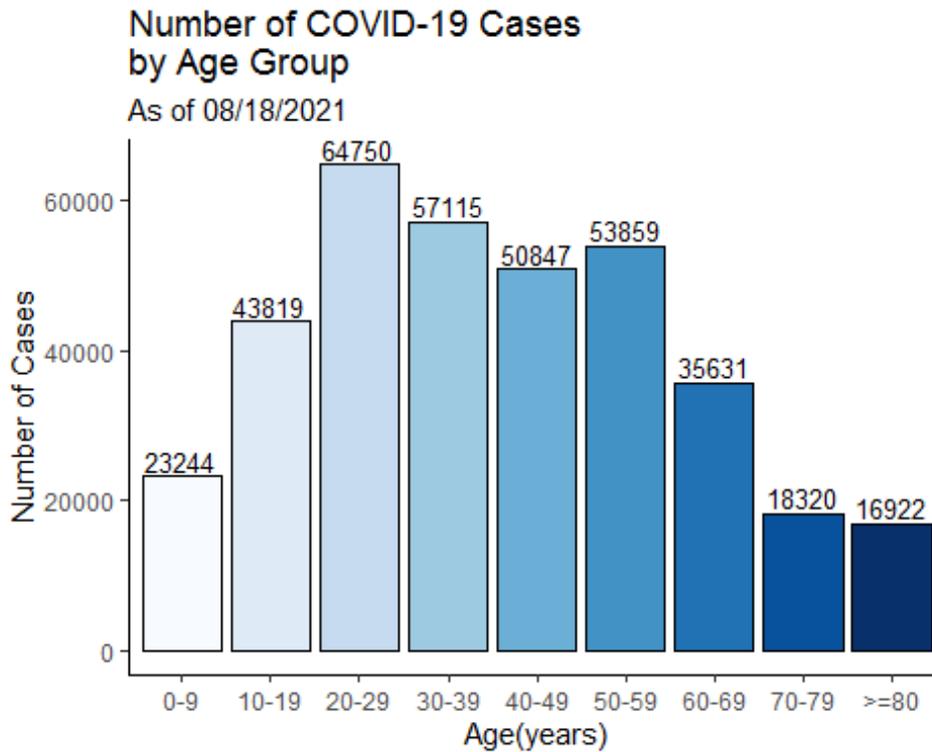
All data are preliminary and subject to change.

Counts may not add up to total case count because demographic data may be missing.

Number of COVID-19 Cases by Gender
As of 08/18/2021

Number of COVID-19-Associated Deaths by Gender
### As of 08/18/2021

All data are preliminary and subject to change.
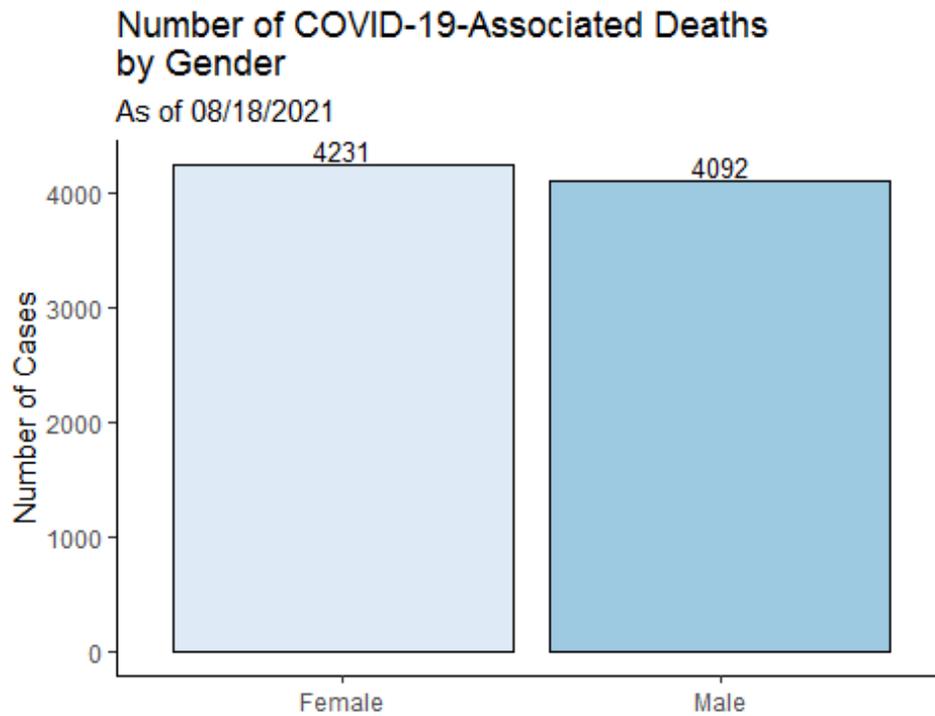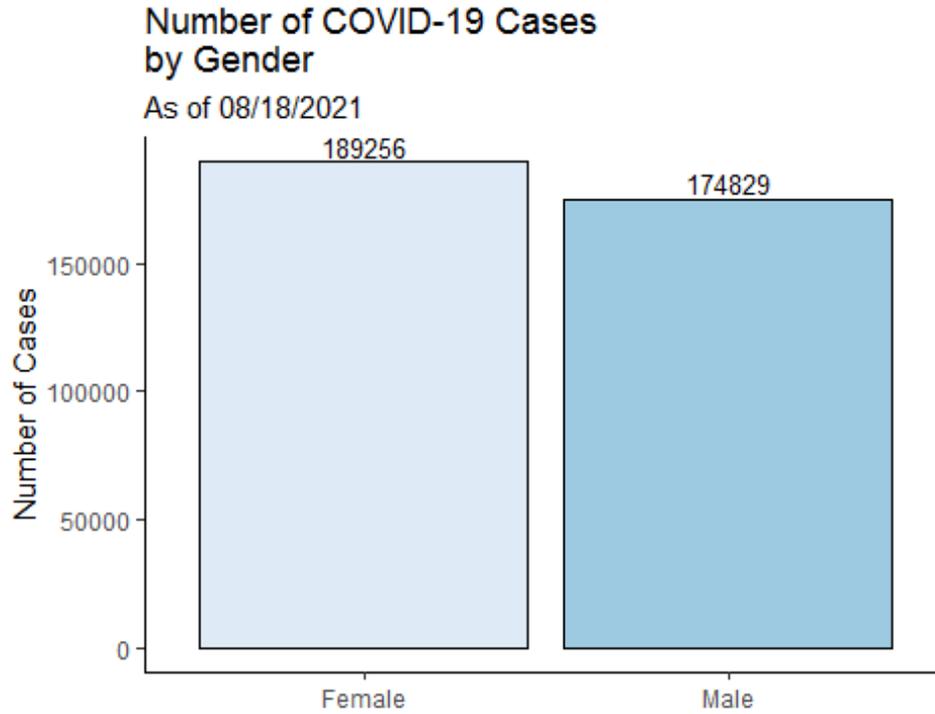
Cumulative Number of COVID-19 Cases by Town

Map does not include 1228 cases pending address validation
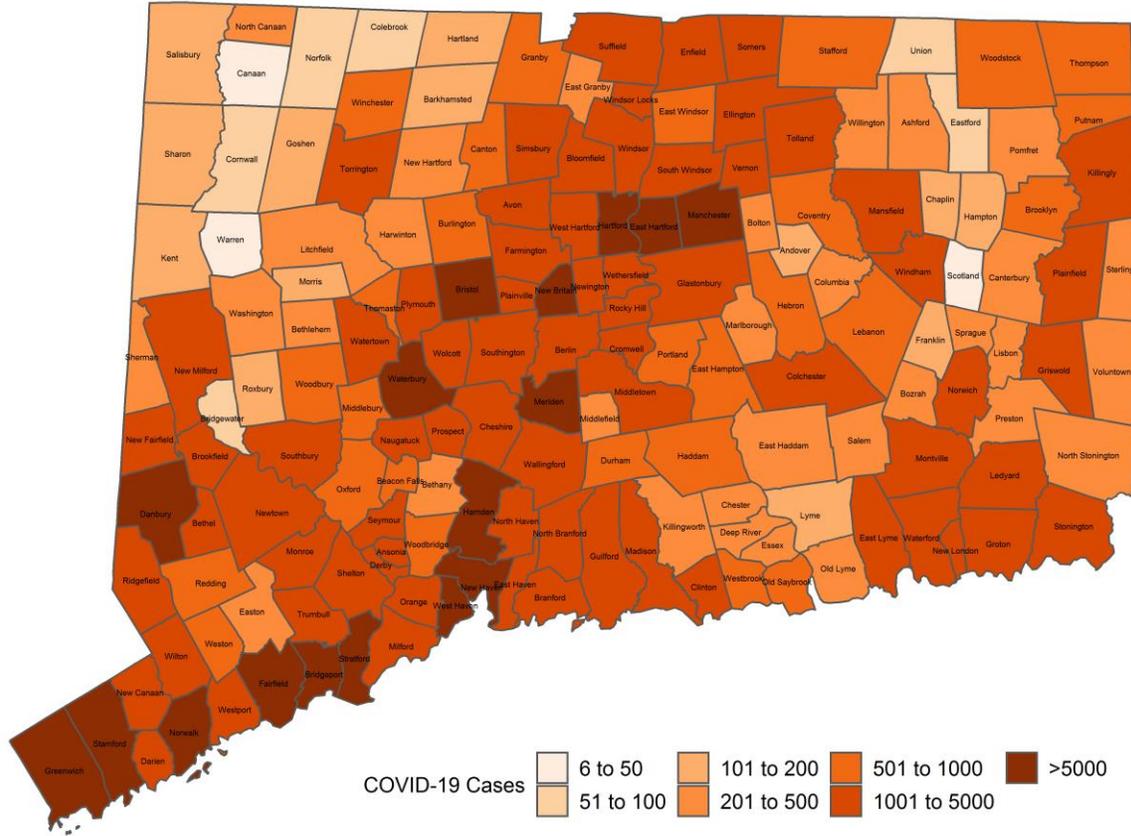
All data are preliminary and subject to change.

APPENDIX A. The following graphs show the number of cases per 100,000 Connecticut residents statewide and by county, age group, and gender. Population estimate from: DPH Population Statistics

Rate of COVID-19 Cases Statewide and by County
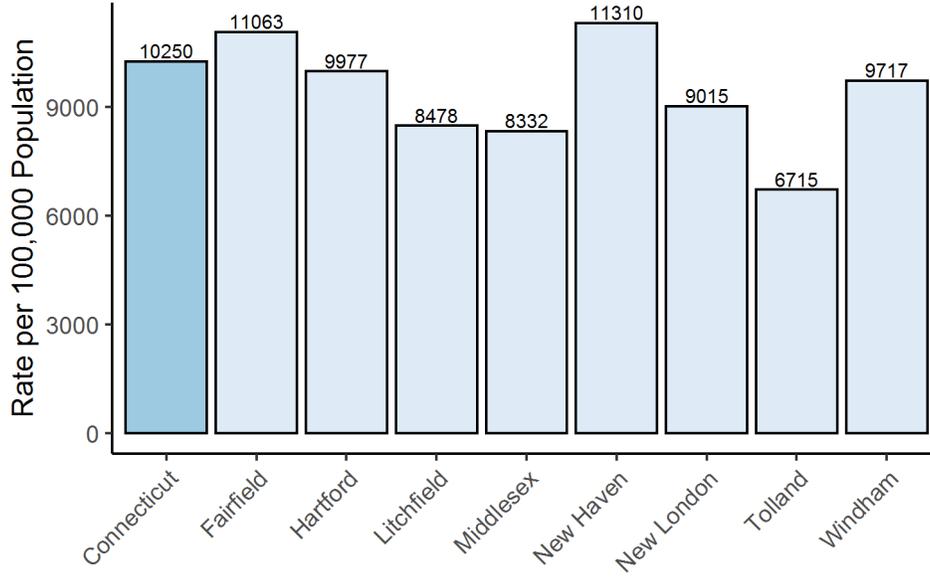
As of 08/18/2021

Rate of COVID-19-Associated Deaths Statewide and by County
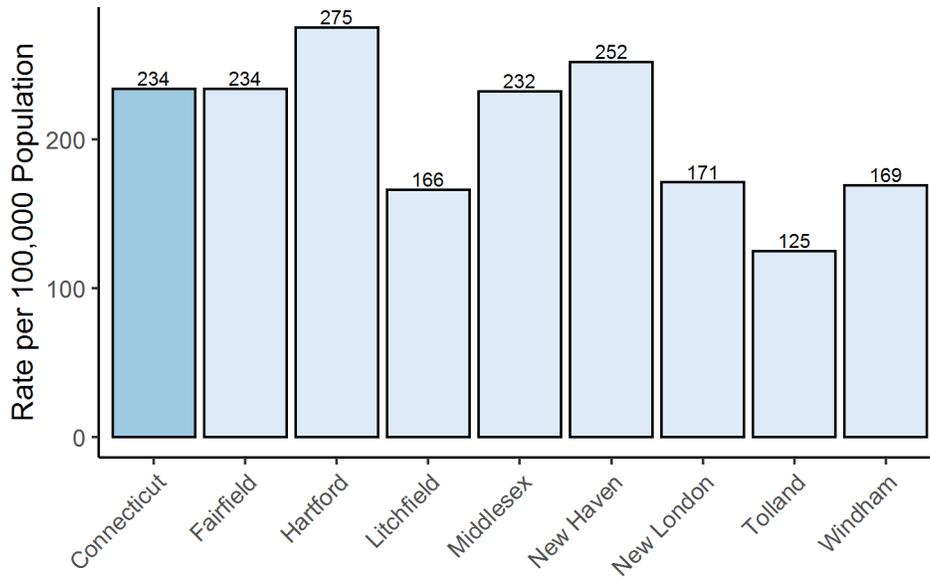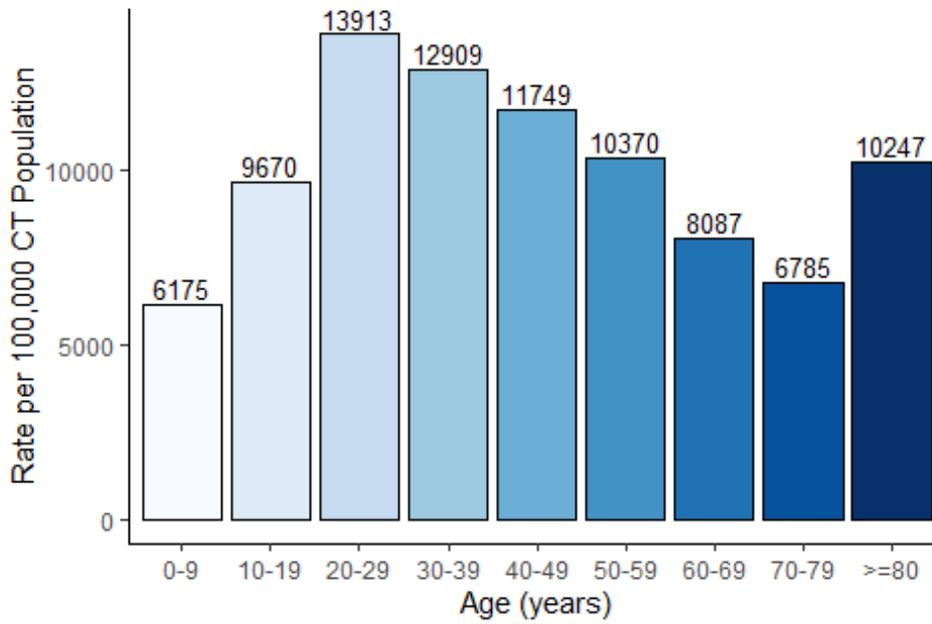
As of 08/18/2021

All data are preliminary and subject to change.

Rate of COVID-19 Cases
by Age Group
As of 08/18/2021

Rate of COVID-19-Associated Deaths
by Age Group
As of 08/18/2021

All data are preliminary and subject to change.

Rate of COVID-19 Cases
by Gender
As of 08/18/2021

Rate per 100,000 CT Population

10365 10051

Female Male

Rate of COVID-19-Associated Deaths
by Gender
As of 08/18/2021

Rate per 100,000 Population

232 235

Female Male

All data are preliminary and subject to change.
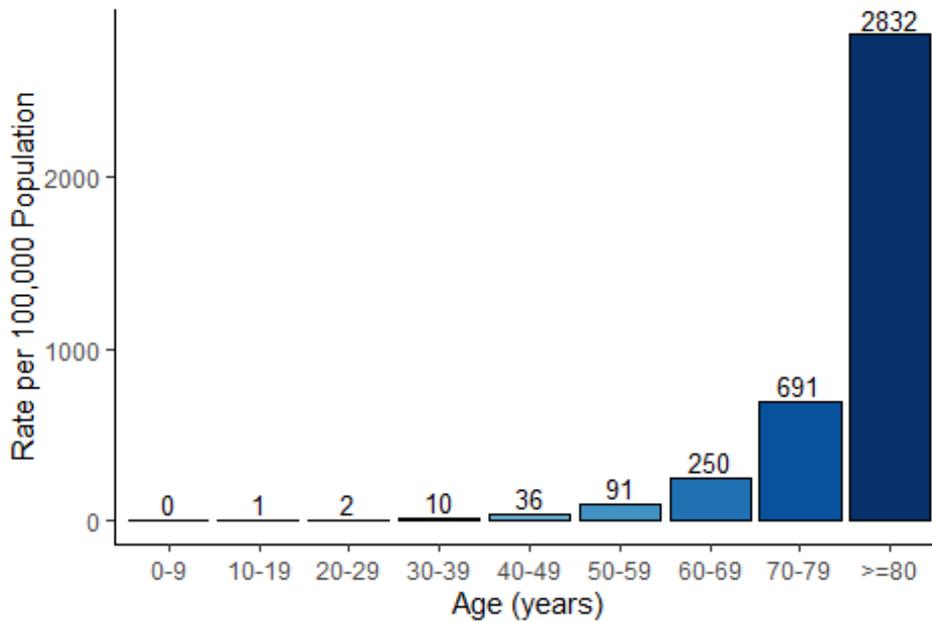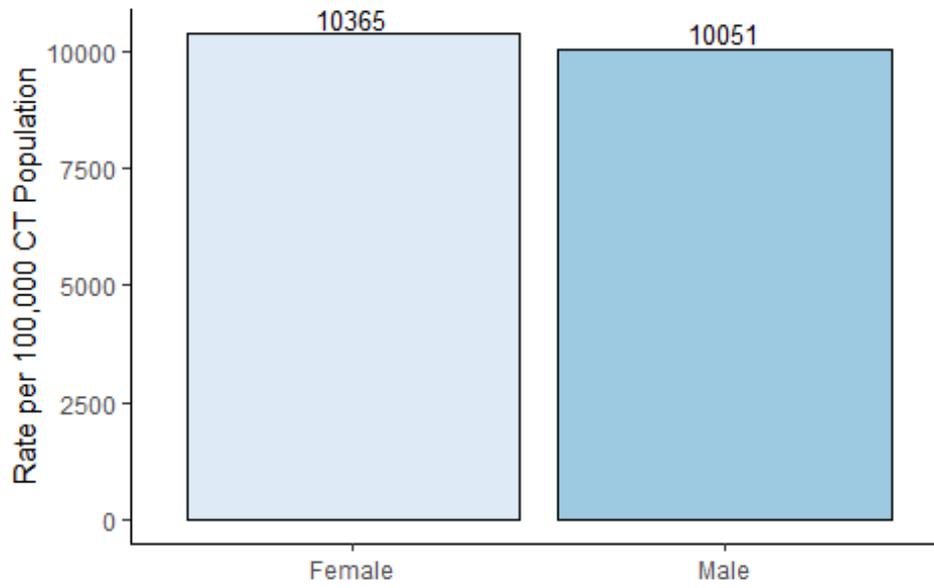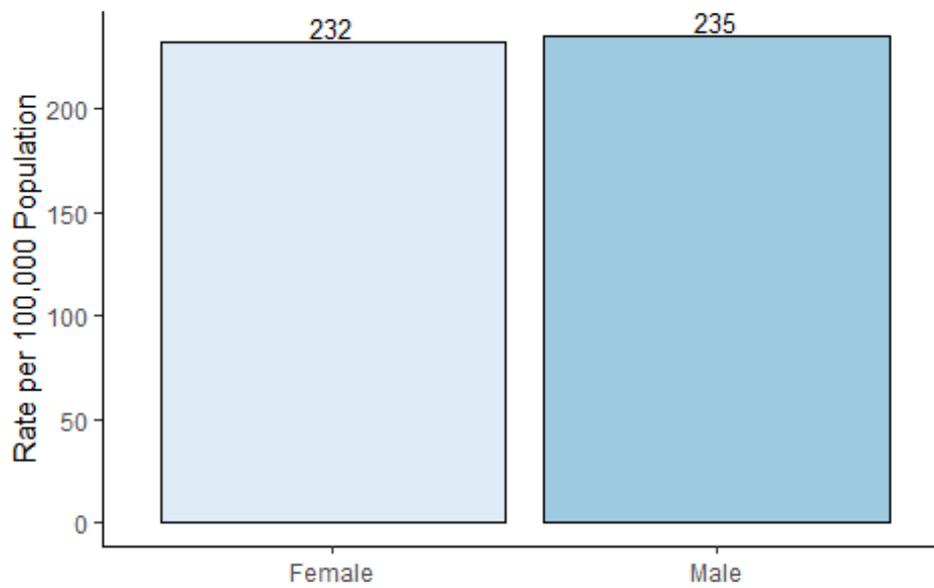
APPENDIX B. The following graphs show the number of cases and deaths by race and ethnicity. *Categories are mutually exclusive. The category "multiracial" includes people who answered 'yes' to more than one race category. NH=Non-Hispanic*

Number of COVID-19 Cases by Race\Ethnicity
As of 08/18/2021

Number of COVID-19-Associated Deaths by Race\Ethnicity
As of 08/18/2021

All data are preliminary and subject to change.
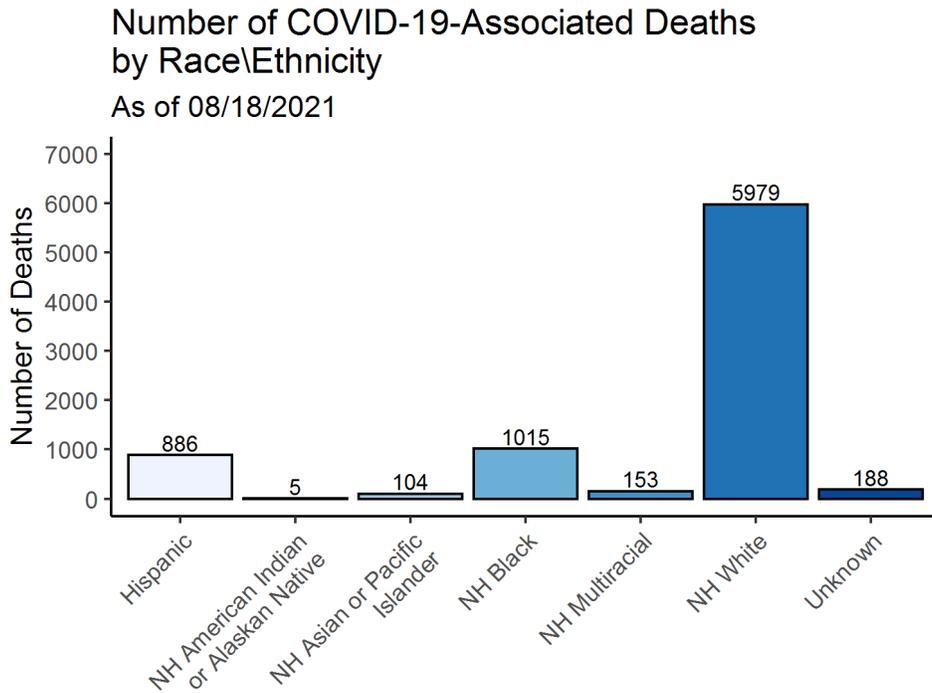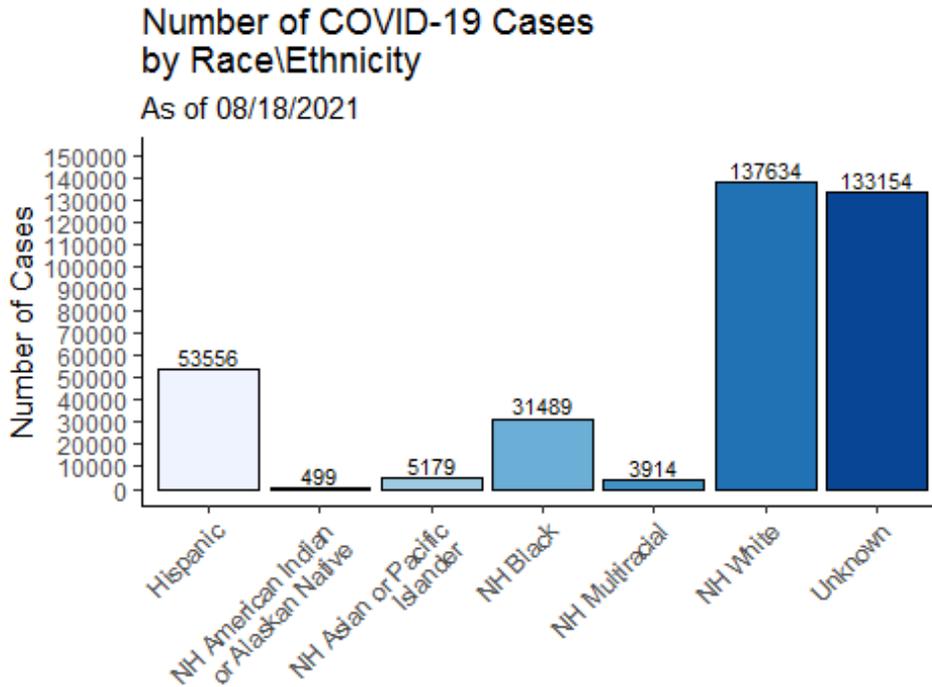
The following graphs show the number of COVID-19 cases and COVID-19-associated deaths per 100,000 population by race and ethnicity. Crude rates represent the total cases or deaths per 100,000 people. Age-adjusted rates consider the age of the person at diagnosis or death when estimating the rate and use a standardized population to provide a fair comparison between population groups with different age distributions. Age-adjustment is important in Connecticut as the median age of among the non-Hispanic white population is 47 years, whereas it is 34 years among non-Hispanic blacks, and 29 years among Hispanics. Because most non-Hispanic white residents who died were over 75 years of age, the age-adjusted rates are lower than the unadjusted rates. In contrast, Hispanic residents who died tend to be younger than 75 years of age which results in higher age-adjusted rates.

The 2018 Connecticut and 2000 US Standard Million populations were used for age adjustment; population estimates from: DPH Population Statistics. *Categories are mutually exclusive. Cases missing data on race/ethnicity are excluded from calculation of rates. NH=Non-Hispanic*

Rate of COVID-19 Cases by Race/Ethnicity, with and without age adjustment
As of 08/18/2021

Rate of COVID-19-Associated Deaths by Race/Ethnicity, with and without age adjustment*
As of 08/18/2021
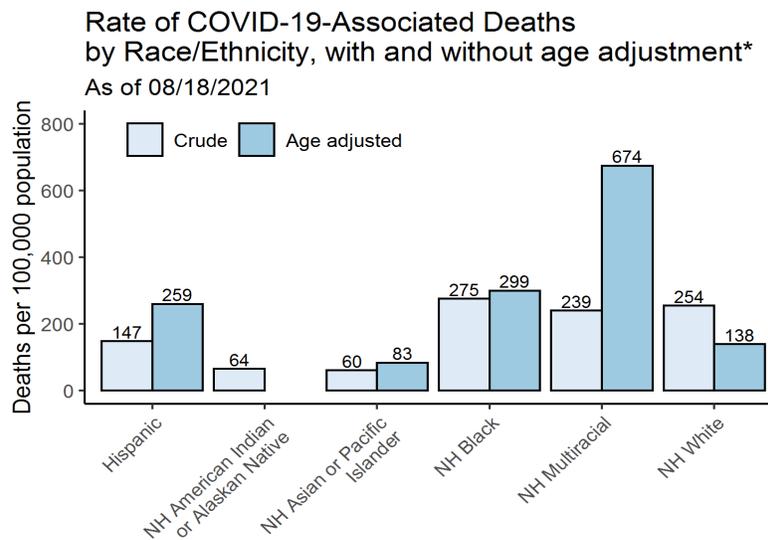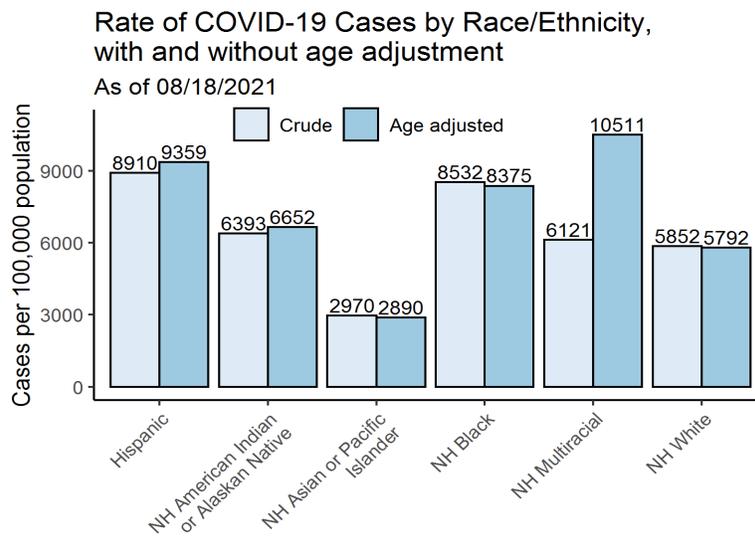
Age adjusted rates only calculated for groups with at least 30 deaths

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