

COVID-19 Update May 05, 2022

As of **May 04, 2022**, the total of laboratory-confirmed and probable COVID-19 cases reported among Connecticut residents is **764,569**; **6,079** have been reported in the past 7 days. **Two hundred thirty-three** patients are currently hospitalized with laboratory-confirmed COVID-19; of these, **82** (35.19%) are not fully vaccinated.

Overall Summary	Cumulative (except for hospital census)	Past 7 days*
Positive PCR/NAAT Tests	827,243	6,420
All PCR/NAAT Tests	14,126,966	62,002
Test Positivity (pos/all PCR/NAAT)		10.35%
Patients currently hospitalized with COVID-19	233	+0
COVID-19-Associated Deaths	10,858	+18

*This column indicates all PCR/NAAT tests by specimen collection date from the past 7 days. Test positivity is calculated as a rolling 7-day test positivity by specimen collection date; all positive molecular (PCR/NAAT) test results are divided by all molecular (PCR/NAAT) test results (positive and negative) for the last 7 days and multiplied by 100 to reach a percentage. Hospitalizations over the past 7 days indicates the change in the number of patients hospitalized with COVID-19 over that period. Deaths over the past 7 days indicates the number of new COVID-19 associated deaths reported; deaths are reported once weekly.

As of April 4th 2022, negative rapid antigen and rapid PCR test results for SARS-CoV-2 are no longer required to be reported to the Connecticut Department of Public Health. Negative test results from laboratory based molecular (PCR/NAAT) results are still required to be reported as are all positive test results from both molecular (PCR/NAAT) and antigen tests. Both positive molecular (PCR/NAAT) and antigen tests will continue to be used for determining case status.

As of **May 04, 2022**, 197426 cases of COVID-19 among fully vaccinated persons in Connecticut have been identified. Of the 2709617 persons who are fully vaccinated, 7.29 percent have contracted the virus.

For the week beginning April 24, 2022, unvaccinated persons had a **2x greater risk of testing positive** for COVID-19 compared to persons who have received an additional dose of COVID-19 vaccine.

For the week beginning April 24, 2022, unvaccinated persons had a **4x greater risk of dying** from COVID-19 compared to persons who have received an additional dose of COVID-19 vaccine.

COVID-19 Cases and Associated Deaths by County of Residence As of 05/04/22.

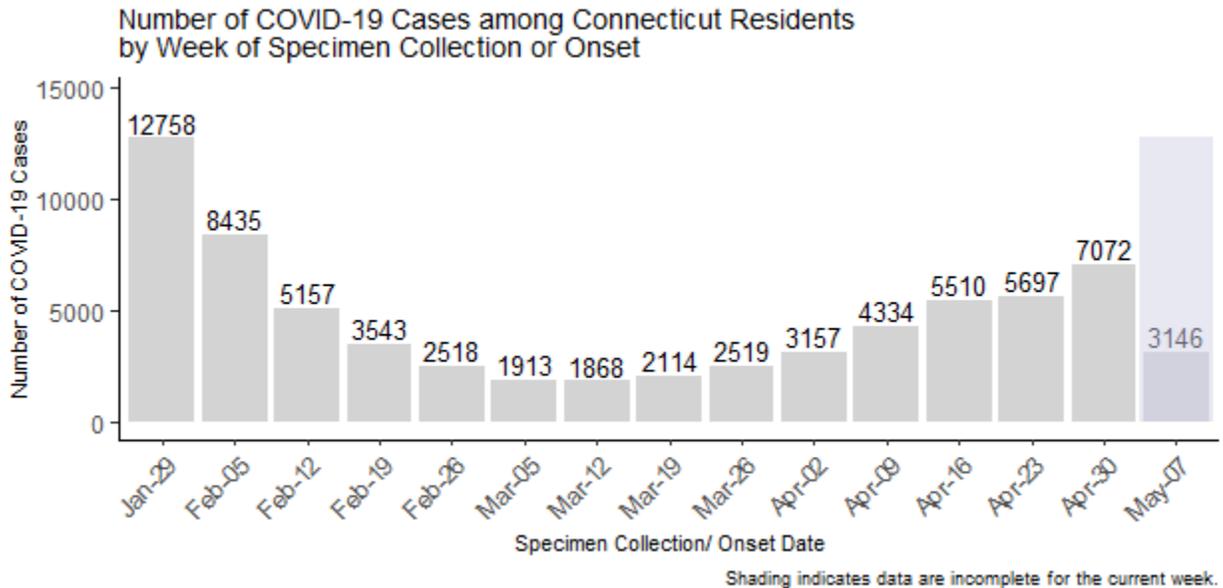
County	COVID-19 Cases		COVID-19-Associated Deaths	
	Confirmed	Probable	Confirmed	Probable
Fairfield County	187,330	23,191	2,195	526
Hartford County	166,046	17,170	2,560	575
Litchfield County	28,403	4,451	396	63
Middlesex County	26,513	2,691	342	138
New Haven County	178,382	23,424	2,443	382
New London County	52,172	4,812	514	145
Tolland County	19,202	2,203	198	76
Windham County	24,728	1,541	240	64
Pending address validation	2,006	304	0	1
Total	684782	79787	8888	1970

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

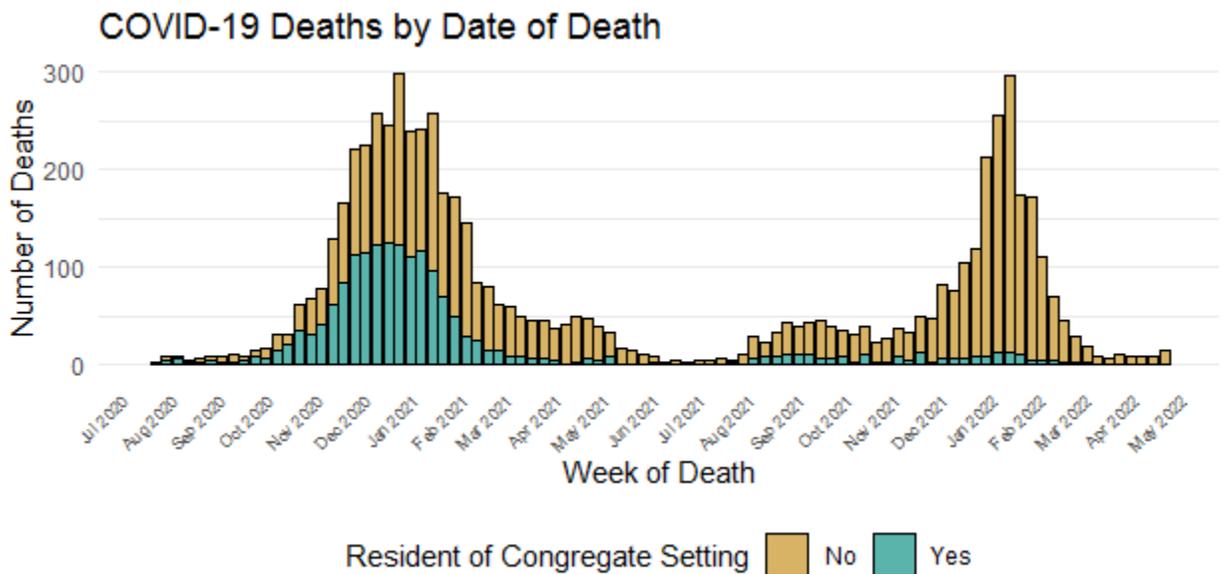
Day-to-day changes reflect newly reported cases, deaths, and tests that occurred over the last several days to week. All data in this report are preliminary; data for previous dates will be updated as new reports are received and data errors are corrected. Hospitalization data were collected by the Connecticut 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 includes probable cases based on positive antigen test results. During the past two weeks (April 17-30), there were 12,769 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.



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.

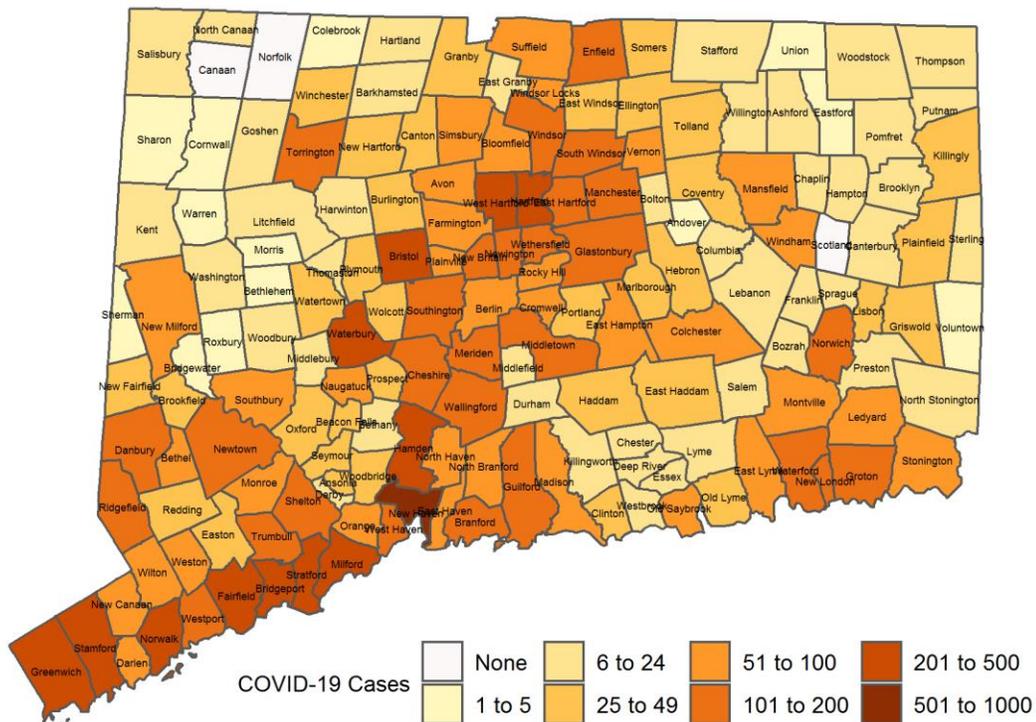


Community Transmission of COVID-19

Among 12,769 new COVID-19 cases with specimen collection or onset date during April 17-30, there were 12,750 cases among people living in community settings, as shown in the map below. This corresponds to an average of 25.54 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.

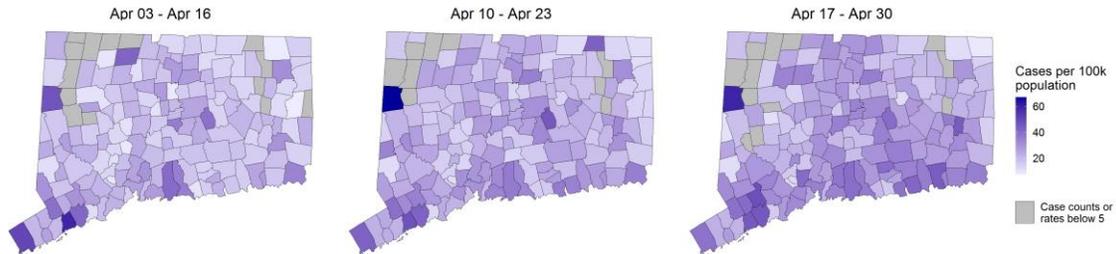
During this two-week period, there were more than 100 new COVID-19 cases in 41 towns.

Number of COVID-19 Cases among People Living in Community Settings by Town with Specimen Collection or Onset Date During April 17-30



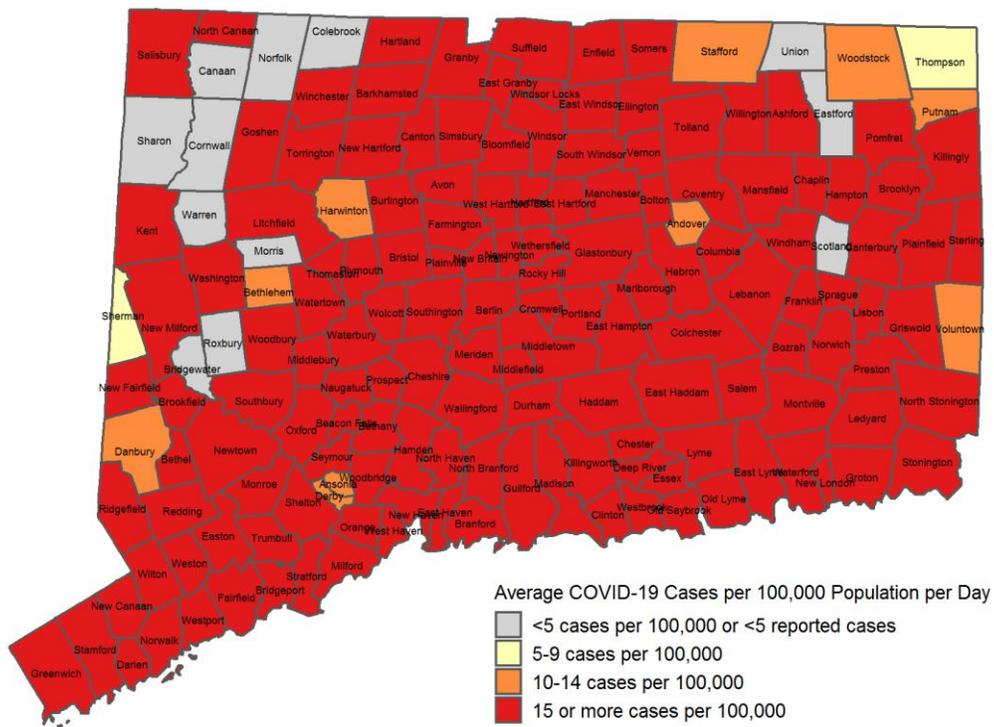
Map does not include 73 cases pending address validation

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.



Among towns with at least 5 new cases during April 17-30, 145 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 April 17-30



Map does not include 73 cases pending address validation

Epidemiology of COVID-19 by Vaccine Status

Methodology

To determine cases of COVID-19 among fully vaccinated persons or among those who have received an additional dose of COVID-19 vaccine, DPH matches COVID-19 case data with the vaccine registry to determine which cases meet the definition of being fully vaccinated or having received an additional dose and which 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 or approved COVID-19 vaccine series and who did not have a previously positive COVID-19 test < 90 days prior to the positive test currently under investigation.
- A case of COVID-19 in a fully vaccinated person who has received an additional dose is defined as a person who has a positive PCR/NAAT or antigen test in a respiratory specimen collected ≥ 14 days after receiving an additional dose of any COVID-19 vaccine and who did not have a previously positive COVID-19 test < 90 days prior to the positive test currently under investigation.

All data presented below are preliminary and subject to change.

Data

The table below shows new COVID-19 cases for the last two complete weeks (Sun-Sat) April 17, 2022 - April 30, 2022 by vaccination status. The percentage of cases among fully vaccinated individuals is influenced by the high proportion of the population that is eligible for and has completed a vaccine series, and should be considered in light of the overall proportion of vaccinated individuals who have contracted the virus.

Status	Case Count	Percent
New Cases	12,169	
Not Fully Vaccinated	3,584	29.5
Fully Vaccinated	8,585	70.5

As of **May 04, 2022**, 197,426 cases of COVID-19 among fully vaccinated persons in Connecticut have been identified. Those 197,426 cases account for 7.29 percent of the 2,709,617 persons who are fully vaccinated.

Since the beginning of the pandemic, 567,143 cases have been identified among individuals who are not fully vaccinated.

Eight hundred ninety-eight COVID-19 related deaths have occurred among the 197,426 fully vaccinated persons confirmed with COVID-19.

The table below shows cases and deaths among fully vaccinated persons, and among persons who have received an additional dose, by age group. As shown below, persons who have received an additional dose are a subset of those cases that are fully vaccinated.

Cases and Deaths Among Fully Vaccinated Persons and Persons with Additional Doses by Age Group

Age groups	# (%) Cases	# (%) Additional Dose Cases	# (%) Deaths	# (%) Additional Dose Deaths
5-11	4,651 (2.4%)	4 (0%)		
12-15	8,102 (4.1%)	266 (0.5%)		
16-24	27,244 (13.8%)	4,198 (8.1%)	1 (0.1%)	
25-34	33,001 (16.7%)	6,641 (12.8%)	3 (0.3%)	
35-44	33,862 (17.2%)	8,496 (16.4%)	9 (1%)	
45-54	32,333 (16.4%)	8,925 (17.2%)	22 (2.4%)	5 (2.6%)
55-64	30,176 (15.3%)	10,260 (19.8%)	111 (12.4%)	19 (9.9%)
65-74	16,076 (8.1%)	7,614 (14.7%)	147 (16.4%)	32 (16.7%)
75+	11,981 (6.1%)	5,434 (10.5%)	605 (67.4%)	136 (70.8%)
Total	197,426	51,838	898	192

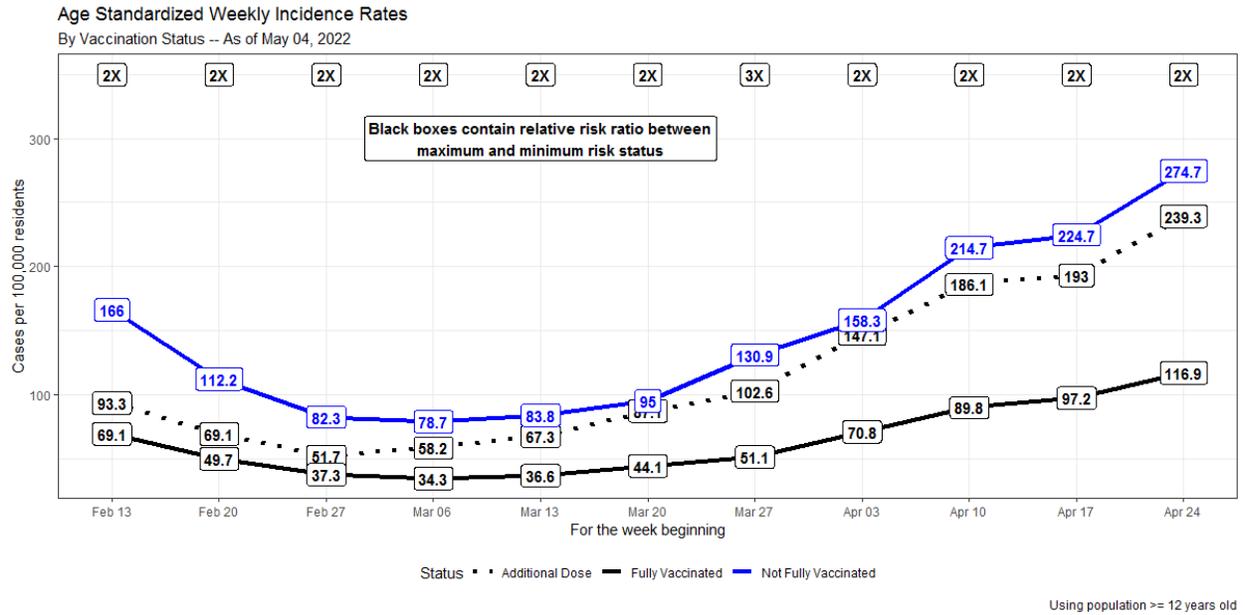
The risk of being infectedd, hospitalized or dying is higher when there is more virus spreading from person to person. Risk is decreased by becoming vaccinated against COVID-19 and decreased further by receiving an additional dose of vaccine. The figures below show that rates of infection, hospitalization, and death, are highest among those who are not fully vaccinated. The figures also show relative risk (RR) which is the difference in risk when comparing rates between those who have received an additional dose of vaccine and those who are not fully vaccinated. When the relative risk is $1/n$, it means the risk was only for not fully vaccinated persons, since no deaths were reported among persons who have received an additional dose that week.

The figures below are age standardized. The process of age-standardization allows for comparison of rates between groups when the age distributions of the two groups (e.g., fully vaccinated with an additional dose and not fully vaccinated) are different. The group defined as 'additional dose' in the figures below excludes those defined as 'fully vaccinated'. The 2019 CT state population was used for age-adjustment purposes.

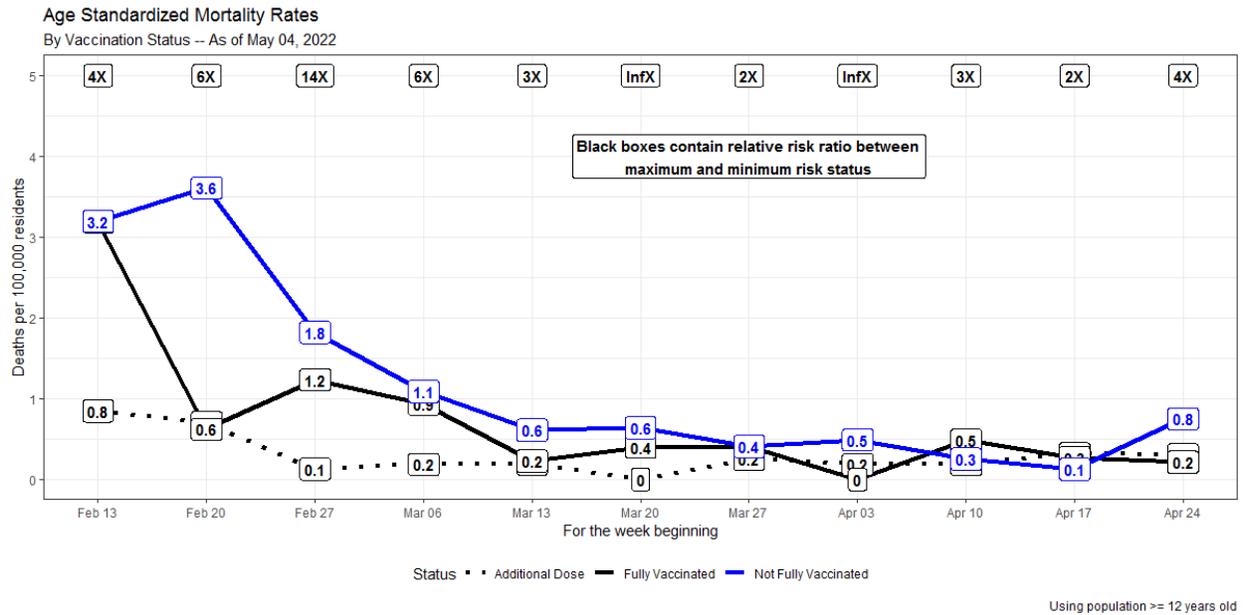
Compared to having received an additional dose of COVID-19 vaccine, being not fully vaccinated currently has the following relative risk:

- 2 Times higher risk of being infected with COVID-19
- 4 Times higher risk of dying from COVID-19
- 3 Times higher risk of being hospitalized with COVID-19

COVID-19 Cases



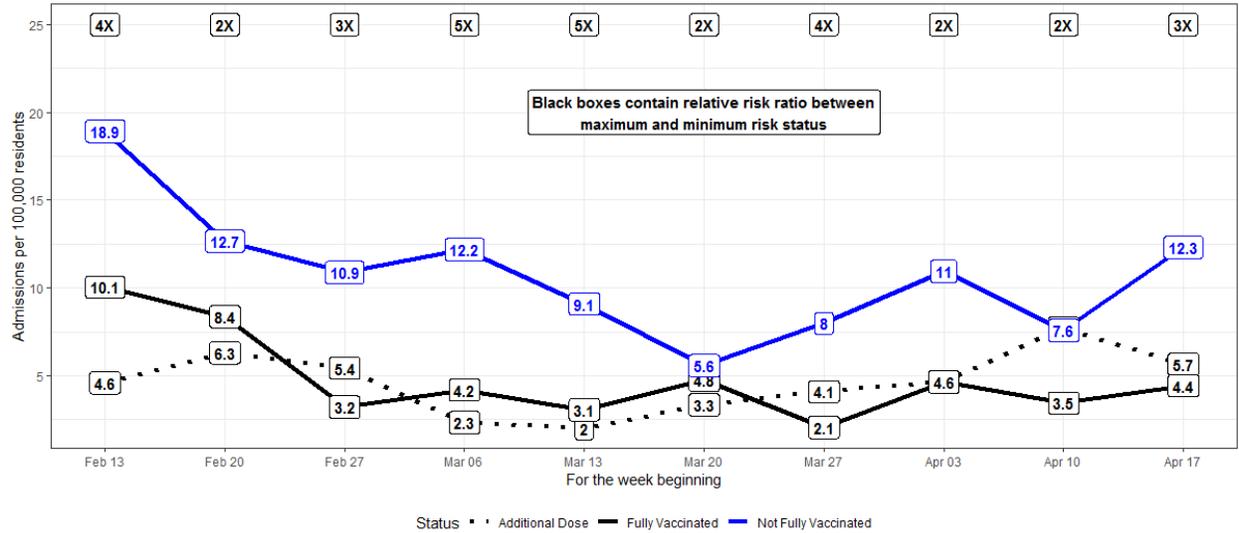
COVID-19 Deaths



COVID-19 Hospitalizations

Age Standardized Weekly Hospital Admission Rates

By Vaccination Status -- As of May 04, 2022 -- Limited to residents of New Haven and Middlesex Counties



Using population >= 12 years old

SARS-CoV-2 Variant Surveillance

The Centers for Disease Control and Prevention (CDC) have identified three types of SARS-CoV-2 variants: variants of concern, variants being monitored, 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, the WHO label are listed for each variant described.

Below are data on variants of concern and variants being monitored identified among Connecticut residents. No variants of high consequence have been defined by CDC to date.

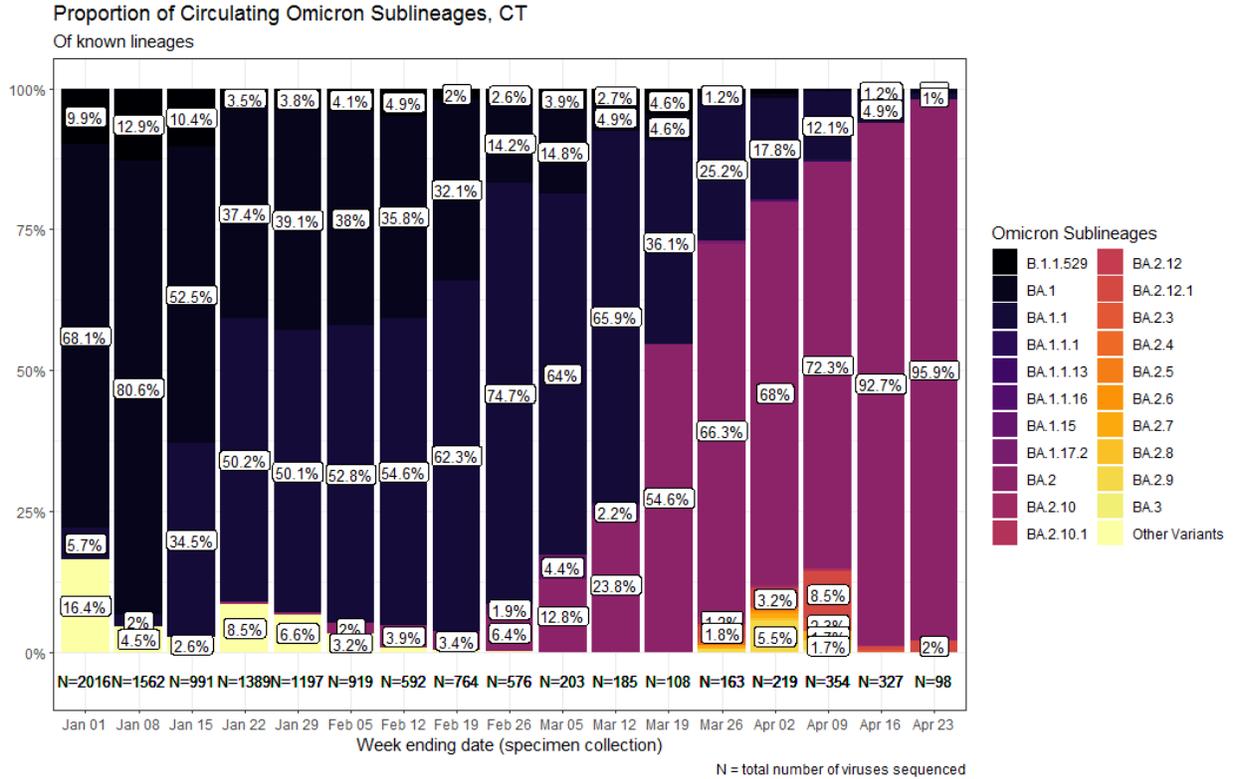
Data presented are now based on variant data reported directly to DPH instead of to the GISAID Initiative and only include data since January 2021-present.

Data below represent sequences that have been reported to DPH as of 05/04/2022 with specimen collection dates between 01/12/2021 and 04/26/2022. **The total number of SARS-CoV-2 sequences reported to DPH with a valid specimen collection date is 33495.** Data are preliminary and updated as new data are received.

Variant	Number	Percentage
Variants of Concern		
Delta	16,286	48.62
Omicron	12,230	36.51
Variants Being Monitored		
Alpha	2,525	7.54
Beta	23	0.07
Gamma	137	0.41
Epsilon	60	0.18
Zeta	1	0.00
Eta	10	0.03
Iota	718	2.14
Kappa	2	0.01
B.1.617.3	0	0.00
Mu	84	0.25

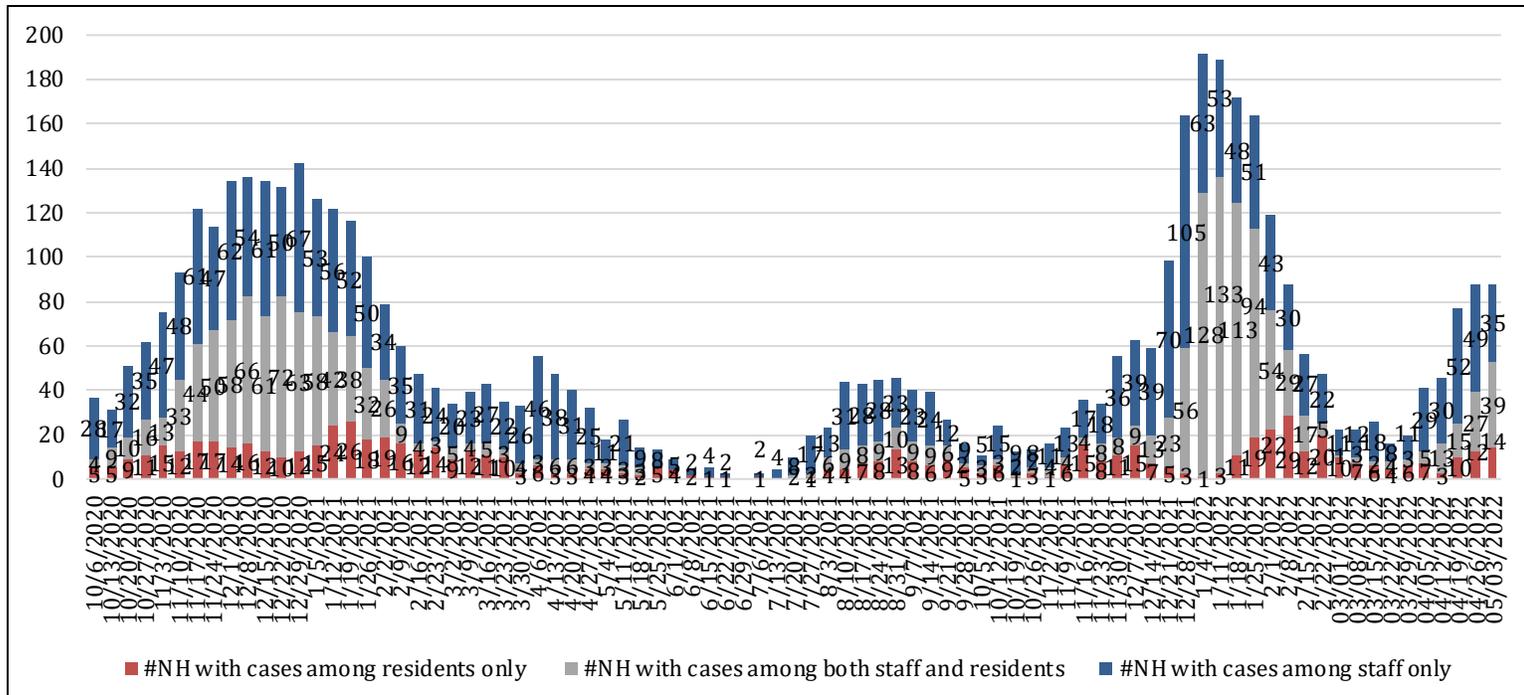
SARS-CoV-2 Variant Surveillance, continued

The figure below shows the change in proportion of circulating variants of concern by week reported to DPH through May 04, 2022. Variants identified as Omicron are shown by sublineage and all other variants are included as "Other Variants". Data include sequences from specimens with dates of collection from 12/26/2021–04/26/2022.



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](#).

Figure 1. Nursing Homes with Positive Staff or Residents October 6, 2020 – May 3, 2022^{1,2,3}



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](#).

³24 facilities did not report for this week, as of May 5, 2022.

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 April 24, 2022	
	Resident Vaccination Rates N= 204 homes	Staff Vaccination Rates N= 204 homes
Average Vaccination Rate	93%	97%
Median Vaccination Rate	95%	98%
Range of Vaccination Rates	66-100%	81-100%
% of the reporting nursing homes with vaccination rate ≥ 90%	83%	97%

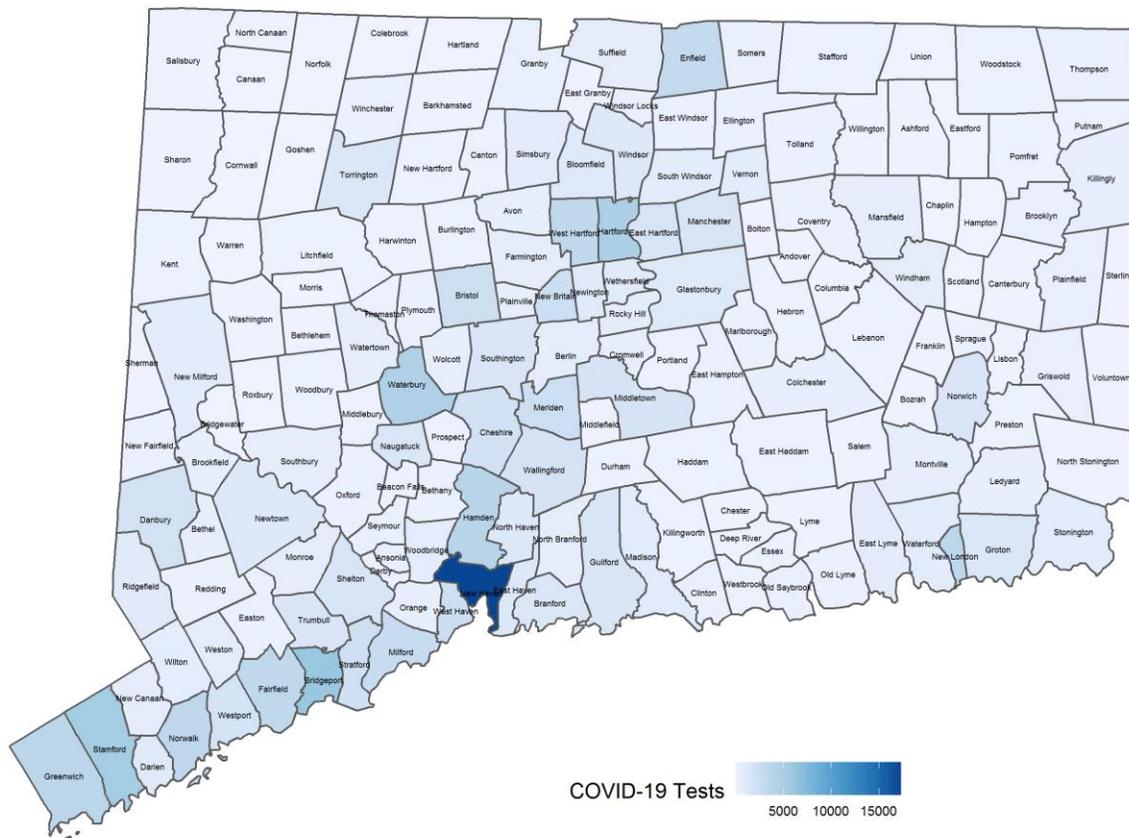
¹ NHSN vaccine reporting instructions for nursing homes can be found [here](#).

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](#).

COVID-19 Molecular and Antigen Tests during April 17 - April 30, 2022

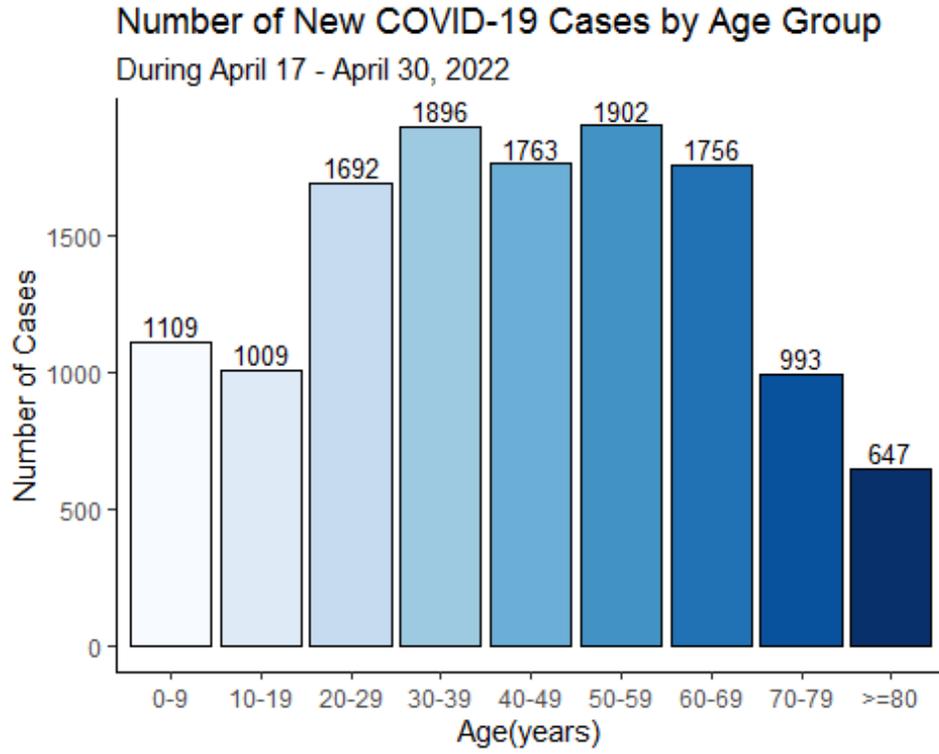
Among 161,595 molecular and antigen tests for COVID-19 with specimen collection date during April 17 - April 30, 2022, 156,896 (97%) tests were conducted among people who did not reside in congregate settings (including nursing homes, assisted living, and correctional facilities). Of these 156,896 tests, 15,435 (10%) were positive. The map below shows the number of molecular and antigen COVID-19 tests by town with specimen collection date during April 17 - April 30, 2022 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 April 17-30



Map does not include tests pending address validation

**Age Distribution of COVID-19 Cases with Specimen Collection or Onset
During April 17 - April 30, 2022**

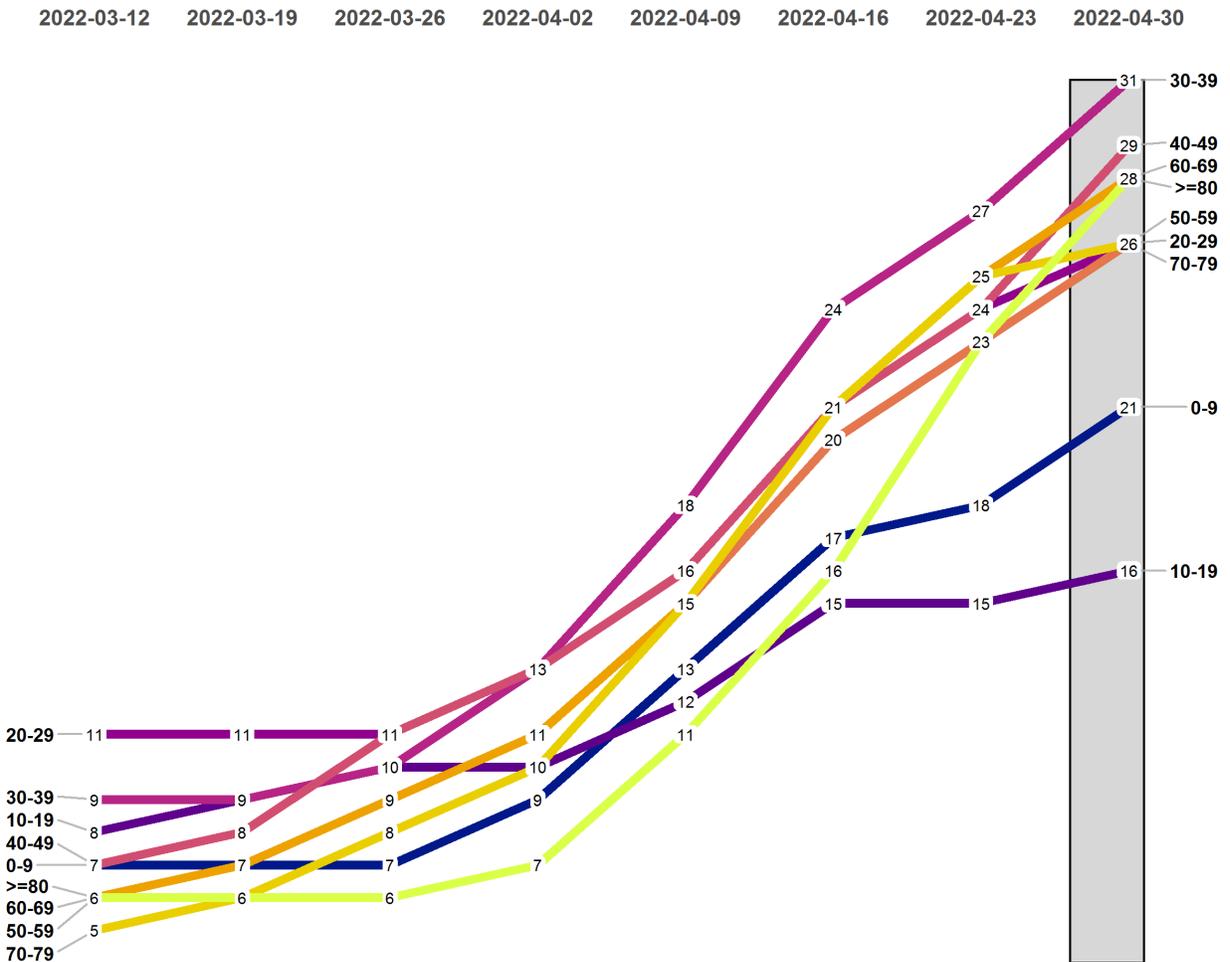


Average Daily Incidence by Age Group

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

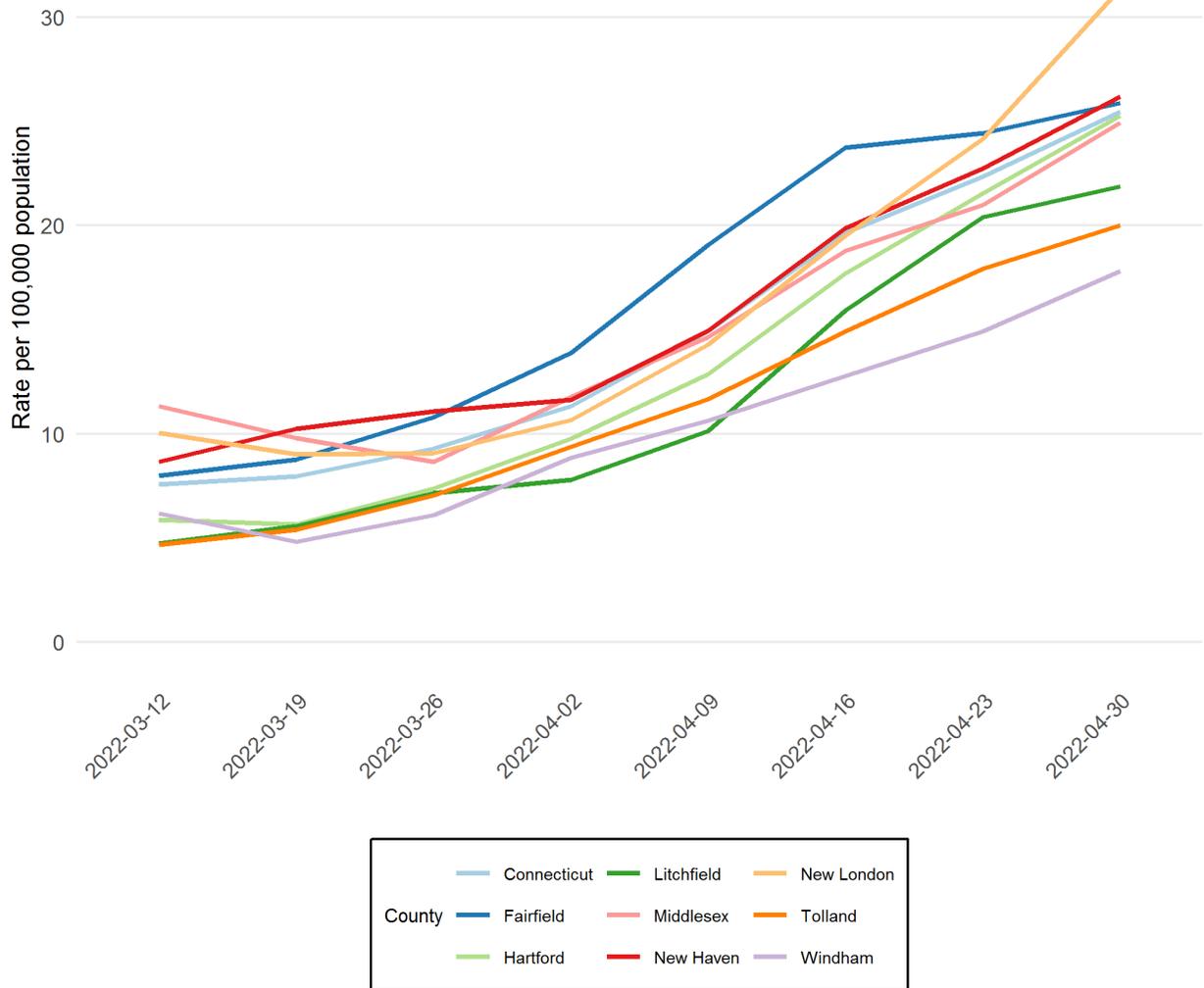
As of 05/04/2022



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 05/04/2022

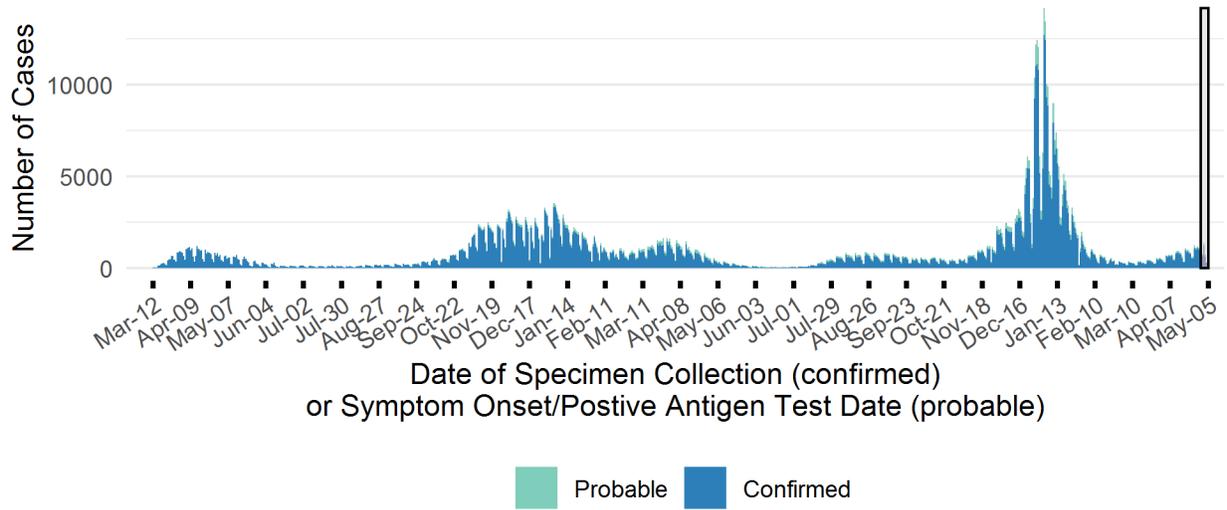


Cumulative Number of COVID-19 Cases and COVID-19-Associated Deaths by Date

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.

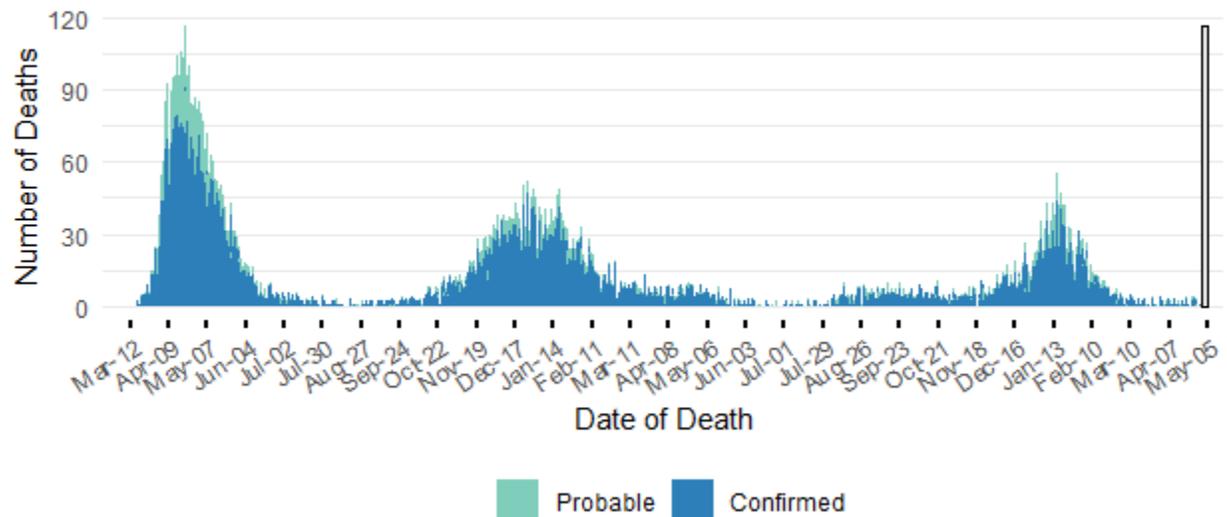
Number of Confirmed and Probable COVID-19 Cases by Date

As of 05/04/2022



Number of COVID-19-Associated Deaths by Date of Death

As of 05/04/2022

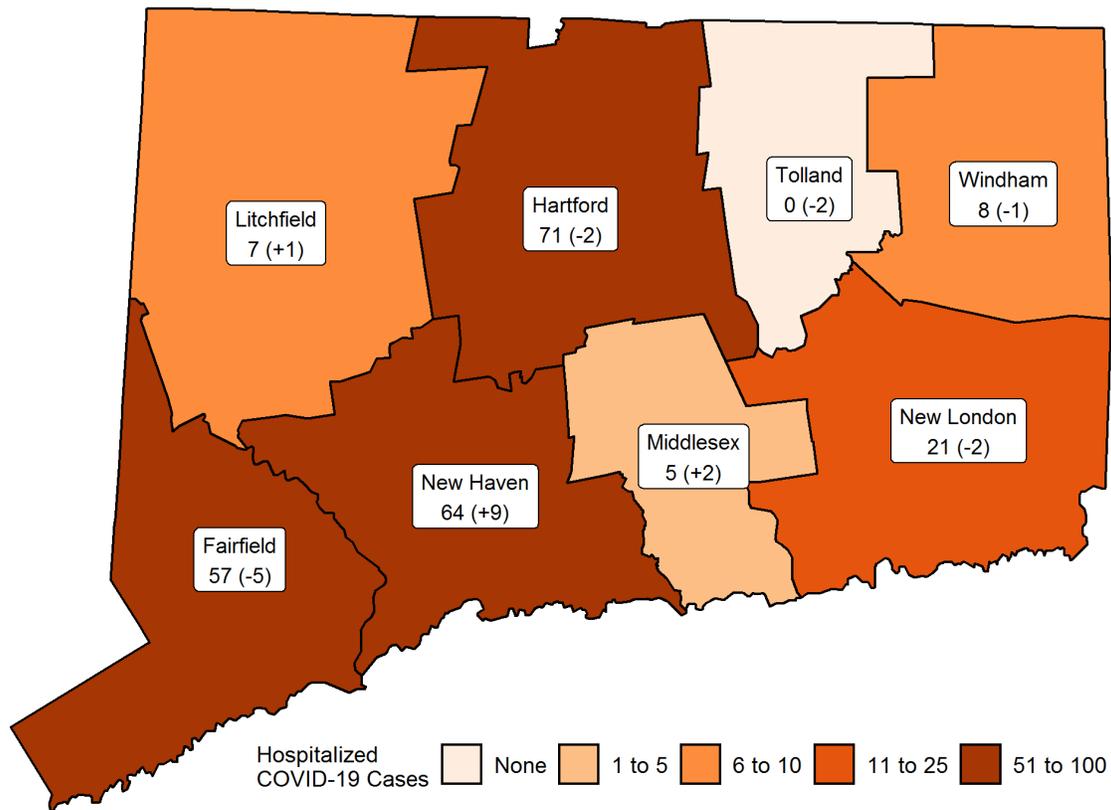


Hospitalization Surveillance

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 from 7 days ago in parentheses.

Patients Currently Hospitalized by Connecticut County

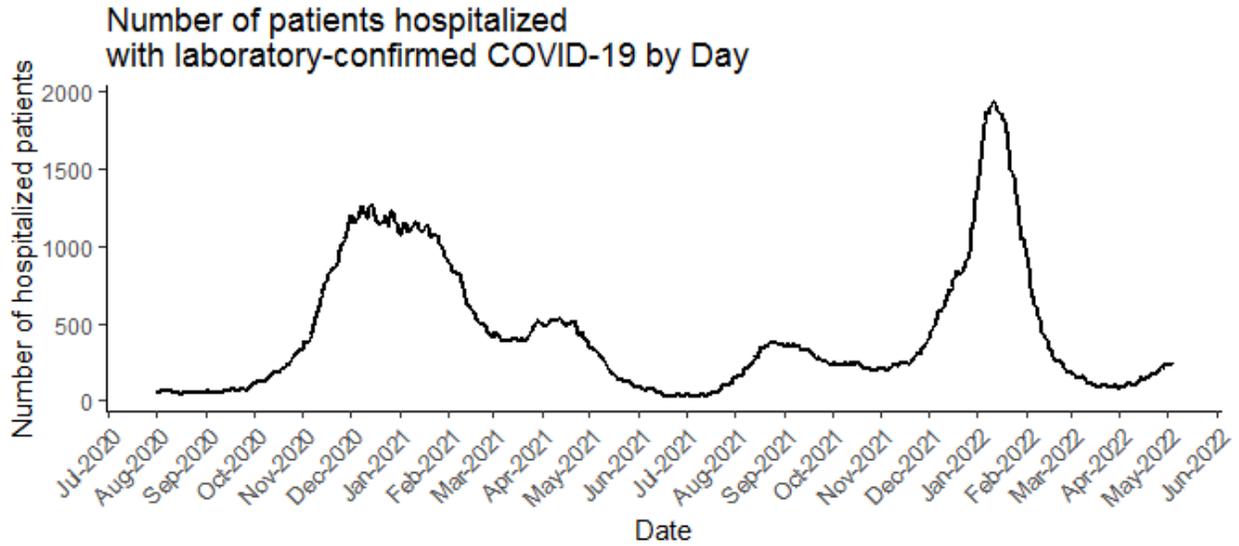
Distribution by location of hospital not patient residence. Data from the Connecticut Hospital Association.



More information about hospitalized cases of COVID-19 in New Haven and Middlesex Counties is available from [COVID-NET](#).

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.

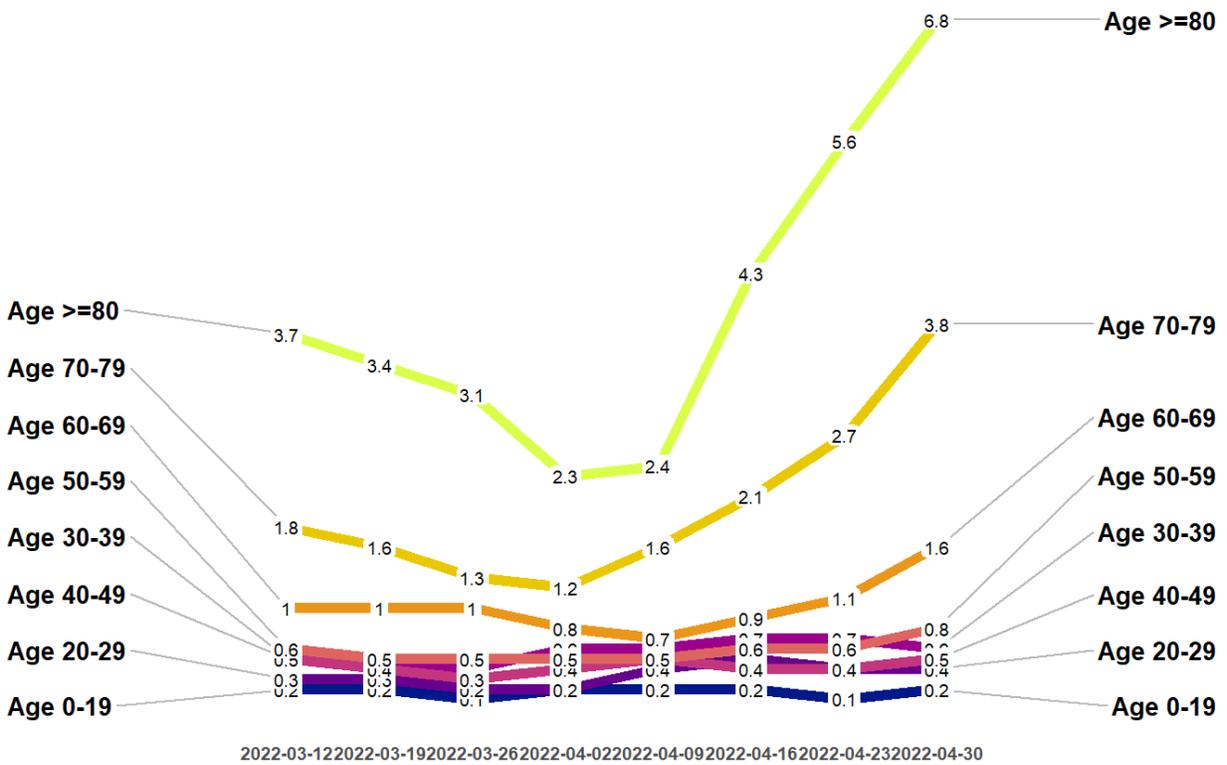


COVID-19 Admissions

The chart below shows the average daily rate of hospital admissions with laboratory-confirmed COVID-19 by age group. The data used to create this plot were gathered from HHS Protect. More information on [HHS Protect data can be found here](#).

Average daily COVID-19 hospital admission rate per 100,000, Connecticut

Data from HHS Protect



Child Care-Associated Case Surveillance

The table below shows the number of cases among child care attendees and staff reported to the Department of Public Health (DPH). Licensed child care centers are required to report cases of COVID-19 among attendees and staff to the DPH and the local health department. There are 1,388 licensed child care centers and group child care homes in Connecticut that serve approximately 50,000 children. Beginning the week of January 9th, reporting transitioned from individual case reporting to aggregate reporting of cases among attendees and staff. The form for collecting aggregate data from child care centers can be found [here](#).

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. Data from previous weeks are updated as new data are received. Several weeks of data from the new reporting system will be needed to determine trends.

Number of Reported Child Care-Associated Cases Statewide

Overall Summary	Child Care Centers Reporting	COVID-19 Cases: Children Attendees	COVID-19 Cases: Staff
1/9/2022 - 1/15/2022	330	937	339
1/16/2022 - 1/22/2022	383	1209	384
1/23/2022 - 1/29/2022	273	751	213
1/30/2022 - 2/5/2022	160	339	66
2/6/2022 - 2/12/2022	145	266	79
2/13/2022 - 2/19/2022	79	120	37
2/20/2022 - 2/26/2022	48	68	16
2/27/2022 - 3/5/2022	40	48	19
3/6/2022 - 3/12/2022	31	40	9
3/13/2022 - 3/19/2022	31	45	19
3/20/2022 - 3/26/2022	41	56	20
3/27/2022 - 4/2/2022	54	95	27
4/3/2022 - 4/9/2022	71	115	45
4/10/2022 - 4/16/2022	134	216	84
4/17/2022 - 4/23/2022	135	219	88
4/24/2022 - 4/30/2022	139	215	95

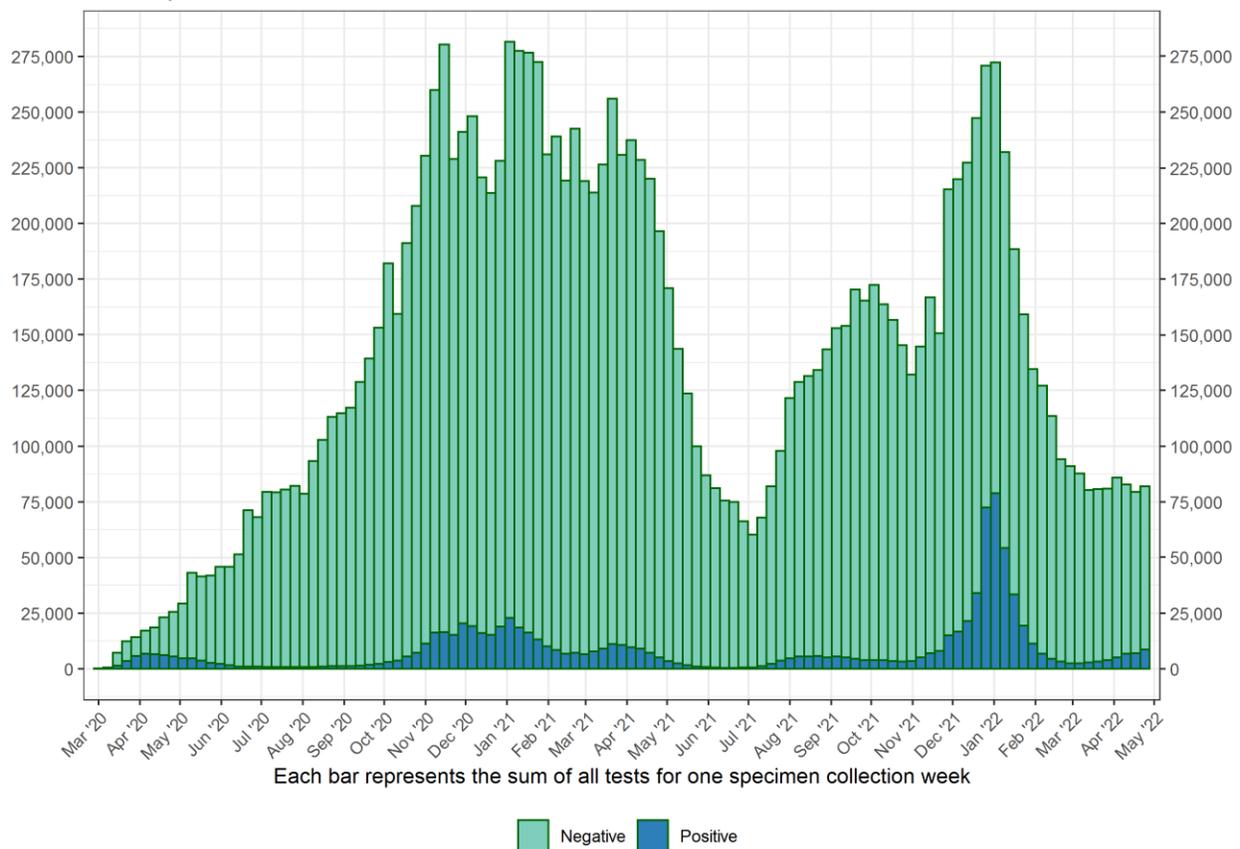
Laboratory Surveillance

Molecular Tests

To date, DPH has received reports on a total of 14,126,966 molecular COVID-19 laboratory tests; of these 13,979,215 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
Weekly test total by Specimen Collection Date
As of May 04, 2022

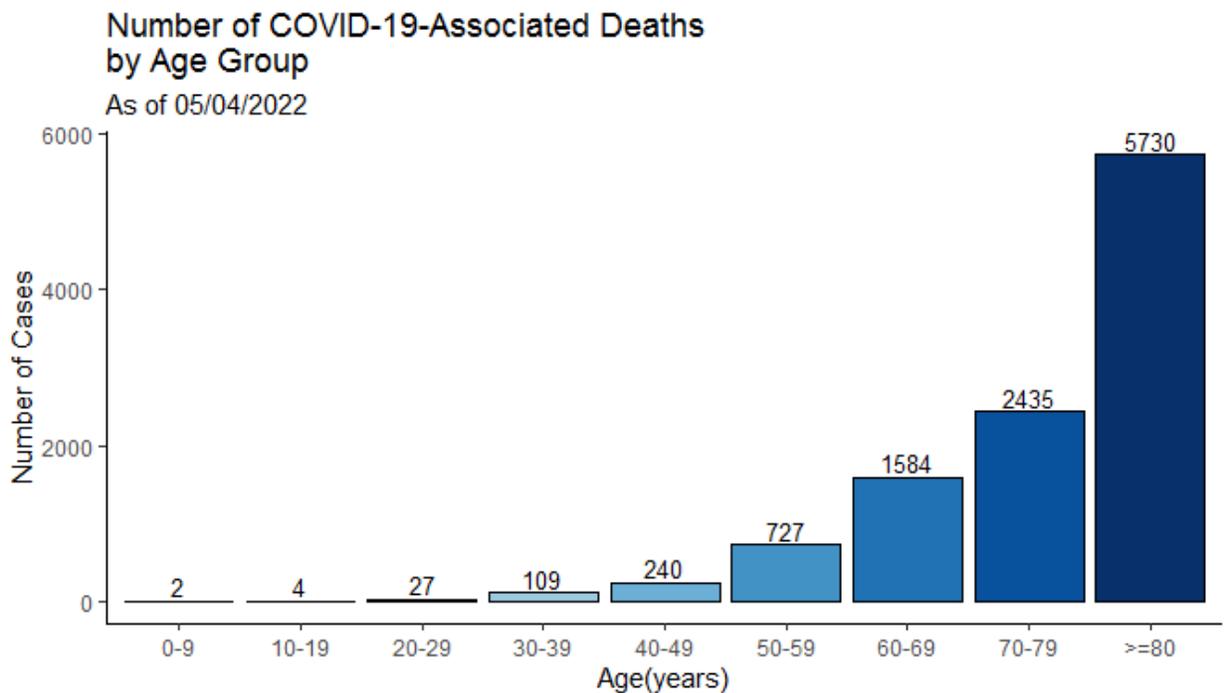
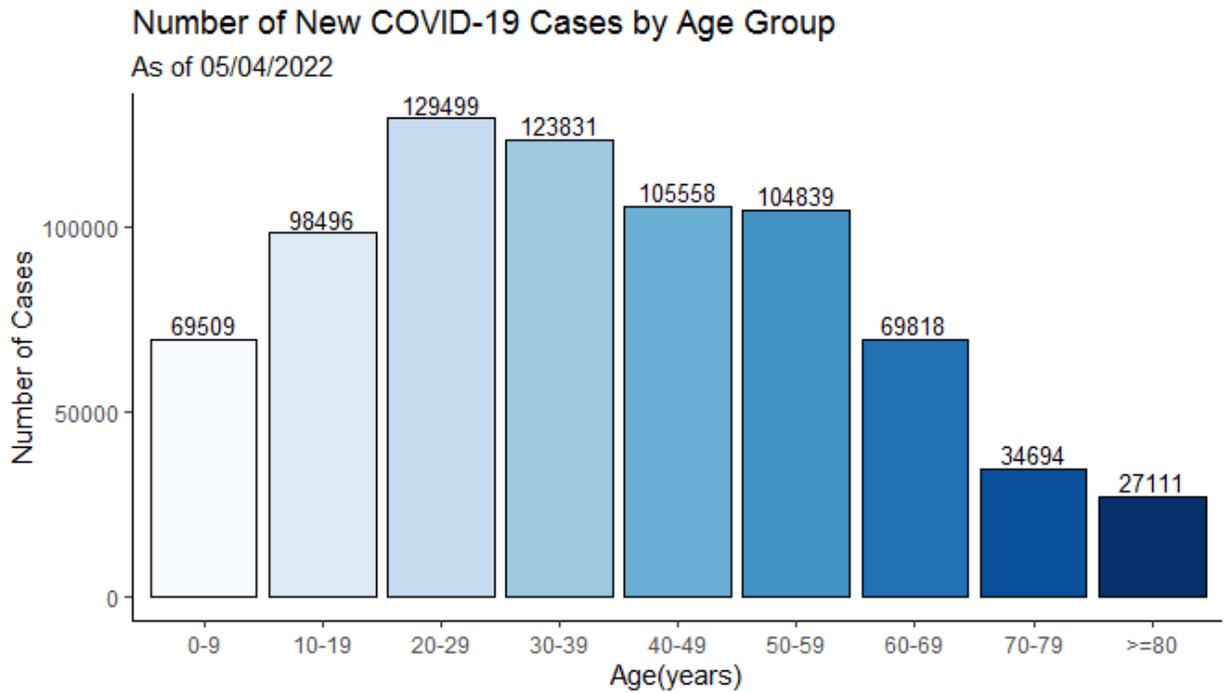


Testing of recently collected specimens is ongoing and does not reflect a decrease in testing. Chart only includes test results received by electronic laboratory reporting.

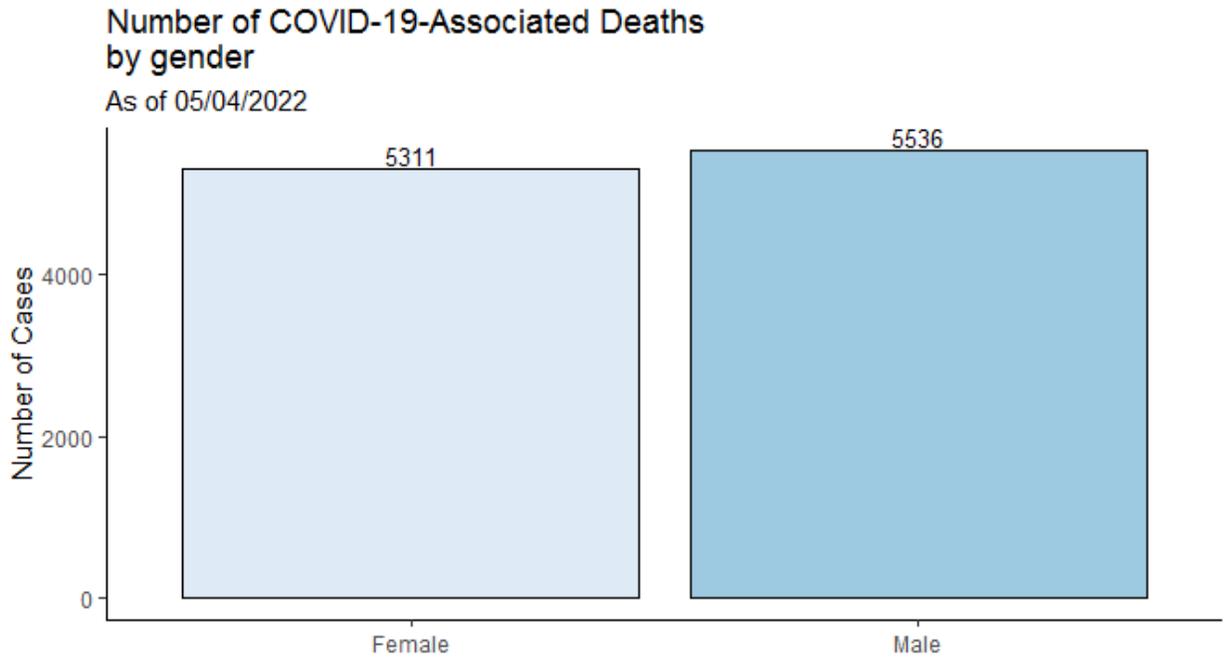
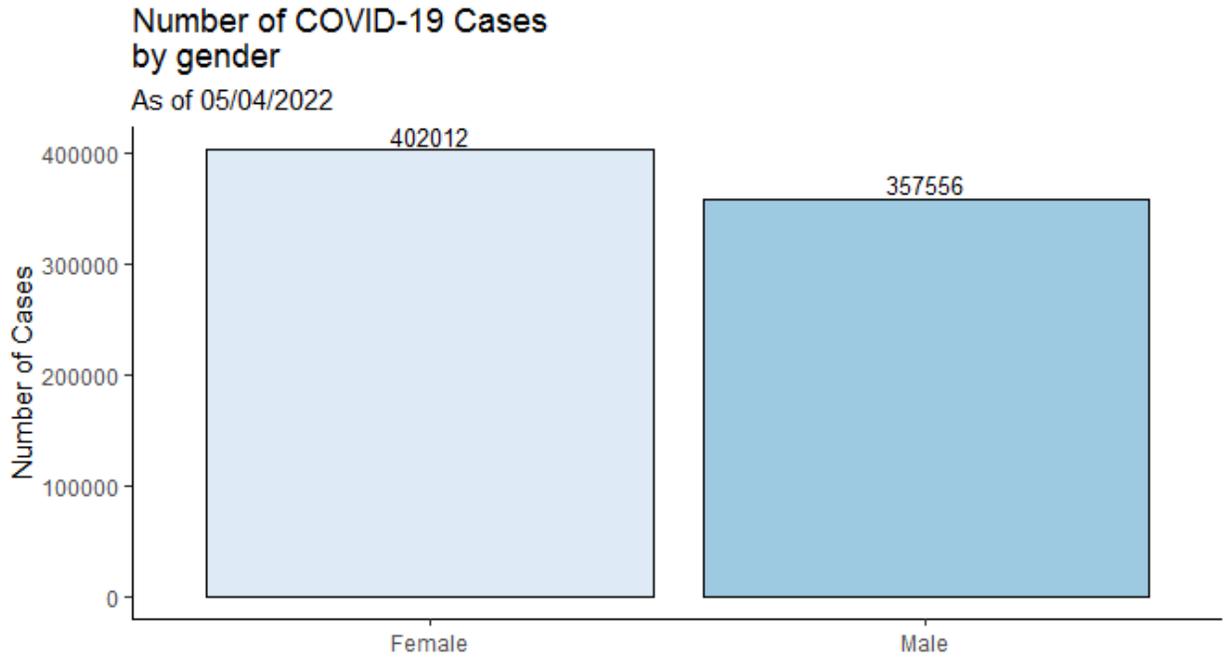
ELR = Electronic Laboratory Reporting

Characteristics of COVID-19 Cases and Associated Deaths

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

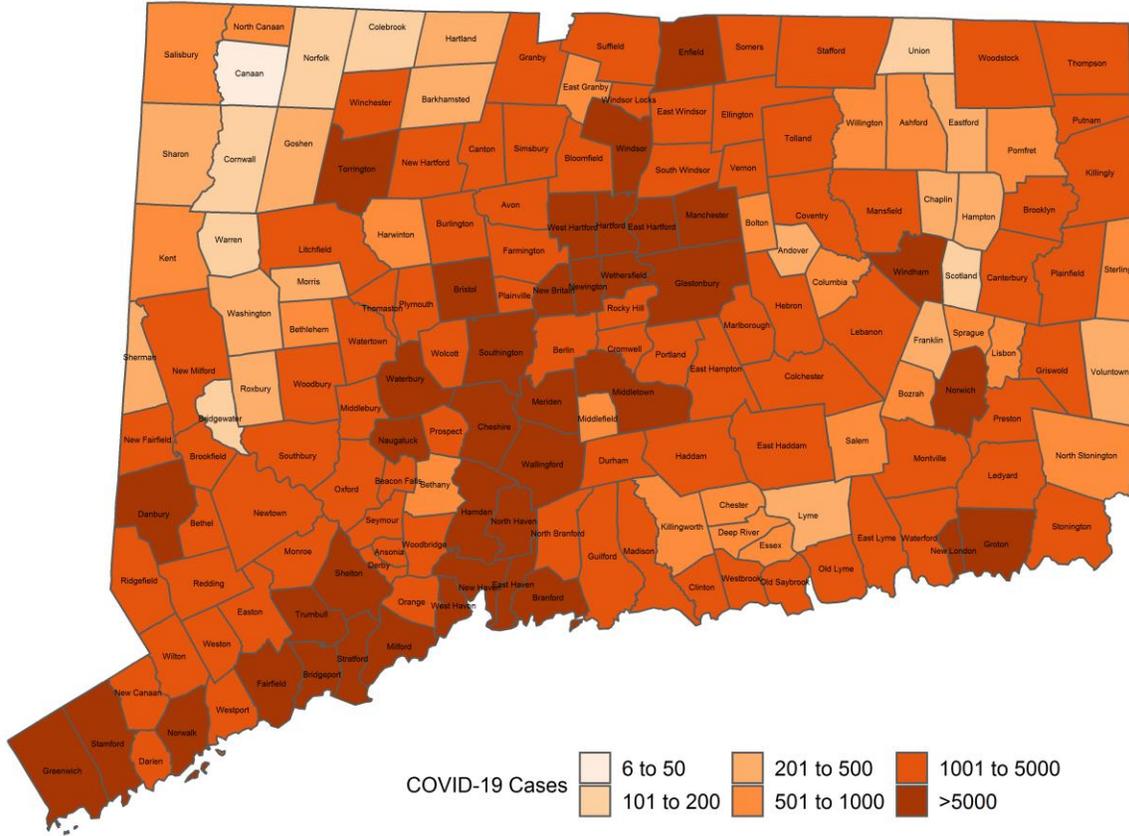


Counts may not add up to total case count because demographic data may be missing.



Cumulative Number of COVID-19 Cases by Town

Map does not include 2310 cases pending address validation

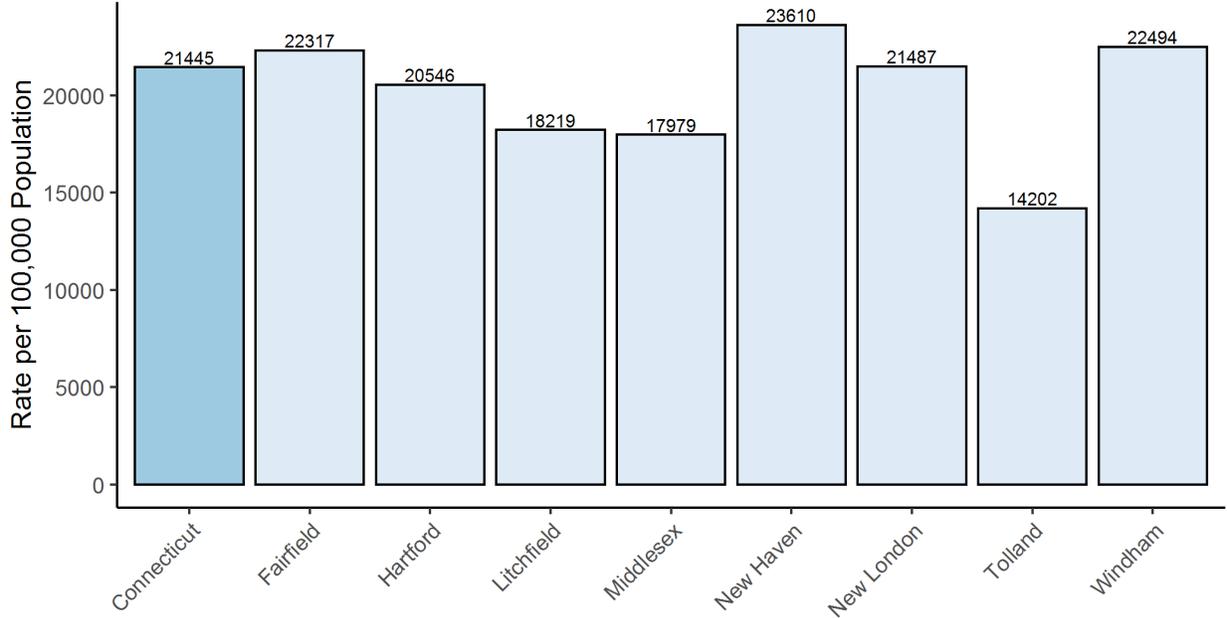


All data are preliminary and subject to change.

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](#)

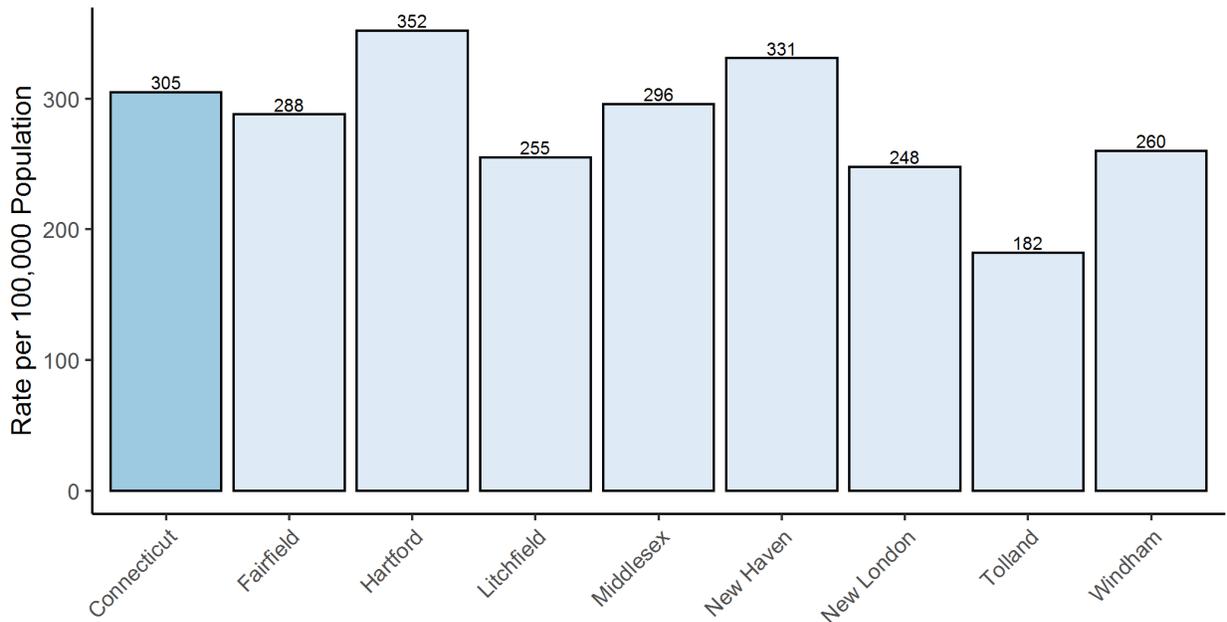
Rate of COVID-19 Cases Statewide and by County

As of 05/04/2022



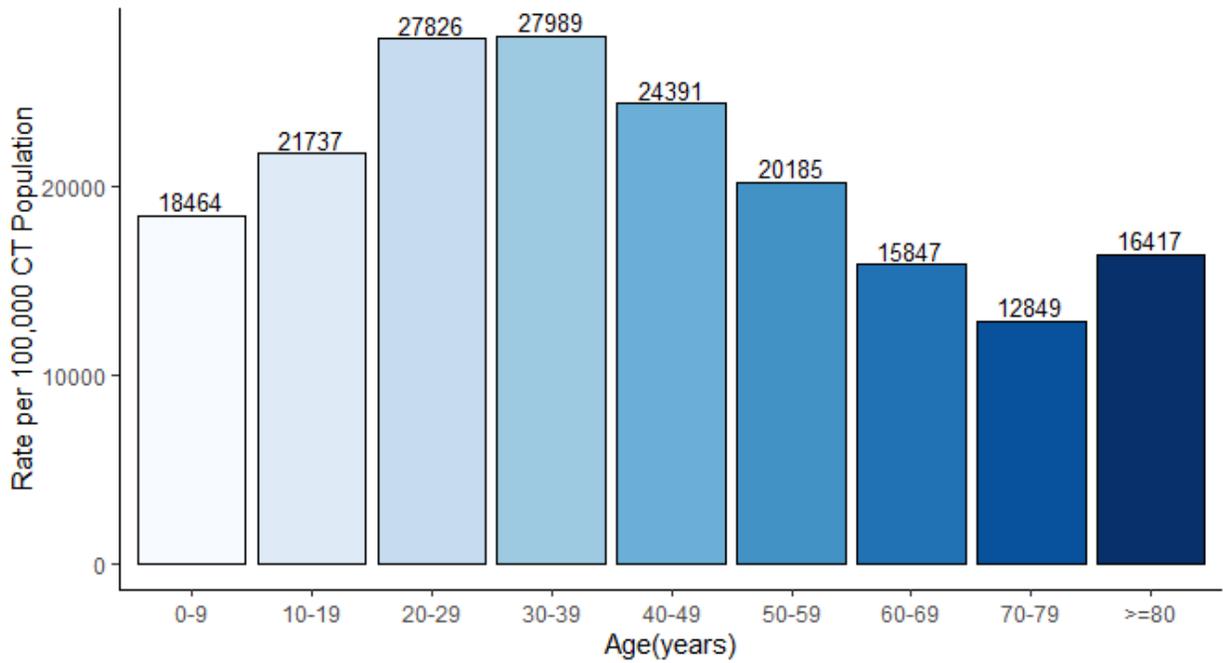
Rate of COVID-19-Associated Deaths Statewide and by County

As of 05/04/2022



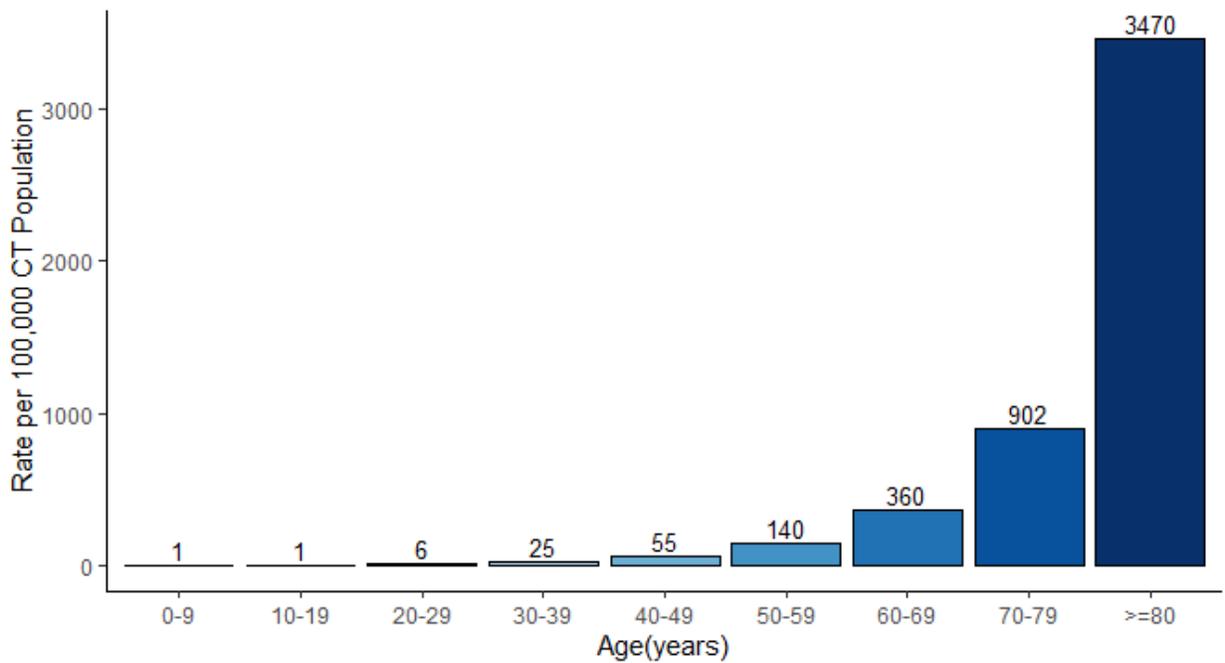
Rate of COVID-19 Cases by Age Group

As of 05/04/2022



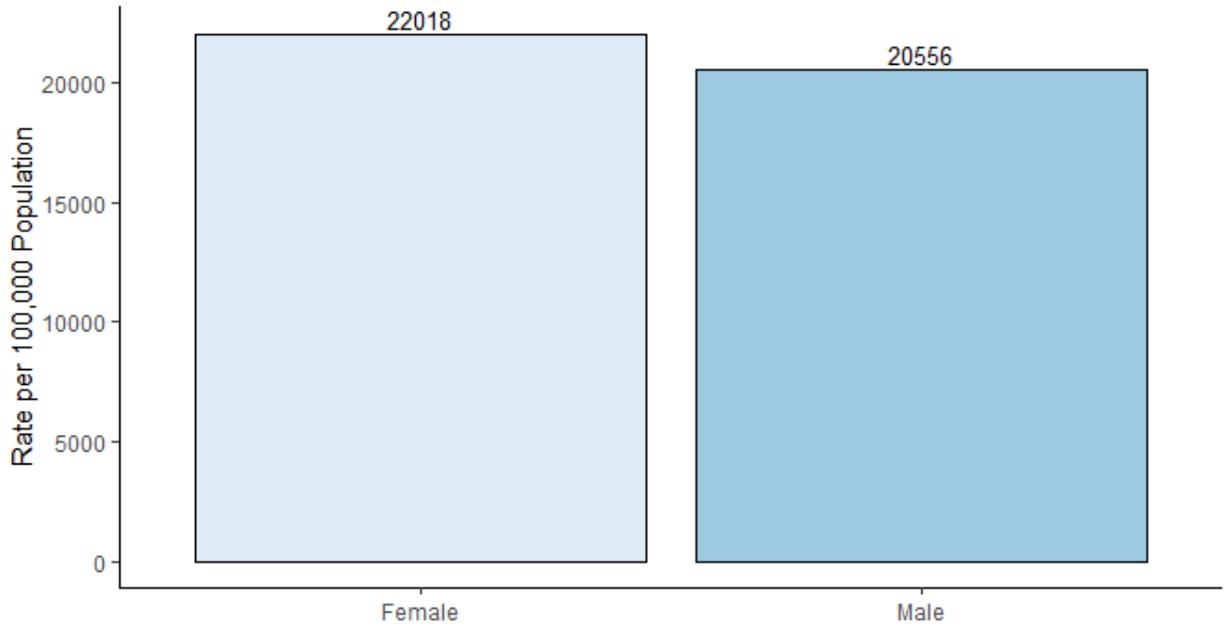
Rate of COVID-19-Associated Deaths by Age Group

As of 05/04/2022



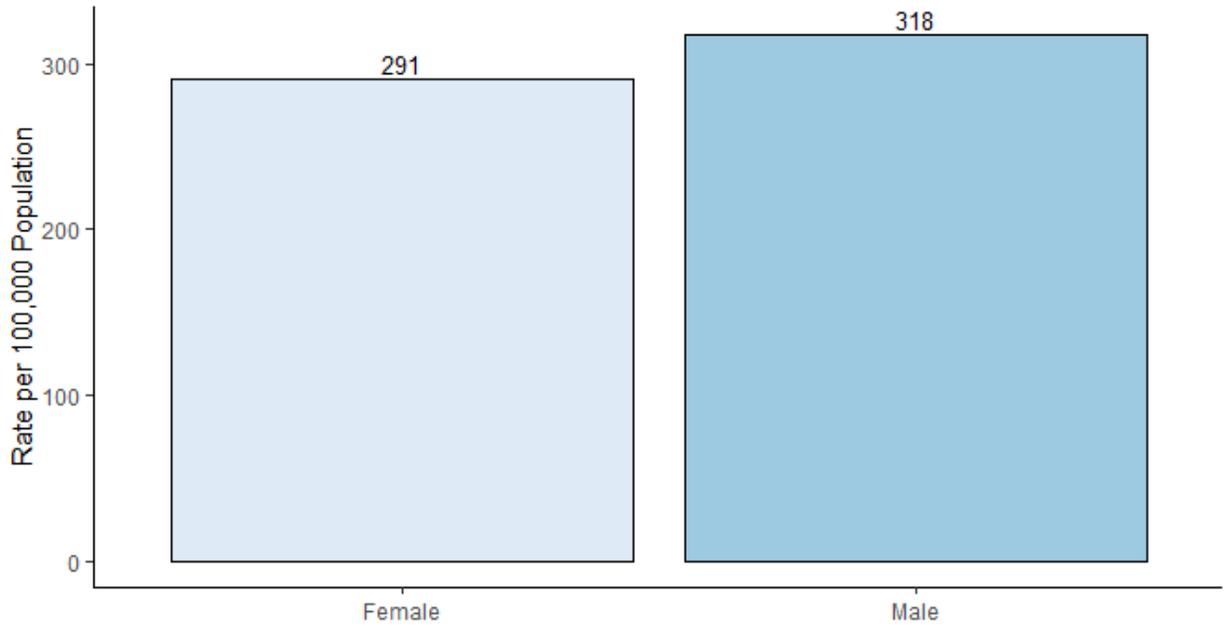
Rate of COVID-19 Cases by Gender

As of 05/04/2022

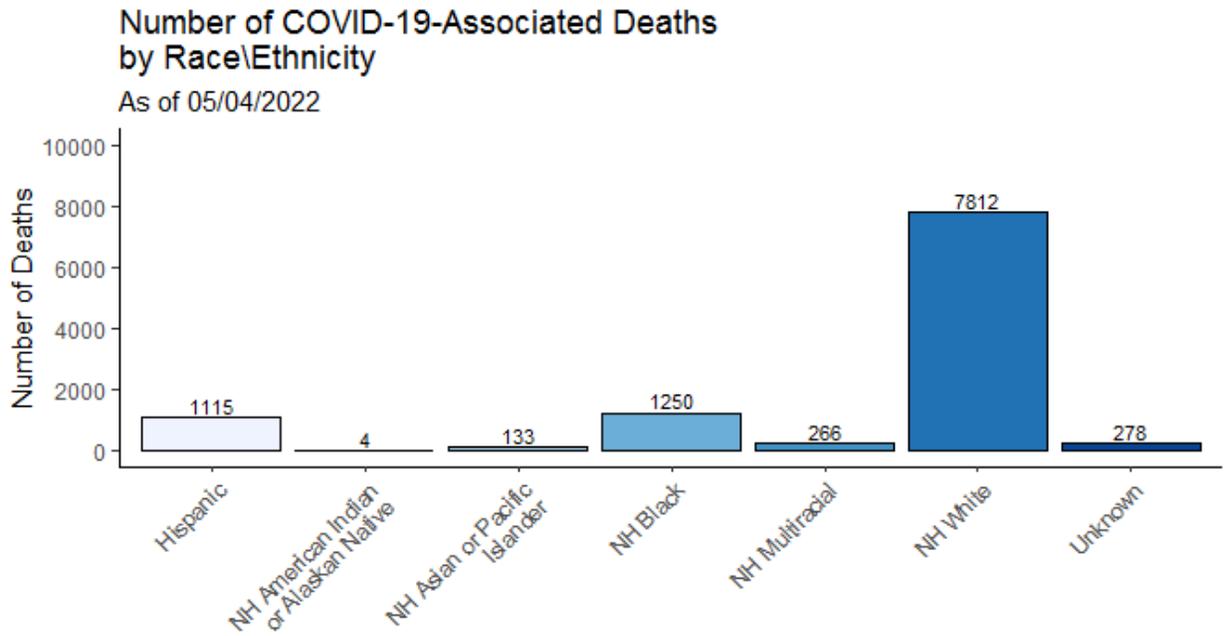
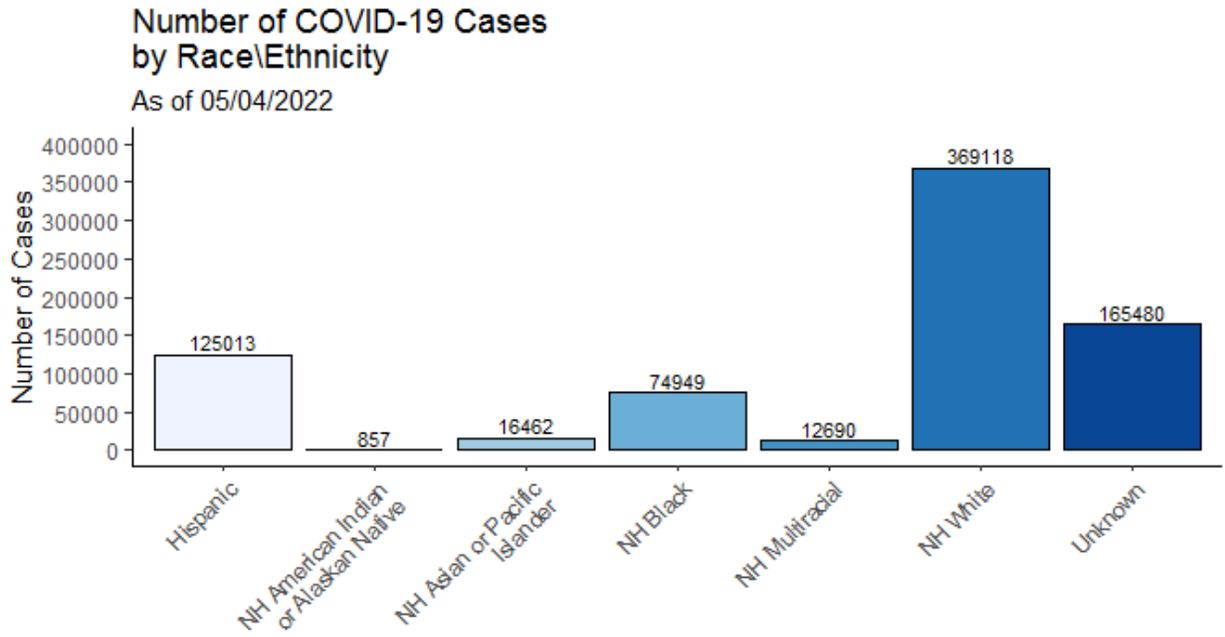


Rate of COVID-19-Associated Deaths by Gender

As of 05/04/2022

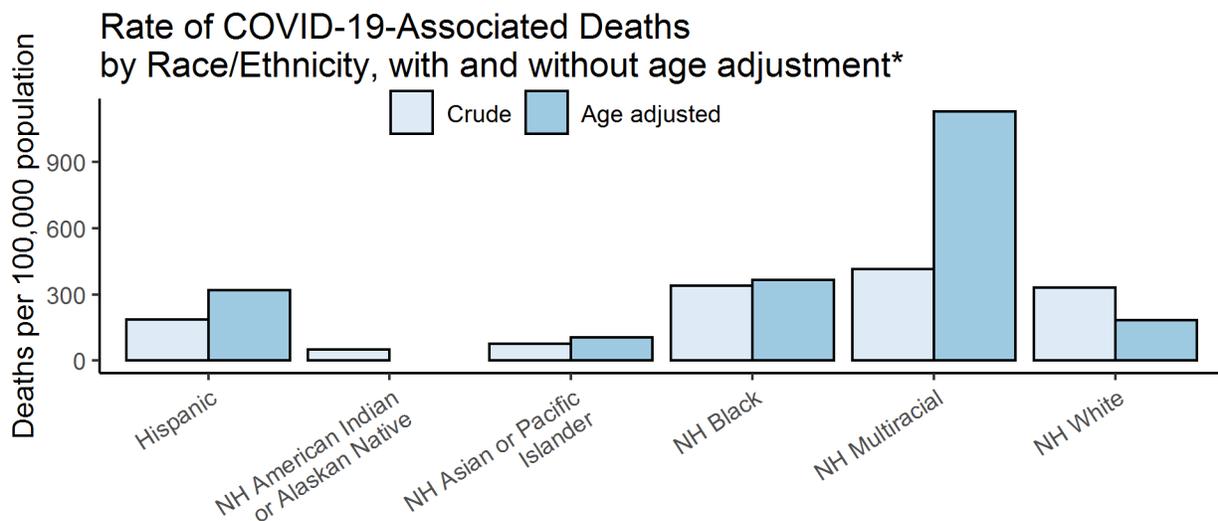
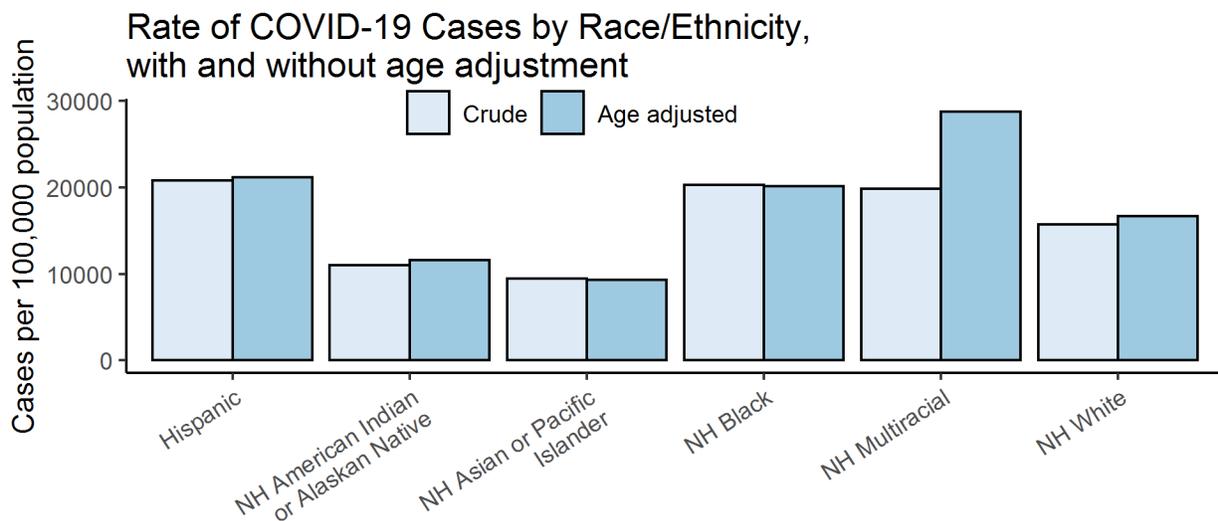


APPENDIX B. The following graphs show the number of cases and deaths by race and ethnicity. Categories are mutually exclusive. The category “multiracial” includes people who answered ‘yes’ to more than one race category. NH=Non-Hispanic



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



*Age adjusted rates only calculated for groups with at least 30 deaths