DEPARTMENT OF HEALTH AND HUMAN SERVICES

CENTERS FOR DISEASE CONTROL AND PREVENTION

Committees on Appropriations of the House of Representatives and the Senate,
Committee on Energy and Commerce of the House of Representatives,
and
Committee on Health, Education, Labor, and Pensions of the Senate

Report to Congress on

Paycheck Protection Program and Health Care Enhancement Act
Disaggregated Data on U.S. Coronavirus Disease 2019 (COVID-19) Testing

Initial 30-Day Update

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Overview

In response to the current emergency response, Congress has appropriated funds to the Department of Health and Human Services (HHS)through the Paycheck Protection Program and Health Care Enhancement Act states which provides, in part:

> *Provided further,* That not later than 21 days after the date of enactment of this Act, the Secretary, in coordination with other appropriate departments and agencies, shall issue a report on COVID–19 testing: *Provided further,* That such report shall include data on demographic characteristics, including, in a de-identified and disaggregated manner, race, ethnicity, age, sex, geographic region and other relevant factors of individuals tested for or diagnosed with COVID–19, to the extent such information is available: *Provided further,* That such report shall include information on the number and rates of cases, hospitalizations, and deaths as a result of COVID–19: *Provided further,* That such report shall be submitted to the Committees on Appropriations of the House and Senate, and the Committee on Energy and Commerce of the House of Representatives and the Committee on Health, Education, Labor, and Pensions of the Senate, and updated and resubmitted to such Committees, as necessary, every 30 days until the end of the COVID–19 public health emergency first declared by the Secretary on January 31, 2020 (P.L. 116-139, Division B, Title I, Page 7)

The Centers for Disease Control and Prevention (CDC) prepared this initial 30-day update report in response to this request from the House and Senate Appropriations Committees, the House Committee on Energy and Commerce, and the Senate Committee on Health, Education, Labor, and Pensions.

Message from the CDC Director, Robert R. Redfield, M.D.

The Paycheck Protection Program and Health Enhancement Act requires CDC to report to Congress, within 21 days of enactment of the legislation and then again every 30 days, on testing for COVID-19. In addition, Congress has asked CDC to provide data on COVID-19 cases, hospitalizations and deaths disaggregated by race, ethnicity, age, sex, geographic region and other relevant factors to the extent that information is available. In response to the first report, members of Congress expressed disappointment with the presentation of the data and lack of analysis. CDC is taking aggressive steps to improve completeness and provides details about some of those actions at the end of this report. CDC is committed to addressing the shortcomings in the nation's public health data system not only for the COVID-19 response, but for all of our public health data. The nation's public health data systems should be able to provide timely, complete and actionable data to address both disease outbreaks and the ongoing health needs of every American. This is an urgent priority for CDC, and for our public health partners and health care providers.

With resources recently provided by Congress and through actions by the HHS Secretary, we are taking decisive steps. CDC is already seeing improvement in the quality and timeliness of our COVID-19 data provided by both public health departments and clinicians. Notably, there has been a significant improvement in demographic data reported through case-based surveillance. In terms of case-based surveillance, at the start of the outbreak, 18% of case reports included information on race/ethnicity. Now more than 42% of case reports include complete data on race/ethnicity data. Additionally, the COVID-NET hospital surveillance system, which includes a catchment of approximately 10% of the U.S. population, currently has race and ethnicity data for about 80% of laboratory-confirmed hospitalized cases.

CDC is collecting data from several of its surveillance systems and an April Morbidity and Mortality Weekly Report (MMWR) reported that a disproportionate burden of COVID-19 illness and death is occurring among racial and ethnic minority groups. This pandemic has further shone a spotlight on the persistent health disparities in this nation. Specifically, the pandemic has highlighted that racial and ethnic minority groups are at higher risk of severe complications from COVID-19 due to co-morbidities such as diabetes, hypertension, cancer and other chronic conditions. Additionally, the social determinants of health[1] are factors contributing to the disproportionate impact of this virus on racial and ethnic minority groups. CDC is committed to its mission to protect all Americans from disease threats and to save lives.

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[1] https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

Introduction and Background

The Coronavirus Disease 2019 (COVID-19) pandemic is the most significant public health challenge to face our nation in more than a century. COVID-19 has forced all Americans to take seriously and address the impact of centuries of inequities that have systematically undermined the physical, social, material, and emotional health of racial and ethnic minority populations and other groups. We must lessen the negative impact of COVID-19 on Black/African Americans, Hispanics/Latinos, American Indians, Alaska Natives, Asian Americans, Pacific Islanders and other racial and ethnic groups that are disproportionately affected by the pandemic. At the Centers for Disease Control and Prevention (CDC), we are working during this time of national tragedy to make positive and permanent changes to our methods of data collection and program implementation. We are also embracing it as a larger opportunity for public health to lead in efforts to reduce health disparities and achieve health equity.

Through the Paycheck Protection Program and Health Enhancement Act, Public Law 116-139, the House and Senate Appropriations Committee, the Committee on Energy and Commerce of the House, and the Committee on Health, Education, Labor, and Pensions of the Senate, requested data on demographic characteristics, including, in a de-identified and disaggregated manner, race, ethnicity, age, sex, geographic region and other relevant factors of individuals tested for or diagnosed with COVID-19. The committees also requested information on the number and rates of cases, hospitalizations, and deaths as a result of COVID-19. CDC values this additional data, and the opportunity to target critical COVID-19 interventions. CDC is working quickly with jurisdictions to improve data collection and reporting accordingly to provide Congress with this critical information.

CDC is working with state and local governments to collect and report data on disease incidence and outcomes by race and ethnicity rapidly, and in a manner that allows for comparison of those data across states and jurisdictions. CDC is also leveraging and enhancing our existing systems to monitor the COVID-19 epidemic and obtain as timely and accurate a picture as possible of the overall situation and health disparities in the United States. Using multiple data systems enables responders to create a mosaic of different data to create a richer information picture for evidence-based clinical and public health decision-making. For example, CDC is using COVID-NET, an active, population-based surveillance system that collects data on laboratory-confirmed COVID-19-associated hospitalizations among children and adults. COVID-NET covers approximately 10% of the U.S. population and produces important data on hospitalization rates associated with COVID-19.[2] CDC is also using mortality data (from death certificates) from both the National Vitals Statistics System (NVSS), maintained by the National Center for Health Statistics (NCHS), as well as data from case-based surveillance to quickly modernize our data collection systems and gain a broader view on the public health impacts for specific groups. Case-based surveillance relies on the collection of reports of cases of illness. These case reports include information such as the symptoms of illness, when those symptoms started, demographic information about the ill person (age, sex, state of residence), and key exposures (e.g., workplace, school, community event) for the specific infection. For example, the Message Mapping Guide will be finalized this month which will allow for states to send additional demographic and exposure variables

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[2] The designated COVID-NET surveillance area is generally similar to the U.S. population by demographics; however, the information might not be generalizable to the entire country.

in an automated manner. Working within these systems and with its partners, CDC is committed to making data available to the public, while also protecting individual privacy.

This report provides a snapshot of CDC's progress toward more complete data as we collectively increase our understanding of the impact of COVID-19[3]. This report contains the data we currently have available, describes efforts to obtain additional data Congress requested, and demonstrates our commitment to modernize our data collection. Web links are provided for the convenience of the reader, since some data elements are update daily and other weekly.

Race and Ethnicity Data – Current Status

Persistent health disparities combined with historic housing patterns,[4] work circumstances,[5][6] and other factors have put members of many racial and ethnic minority populations at higher risk for COVID-19. History shows that severe illness and death rates tend to be higher for some racial and ethnic minority groups during public health emergencies.[7] Data on the impact of COVID-19 on the health of racial and ethnic minority groups are still emerging; however, current data show a disproportionate burden of illness and death among racial and ethnic minority groups. Key facts from our COVID-19 hospitalization data include:

- Within the COVID-NET hospital surveillance system, which includes a catchment of approximately 10% of the U.S. population, non-Hispanic American Indian/Alaska Native populations have a rate of hospitalization approximately 5 times that of non-Hispanic Whites, non-Hispanic Black populations have a rate approximately 4.5 times that of non-Hispanic Whites, while Hispanics/Latinos have a rate approximately 3.5 times that of non-Hispanic Whites.
- Among the 26,623 laboratory-confirmed COVID-19-associated hospitalized cases captured by COVID-NET, 21,282 (79.9%) had information available on race and ethnicity while collection of race and ethnicity data was still pending for 5,341 (20.1%) cases).[8]
- Of the 21,282 cases with race and ethnicity data among laboratory-confirmed COVID-19 associated hospitalized cases within the COVID-NET catchment areas, 35.5% were non-Hispanic White, 33.5% were non-Hispanic Black, 18.2% were Hispanic/Latino, 4.7% were non-

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[3] Please note that some web links default to a main page, and some of the specific demographic data is presented on subsequent pages. CDC's web page is being updated dynamically as we receive new data and feedback from website users. so links and presentation may change.

[4] Jackson SA, Anderson RT, Johnson NJ, Sorlie PD. The relation of residential segregation to all-cause mortality: a study in black and white. Am J Public Health 2000;90(4):615–7.
[5] Berchick ER, Barnett JC, Upton RD. Health Insurance Coverage in the United States: 2018. Current Population Reports, P60-267(RV). U.S. Government Printing Office (Washington, DC) 2019.
[6] US Bureau of Labor Statistics, Report 1082, Labor force characteristics by race and ethnicity, 2018. October 2019. https://www.bls.gov/opub/reports/race-and-ethnicity/2018/home.htm
[7] Dash N. Race and Ethnicity. In: Thomas DSK, Phillips BD, Lovekamp WE, Fothergill A. editors. Social Vulnerability to Disasters. 2nd edition. Boca Raton (FL): CRC Press, Taylor & Francis Group. 2013. P. 113-128
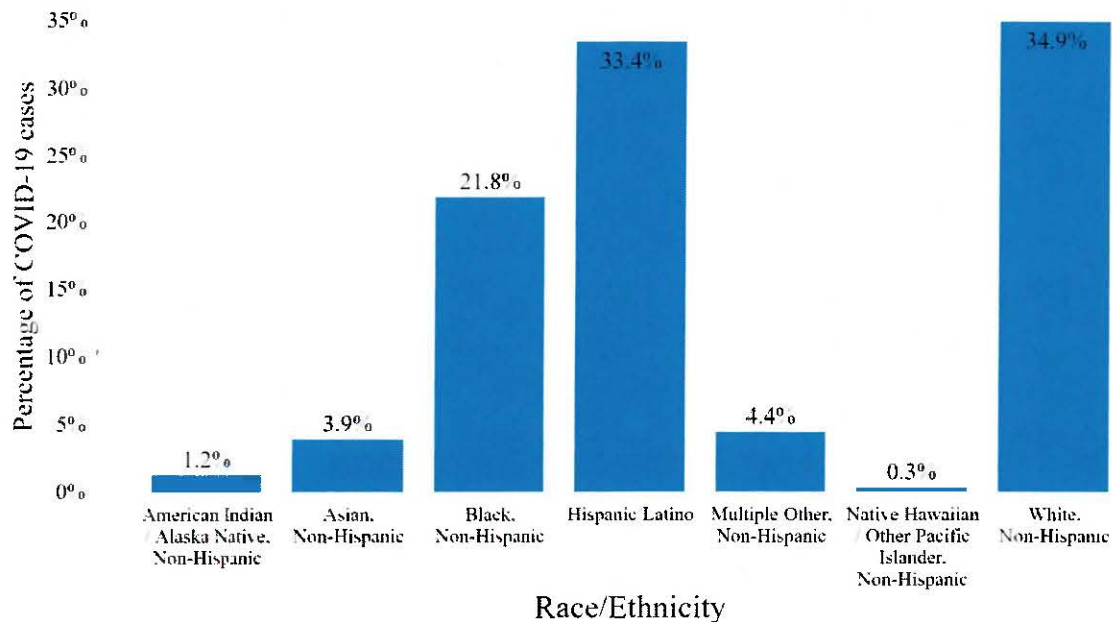[8] COVID-NET is limited to COVID-19-associated hospitalizations captured in the COVID-NET surveillance area. COVID-NET reports rates and not just counts. These rates show how many people are hospitalized with COVID-19 in the surveillance area, compared to the entire number of people residing in that area.

Hispanic Asian/Pacific Islander, 1.5% were non-Hispanic American Indian/Alaska Native, 0.2% were multiple races, and 6.4% had unknown race and ethnicity.

Cases by Race/Ethnicity

The chart below shows the race/ethnicity of people with COVID-19 reported to CDC from the National Notifiable Diseases Surveillance System, which includes reports of case-level data. As of June 4, case-level data was available for 1,471,676 cases, but race/ethnicity data were reported to CDC for 623,327 (42.4%) cases. A limitation of the data system is that data on race and ethnicity are only available for geographic areas that contributed data on race and ethnicity. Every geographic area has a different racial and ethnic composition, and so this data are not generalizable to the entire U.S. population. If cases were distributed equally across racial and ethnic populations, one would expect to see more cases in those populations that are more highly represented in geographic areas that contributed data. For example, the U.S. population is about 20% Hispanic or Latino, but 33% of people with reported COVID-19 were Hispanic or Latino. Similarly, the U.S. Population is about 13% non-Hispanic Black, but 22% of people with reported COVID-19 were non-Hispanic Black. This indicates a potential disproportionate burden among Hispanic or Latino persons, Latino and non-Hispanic Black people. Case reporting information can be found here: https://data.cdc.gov/Case-Surveillance/COVID-19-Case-Surveillance-Public-Use-Data/vbim-akqf[9]
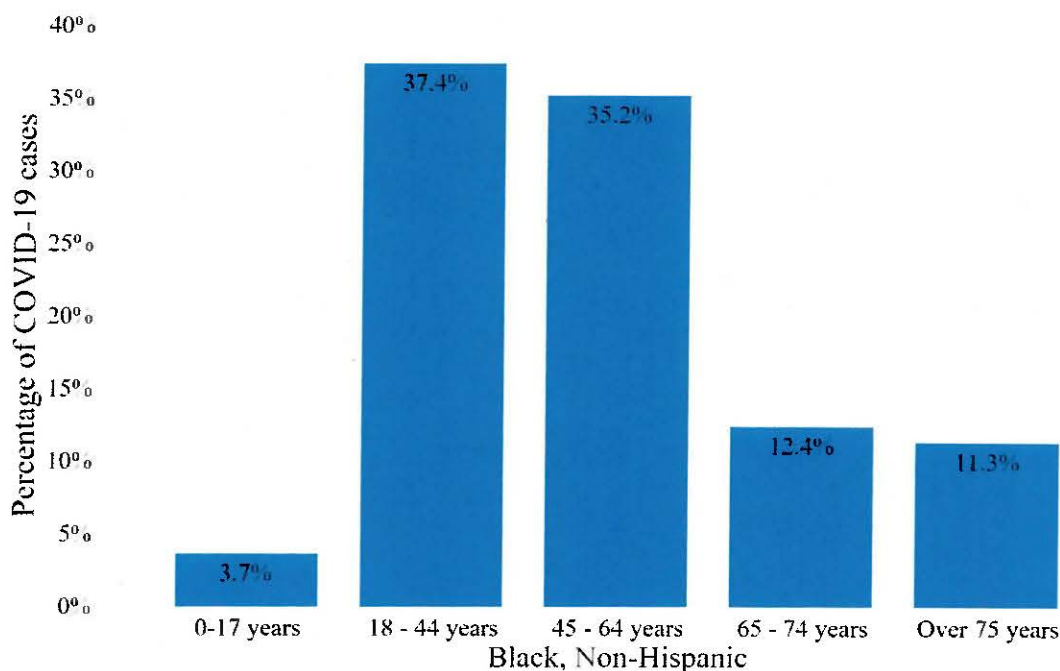
Chart 1: Percentage of COVID-19 Cases by Race/Ethnicity

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[9] Note that this dataset does not contain race/ethnicity at this time; restricted access datasets are available that do contain these variables

The majority of COVID-19 cases in non-Hispanic Blacks occur in individuals between 18-64 years of age. The chart below shows the number of cases by age group for non-Hispanic Black people. These data are based on 138,611 cases where age was known and the race was reported as non-Hispanic Blacks.

Chart 2: Percentage of Black, non-Hispanic COVID-19 Cases by Age Group

Non-Hispanic Black individuals between the ages of 18 and 64 collectively made up 71.8% of non-Hispanic Black COVID-19 cases.
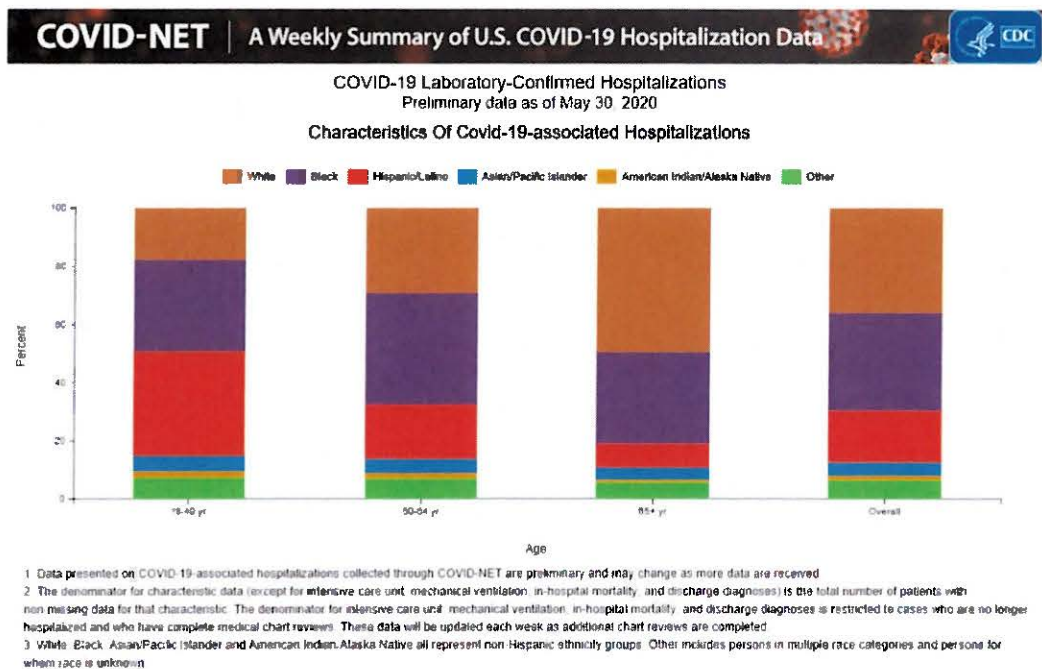
Hospitalizations by Race/Ethnicity

Within the COVID-NET hospital surveillance system, which includes a catchment of approximately 10% of the U.S. population, a total of 26,623 laboratory-confirmed COVID-19-associated hospitalizations were reported by sites between March 1, 2020, and May 30, 2020. This surveillance system was built upon the platform of the influenza hospital surveillance system, FluSurv-NET, and offers more complete racial/ethnic data. Among the 26,623 laboratory-confirmed COVID-19-associated hospitalized cases, 21,282 (79.9%) had information available on race and ethnicity while collection of race and ethnicity data was still pending for 5,341 (20.1%) cases. Table 1 outlines the percent hospitalizations of the 21,282 cases with race and ethnicity data.

Table 1: Percentage of COVID-19 Hospitalizations by Race/Ethnicity

Asian/Pacific Islander, non-Hispanic	4.%
Black, non-Hispanic	33.5%
Hispanic/Latino	18.2%
American Indian/Alaska Native, non-Hispanic	1.5%
Multiple/Other, non-Hispanic	0.2%
White, non-Hispanic	35.5%
Unknown race/ethnicity	6.4%

Chart 3, below, shows the racial/ethnic characteristics of hospitalized patients broken out by age group.

Chart 3: Hospitalized Patients by Race/Ethnicity and Age Group
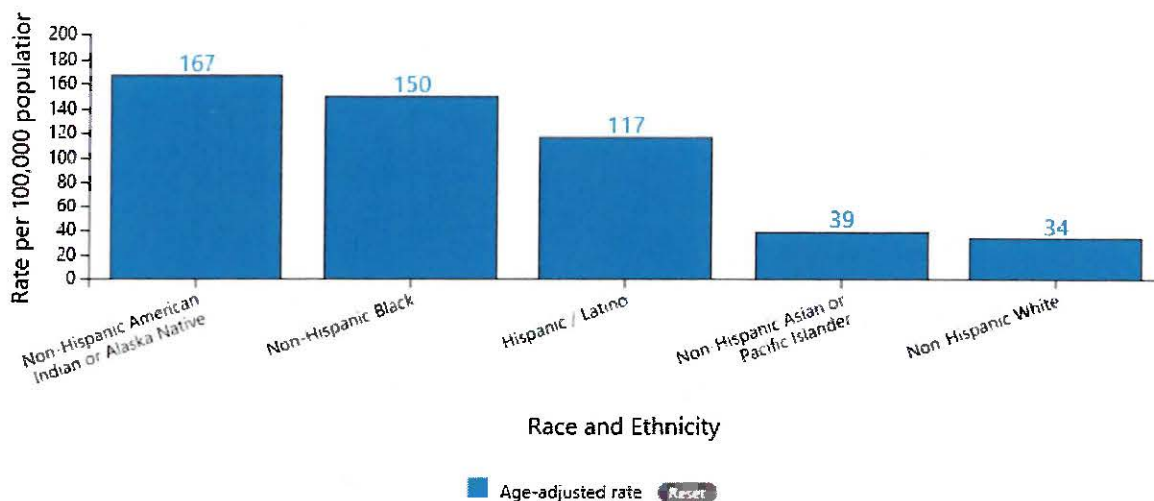

Available online here: https://gis.cdc.gov/grasp/COVIDNet/COVID19_5.html

COVID-19-associated hospitalization rates by race and ethnicity are calculated using hospitalized COVID-NET cases with known race and ethnicity for the numerator and National Center for Health Statistics (NCHS) bridged-race population estimates for the denominator. Rates are adjusted to account for differences in age distributions within race and ethnicity strata in the COVID-NET catchment area; the age strata used for the adjustment include 0-17, 18-49, 50-64, 75-84, and ≥85 years.[10]

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[10] The overall cumulative COVID-19 associated hospitalization rate is 82.0 per 100,000, with the highest rates in people 65 years of age and older (254.7 per 100,000) followed by people 50-64 years (126.2 per 100,000). Hospitalization rates are cumulative and will increase as the COVID-19 pandemic continues.

Age-adjusted hospitalization rates are highest in non-Hispanic American Indian/Alaska Native and non-Hispanic Black populations, followed by Hispanic/Latino. Non-Hispanic American Indian/Alaska Native populations have a hospitalization rate of approximately 5 times that of non-Hispanic Whites, non-Hispanic Black populations have a rate approximately 4.5 times that of non-Hispanic Whites, while Hispanics/Latinos have a rate approximately 3.5 times that of non-Hispanic Whites. The chart below shows the differences in age-adjusted hospitalizations across racial and ethnic groups.

Chart 4: Age-adjusted COVID-19-associated hospitalization rates by race and ethnicity, COVID-NET, March – May 30, 2020

COVID-19 Deaths by Race and Ethnicity

The information on COVID-19 deaths by race and ethnicity is available on the NCHS website and is shown in Table 2 below. The NCHS COVID-19 death counts are tabulated from death certificates, whereas death totals elsewhere are from case reports. COVID-19 counts based on death certificate data are lagged by about 2 weeks compared to other sources. Total deaths from NCHS death counts totaled 88,243 as of June 3.

Table 2: COVID-19 Deaths by race and ethnicity from NCHS

Race and Hispanic Origin Group	COVID-19 Deaths
American Indian or Alaska Native, non-Hispanic	0.6%
Asian, non-Hispanic	5%
Black, non-Hispanic	23%
Hispanic or Latino	16%
More than one race, non-Hispanic	0.2%
Native Hawaiian or Other Pacific Islander, non-Hispanic	0.2%
Unknown	1%
White, non-Hispanic	54%

Chart 5, below, shows deaths involving COVID-19 by race and Hispanic origin group for all age groups in the United States from February 1, 2020 through June 3, 2020. Race and Hispanic origin data are available at: https://www.cdc.gov/nchs/nvss/vsrr/covid_weekly/index.htm

In addition, as part of case surveillance, CDC tracks whether a COVID-19 positive person died. Case-level data on whether a test-positive person died was available for 77,111 cases. Of those cases, race/ethnicity was available for 57,086 (74%) people. The chart below shows the breakdown of these deaths by race/ethnicity.

Chart 5: COVID-19 Deaths by race/ethnicity

CDC has been working to disaggregate data further among Asian American Pacific Islander groups to allow for differentiation among specific race/ethnicities such as Chinese American, Japanese American, and others. Unfortunately, with currently available data there are several factors that impact our ability to disaggregate at this level; please see Appendix C for details.

Actions to Improve Completeness of Race/Ethnicity Data in COVID-19 Surveillance and Laboratory Reporting Systems

CDC has noted elsewhere that investment in data modernization is needed to bring public health into the 21st century with shared platforms that support a networked set of data systems. In advance of those systems coming online, HHS and CDC have taken several key actions to improve states' COVID-19

reporting on crucial data elements such as race, ethnicity, and geographic location, among others:

- On May 15, CDC released a new Case Report Form for states to use for reporting more detailed demographic case data;
- On April 23, CDC required reporting including testing of populations that may be at higher risk for severe illness including elderly, disabled, those in congregate living facilities, racial and ethnic minority populations, and other groups, for Epidemiology and Laboratory Capacity grant recipients in conjunction with funding from the Paycheck Protection Program and Health Care Enhancement Act; and
- On June 4, 2020, HHS issued new guidance for required laboratory reporting through the Coronavirus Aid, Relief, and Economic Security (CARES) Act that standardizes reporting to ensure that public health officials have access to comprehensive and nearly real-time data to inform decision making in their response to COVID-19.

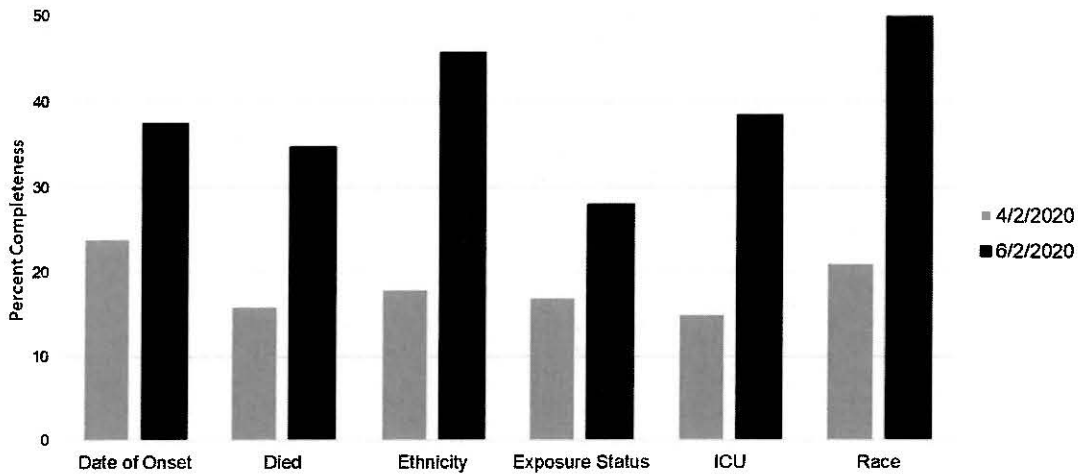These three key efforts are outlined in more detail below.

New Case Report Form

Case-based reporting is crucial early in a pandemic to track emergence and spread of the infection. Individuals with COVID-19 symptoms are tested and case reports are needed for determining case numbers, estimating infection rates, trends over time, geographic distributions and outbreaks. The initial "long" reporting form worked well when states and jurisdictions could keep up, but as the outbreak grew, fewer submitted forms containing complete data. Missing data for some questions in the form creates a challenge in understanding whether the subset of data received are representative of the U.S. population. While some data fields were reliably reported (state, county, age, sex are ~93-100% complete) others were less reliably completed. Specifically, race/ethnicity and symptom onset date were less than 50% complete. There has also been a lag or lack of reporting by states on important factors like other demographics.

CDC, in collaboration with the Council of State and Territorial Epidemiologists (CSTE) COVID-19 leaders, updated the Case Report Form (CRF) for COVID-19 cases (first implemented on February 24). CDC asked states to begin using the updated case report form by May 15. CDC developed the CRF to standardize the reporting of information on COVID-19 cases. The initial CRF included questions for sex, age, race and ethnicity and whether the case is part of a recognized outbreak. The revised form includes additional variables for populations that may be at higher risk for severe illness (e.g., tribes) and risk factors (e.g., homelessness, disabilities, and other factors). The graph below demonstrates improvement in the completeness of reporting by states for date of onset, deaths, ethnicity, exposure status,[11] intensive care unit (ICU), and race variables since April 2, 2020 compared with June 2, 2020.

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[11] Exposure status includes an individual's recent exposure to, for example, international travel, group settings, among others. See Appendix D for details.

Chart 6: CDC COVID-19 Case Report Form percentage of completeness by demographics, April and June 2020

States have improved the level of reporting they make to CDC in the past two months in percent completion of data to include race/ethnicity from 18% completion in April to 42% currently. Despite this progress, we recognize that this is still far below complete information for which we strive and are undertaking further actions including those described below to increase this critical reporting.

Additional reporting requirements in conjunction with ELC grants

The Paycheck Protection Program and Health Care Enhancement Act, Public Law 116-139, provided HHS $11 billion to support testing for COVID-19/SARS-CoV-2. CDC utilized the existing Epidemiology and Laboratory Capacity (ELC) grant to award $10,250,000,000 to 64 state, territorial, and local jurisdictions and $750,000,000 was provided to the Indian Health Service. In conjunction with optimizing testing and increasing test volumes for COVID-19/SARS-CoV-2, resources will also help support the establishment of modernized public health surveillance systems at the state, territorial, and local levels. These modernized systems will support the public health response to COVID-19 and lay the foundation for the future of public health surveillance. Grant recipients were to include, among other things, plans for testing of populations that may be at higher risk for severe illness including elderly, disabled, those in congregate living facilities including prisons, racial and ethnic minority populations, and other groups at increased risk due to high frequency of occupational or nonoccupational contacts. In developing plans for use of the funds, grantees were asked to explicitly detail how a minimum of 2% of the state's population will be tested each month beginning immediately.

COVID-19 Pandemic Response, Laboratory Data Reporting: CARES Act Section 18115

The Coronavirus Aid, Relief, and Economic Security (CARES) Act, Public Law 116-136, requires, every laboratory that performs or analyzes a test that is intended to detect SARS-CoV-2 or to diagnose a possible case of COVID-19 to report the results from each test to the HHS.

In addition to requiring the reporting of lab tests, the CARES Act authorizes the Secretary to "prescribe the form and manner, and timing and frequency, of such reporting." According to HHS guidance

released June 4, 2020, all laboratories performing testing at point of care or with at-home specimen collection related to SARS-CoV-2 shall report data for all testing completed, for each individual tested, within 24 hours of results being known or determined, on a daily basis to the appropriate state or local public health department based on the individual's residence.

Data should be sent to state or local public health departments using existing reporting channels to ensure rapid initiation of case investigations by those departments, concurrent to laboratory results being shared with an ordering provider, or patient as applicable. The requirements include multiple data elements for all SARS-CoV-2 laboratory tests which provide a more granular level of data and includes zip code, race, ethnicity, and county. A full list of data elements is available in Appendix A. For background on additional COVID-19 surveillance systems see Appendix B.
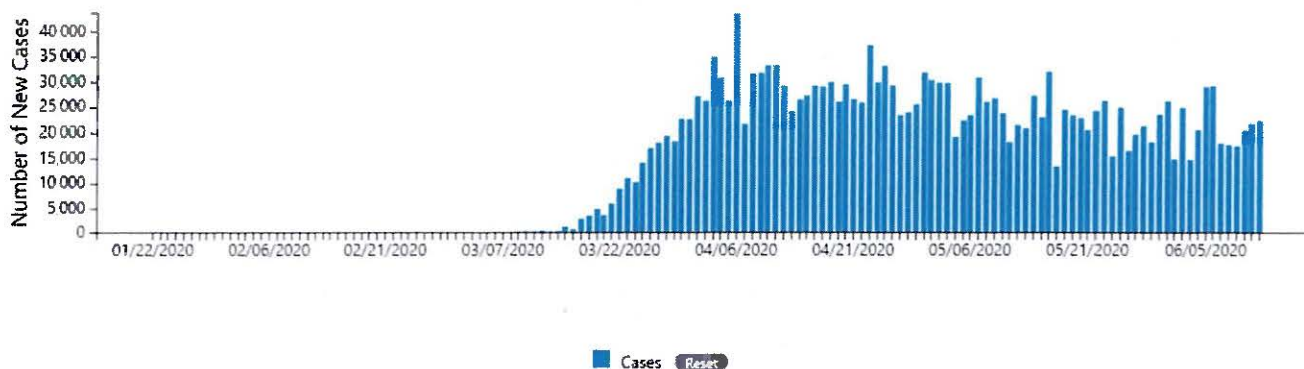
Demographic Characteristics COVID-19

As noted previously, the Paycheck Protection Program and Health Enhancement Act, Public Law 116-139, the House and Senate Appropriations Committee, the Committee on Energy and Commerce of the House, and the Committee on Health, Education, Labor, and Pensions of the Senate, also requested data on demographic characteristics. This section of the report outlines overall demographic data. It is not specific to race/ethnicity.

Cases
As of June 14, 2020, there were 2,063,812 total cases of COVID-19 in the U.S. and 115, 271 deaths. Reported incidence was similar among males and females. Chart 7, below, outlines the numbers of new COVID-19 cases reported each day in the U.S. since the beginning of the outbreak. At the peak, on April 8, there were 43,438 new cases reported. This chart is updated daily on CDC's website and can be found at: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html

Chart 7: Number of New COVID-19 Cases by day

Cases can also be analyzed by jurisdiction. This table shows aggregate COVID-19 cases and deaths reported by U.S. states, the District of Columbia, New York City, and other U.S.-affiliated jurisdictions. Confirmed and probable cases and deaths are provided when available, when not available this is designated by N/A (not available). New York State's case and death counts do not include New York City's counts as it is a separate reporting jurisdiction. The table highlights the jurisdiction-validated case and death counts for each jurisdiction. Total case counts are reported by all jurisdictions, However, not all jurisdictions report confirmed, and probable case and death counts separately; some only report an aggregate count for cases, deaths, or both. When the number is only available in aggregate, confirmed and probable cases and deaths are reported as N/A.

Table 3: COVID-19 Case counts and deaths by jurisdiction*

Jurisdiction	Abbrev.	Total Cases	Confirmed Cases	Probable Cases	Total Deaths	Confirmed Deaths	Probable Deaths
Alabama	AL	25368	24988	380	774	769	5
Alaska	AK	654	N/A	N/A	12	N/A	N/A
American Samoa	AS	0	N/A	N/A	0	N/A	N/A
Arizona	AZ	34458	34146	312	1183	1116	67
Arkansas	AR	12095	N/A	N/A	177	N/A	N/A
California	CA	145643	N/A	N/A	4989	N/A	N/A
Colorado	CO	29017	26408	2609	1598	1272	326
Connecticut	CT	44994	43078	1916	4186	3342	844
Delaware	DE	10264	9313	951	422	397	25
District of Columbia	DC	9709	N/A	N/A	511	N/A	N/A
Florida	FL	0	0	0	0	0	0
Georgia	GA	71589	N/A	N/A	2925	N/A	N/A
Guam	GU	56801	N/A	N/A	2446	N/A	N/A
Hawaii	HI	182	N/A	N/A	5	N/A	N/A
Idaho	ID	680	N/A	N/A	17	N/A	N/A
Illinois	IL	3399	3061	338	87	67	20
Indiana	IN	132732	131871	861	6470	6289	181
Iowa	IA	39543	N/A	N/A	2413	2231	182
Kansas	KS	23717	N/A	N/A	650	N/A	N/A
Kentucky	KY	11047	11047	0	243	N/A	N/A
Louisiana	LA	12445	12125	320	499	497	2
Maine	ME	46283	N/A	N/A	3004	2891	113
Marshall Islands	RMI	2757	2452	305	100	N/A	N/A
Maryland	MD	61701	N/A	N/A	2939	2811	128
Massachusetts	MA	105395	101070	4325	7576	7420	156
Michigan	MI	65836	59801	6035	6013	5768	245
Micronesia	FSM	30172	N/A	N/A	1314	1283	31
Minnesota	MN	19348	19216	132	889	873	16
Mississippi	MS	15810	N/A	N/A	879	N/A	N/A
Missouri	MO	588	588	0	18	18	0

Montana	MT	16633	N/A	N/A	216	N/A	N/A
Nebraska	NE	10964	N/A	N/A	481	N/A	N/A
Nevada	NV	5299	N/A	N/A	318	N/A	N/A
New Hampshire	NH	166603	N/A	N/A	12589	N/A	N/A
New Jersey	NJ	9621	N/A	N/A	431	N/A	N/A
New Mexico	NM	173137	N/A	N/A	8489	N/A	N/A
New York (excluding New York City)	NY	206322	206322	0	22076	17388	4688
New York City	NYC	42676	N/A	N/A	1104	N/A	N/A
North Carolina	NC	3058	N/A	N/A	74	N/A	N/A
North Dakota	ND	30	30	0	2	2	0
Northern Marianas	MP	40848	37893	2955	2554	2324	230
Ohio	OH	7640	7629	11	369	369	0
Oklahoma	OK	5535	5355	180	174	173	1
Oregon	OR	0	N/A	N/A	0	N/A	N/A
Palau	PW	78462	76237	2225	6211	N/A	N/A
Pennsylvania	PA	5690	N/A	N/A	146	N/A	N/A
Puerto Rico	PR	0	0	0	0	0	0
Rhode Island	RI	15947	N/A	N/A	833	N/A	N/A
South Carolina	SC	17955	17955	0	599	599	0
South Dakota	SD	5833	N/A	N/A	75	74	1
Tennessee	TN	29541	N/A	N/A	472	N/A	N/A
Texas	TX	86011	N/A	N/A	1957	N/A	N/A
Utah	UT	72	N/A	N/A	6	N/A	N/A
Vermont	VT	14184	N/A	N/A	139	N/A	N/A
Virgin Islands	VI	1125	N/A	N/A	55	N/A	N/A
Virginia	VA	54506	52103	2403	1546	1438	108
Washington	WA	25538	N/A	N/A	1213	N/A	N/A
West Virginia	WV	2274	2198	76	88	N/A	N/A
Wisconsin	WI	25031	22518	2513	697	691	6
Wyoming	WY	1050	832	218	18	18	0

* as of 06/14/2020

This table is available on the CDC website, where it is also visualized in a map. By hovering over a jurisdiction on the website, you can determine the exact number of reported cases for that state: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html

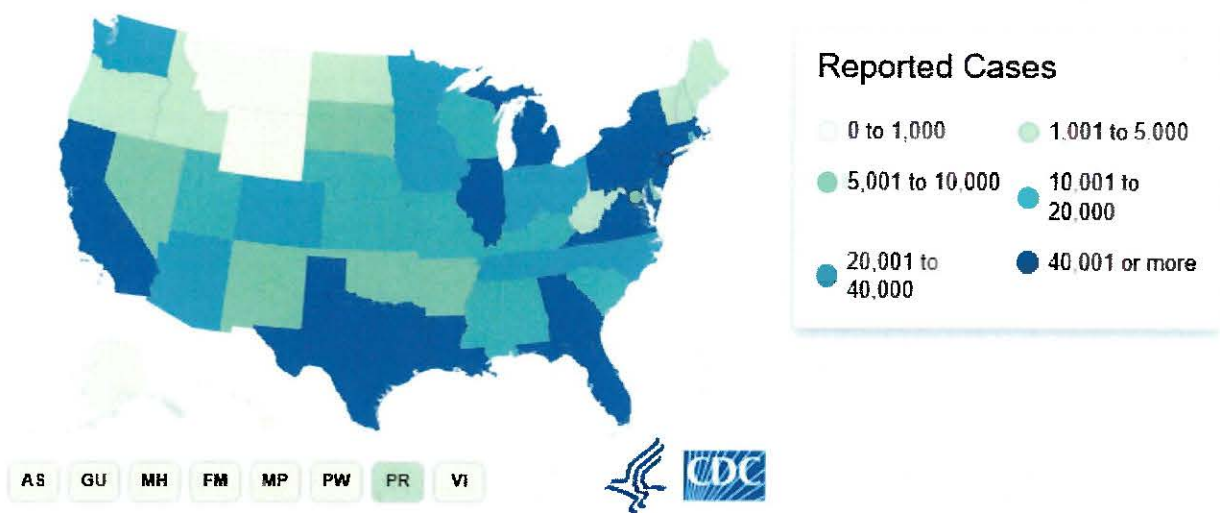**Chart 8: COVID-19 Cases by Jurisdiction as of June 5, 2020**

Chart 8, above, highlights areas of the country with higher COVID-19 activity. As of June 5, 2020, 34 jurisdictions reported more than 10,000 cases of COVID-19. Twelve jurisdictions reported more than 40,000 cases. These jurisdictions include: California, Texas, Florida, Virginia, Illinois, Michigan, New York, Pennsylvania, Connecticut, Maryland, Massachusetts, and New Jersey. Just 8 jurisdictions, Hawaii, Alaska, Montana, Wyoming, Vermont, Guam, Northern Marianas Islands, and the U.S. Virgin Islands reported fewer than 1,000 cases.

More information about cases by jurisdiction is available online here:
https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html
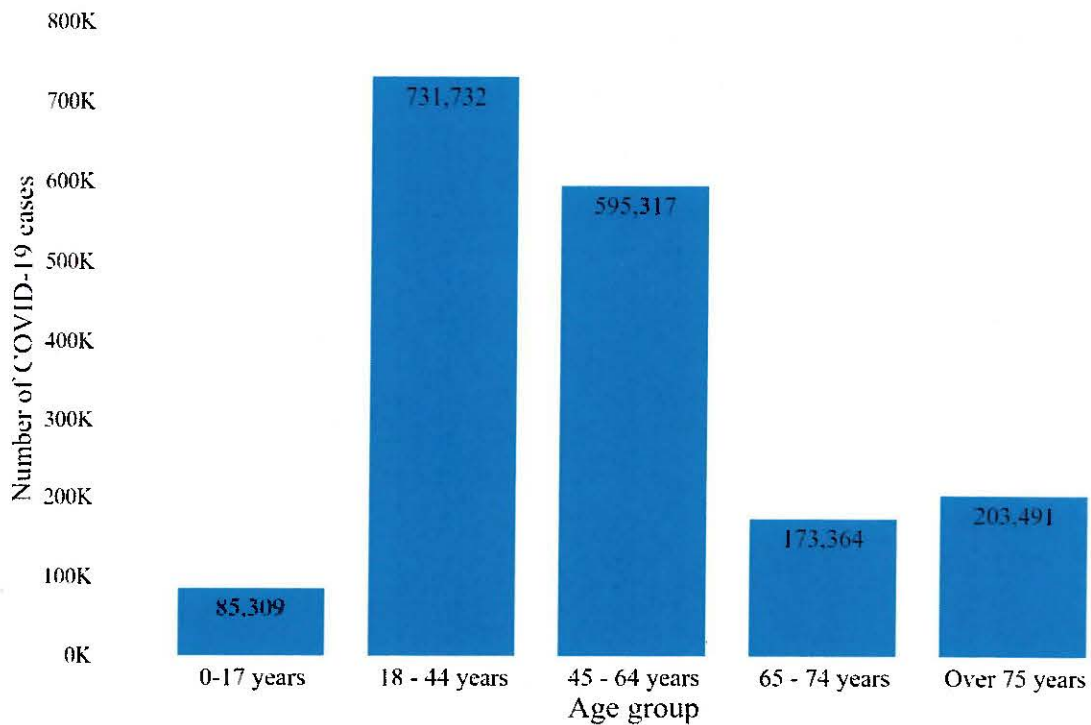
Chart 9: Number of COVID-19 Cases by Age

Chart 9 shows the age distribution of people with COVID-19. Data were collected from 1,792,137 people, and age was available for 1,789,213 (99.8%) people as of June 14. This chart is updated daily and can be found at: https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/cases-in-us.html

Coronavirus Testing

As of June 4, 2020 CDC received reports for 19,811, 243 diagnostic tests from public health departments, hospitals, and commercial laboratories. Of these, 2,265,135 (11%) were positive for COVID-19. Diagnostic test data are compiled from a number of sources, not all tests are directly reported to CDC, and there is currently no breakdown of race/ethnicity for testing numbers. However, the aforementioned CARES Act requires every laboratory that performs or analyzes a test that is intended to detect SARS-CoV-2 or diagnose a possible case of COVID-19 to collect and report required data elements, including patient race and patient ethnicity, for transmission to CDC. It is also important to note that the number of positive tests in a state is not equal to the number of cases, as one person may be tested more than once. Public health laboratories in all 50 states, Washington DC, Guam, Puerto Rico, and United States Virgin Islands are now testing for SARS-CoV-2. Additional information about testing is available online at:
https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/testing-in-us.html

Looking Forward and Conclusion

To accelerate progress toward reducing COVID-19 disparities and achieve health equity, CDC established the position of Chief Health Equity Officer in the COVID-19 Incident Management Structure. This is the first time in CDC history that a senior leader was placed on the incident management leadership team with the sole focus of ensuring an all-of-response approach to identifying and addressing health disparities. The health equity team is working to ensure that useful data are available and that high impact interventions – that are culturally responsive and tailored to address the unique circumstances of groups at increased risk for COVID-19 –are implemented by states and localities, as appropriate.

CDC is committed to making data available to the public as we receive it to the maximum extent without compromising data quality or personally identifiable information; and to examining COVID-19 data on a more granular level, and we will continue working with states so that they collect and report the data needed to inform public health decisions, especially as they pertain to different segments of the population. But CDC is not waiting for 100% reporting and final analysis to act on the information that helps us make important resource decisions. CDC continues to lead discussions to identify and assess the needs of jurisdictions in order to enhance contact tracing plans and capabilities, emphasizing the need to engage and support populations that have been put at increased risk for COVID-19 and include focused efforts for long-term care facilities, Federally Qualified Health Centers, and Tribal Nations, among others. CDC is also working with Health Resources and Services Administration (HRSA) within HHS and the Federally Qualified Health Centers to develop and implement a strategy to increase testing in these clinics and to provide the clinics with the tools and resources to diagnose, treat and monitor COVID-19 illness in the populations they serve.

Over the coming weeks and months, CDC looks forward to sharing with Congress its continued progress toward improvements in its data collection systems for COVID-19 as well as our broader data modernization efforts especially as laboratories begin reporting required race and ethnicity data no later than August 1, 2020.

Appendix A – Lab Test Data Elements

The Coronavirus Aid, Relief, and Economic Security (CARES) Act laboratory reporting requirements for SARS-CoV-2 laboratory tests include the following data elements:

- o Test ordered – use harmonized LOINC codes provided by CDC
- o Device Identifier
- o Test result – use appropriate LOINC and SNOMED codes, as defined by the Laboratory In Vitro Diagnostics (LIVD) Test Code Mapping for SARS-CoV-2 Tests provided by CDC
- o Test Result date (date format)
- o Accession #/Specimen ID
- o Patient age
- o Patient race
- o Patient ethnicity
- o Patient sex
- o Patient residence zip code
- o Patient residence county
- o Ordering provider name and National Provider Identifier (NPI) (as applicable)
- o Ordering provider zip
- o Performing facility name and/or Clinical Laboratory Improvement Amendments (CLIA) number, if known
- o Performing facility zip code
- o Specimen Source - use appropriate LOINC, SNOMED-CT, or SPM4 codes, or equivalently detailed alternative codes
- o Date test ordered (date format)
- o Date specimen collected (date format)

Appendix B – Background on COVID Surveillance System

Jurisdictions electronically report information on individual cases of COVID-19 to CDC using a standardized set of data elements (case report form). For this response, states supply case report form data through direct data entry, by submission of csv files, or through the National Notifiable Diseases Surveillance System. Data from the three feeds (National Notifiable Diseases Surveillance System, direct data entry, and case surveillance submission) are pulled together for each case submitted to CDC and used for analysis.

CDC relies on timely public health surveillance data to guide public health action and inform the nationwide response to COVID-19. In order to get both timely and detailed data on cases in the U.S., CDC case surveillance uses two different data sources. The first data source is an aggregate count, where each jurisdiction confirms the total number of reported cases and deaths each day. These aggregate counts provide the most up to date numbers but contain no information on the cases and deaths besides the total number. The second data source is line-listed data on each case, including whether or not the case was fatal. These data contain details on the patients, including age and race/ethnicity, but are time consuming to collect and so often lag behind the aggregate counts. As a result, we use the aggregate counts to report the total numbers on our website, and the line-listed data to report the demographic data on our website

The CDC COVIDView report provides a weekly surveillance summary and analysis of U.S. COVID-19 activity. CDC also maintains webpages with data on nationwide COVID-19 testing, number and rates of cases, hospitalizations, and deaths as a result of COVID-19 that are updated regularly. Of the data CDC collects, using the line-listed data, racial and ethnic data can be desegregated for cases, hospitalizations and mortality. This report delves further into each of those categories.

CDC's is working closely with the HHS Chief Information Office and the Chief Information Office staff to enable multiple data users to gain access to CDC data sets via the HHS Protect platform. An array of CDC surveillance data are included in HHS Protect: COVID-19 cases reported to state, territorial, and local public health agencies; syndromic surveillance data that provide early indicators of disease trends; laboratory test data that cover the volume and results of testing; hospital impact and capacity data; and mortality data. The CDC and HHS CIO teams have collaborated on processes for assuring that data users gain secure and expedited access to CDC data sets. As the two teams extend access to these data sets to additional users, additional efforts are underway to support and help guide use of the CDC provisioned data for analyses and actions at all levels of the COVID-19 response.

Appendix C – Limitations of Disaggregated Data

CDC has received several requests to disaggregate data among Asian American Pacific Islander groups to allow for differentiation among specific race/ethnicities. While CDC supports and understands the need for such data, there are several factors that impact our ability to disaggregate at this level.

CDC relies on existing working relationships with health departments, healthcare providers, and laboratories to conduct public health surveillance for coronavirus disease (COVID-19) cases. Because this national reporting system draws on multiple information sources, has complex process steps, and is subject to limitations on the types of information available for case reporting, the quality and completeness of case data CDC receives are sometimes compromised.

U.S. surveillance for COVID-19 cases is routinely conducted using a case report form that is standardized nationally to capture the same demographic, clinical, and risk factor information consistently via myriad reporting sources. The initial step in case reporting calls for laboratories and healthcare providers to submit case information to their local or state health departments in accordance with jurisdictional requirements. Although case reporting is required, it is incomplete in many if not most jurisdictions, both in terms of the numbers of cases reported and in the data reported for each case.

Case reporting depends on individuals at the state, territorial, and local levels who have multiple competing demands. Even in non-crisis times, limited public health resources relying on antiquated public health information systems are available to fully capture all data elements. This is a well-documented challenge. This problem is compounded during large-scale public health emergencies, such as the COVID-19 pandemic, when healthcare and public health professionals are focused on providing an array of emergency response services, decreasing available time required to complete case reports.

Furthermore, no single reporting source, whether a healthcare provider or laboratory, is likely to have access to all demographic, clinical, laboratory test results, and risk factor information for a case report form. For example, laboratory data systems typically omit basic demographic information (e.g., race and ethnicity) because the focus of laboratory recordkeeping is on specimens and test results. Retrieval of missing demographic data in cases reported by laboratories calls for data extraction from other systems, a challenging process for public health departments. Other factors may also contribute to case data incompleteness, such as coding defaults that record fatal outcomes as deaths only when the individuals are known to have died; they persist as missing or unknown coded values in the absence of definitive vital status information. Since death is a time-dependent outcome variable, vital status may not be known at the time the report is prepared; the patient may still be hospitalized without a final disposition or may be discharged many days after a case report has been submitted.

Appendix D – Case Report Form, Exposure Options

The exposure variable is created from all the exposure options reported on the Case Report Form. If a state responds either "Yes" or "No" to any of the exposure options, the variable is considered complete.

Exposure Information

In the **14 days prior to illness onset**, did the patient have any of the following exposures (check all that apply):

- [ ] Domestic travel (outside state of normal residence). Specify state(s): _____
- [ ] International travel. Specify country(s): _____
- [ ] Cruise ship or vessel travel as passenger or crew member. Specify name of ship: _____
- [ ] Workplace
  If yes, is the workplace critical infrastructure (e.g., healthcare setting, grocery store)?
  - [ ] Yes, specify workplace setting: _____ [ ] No [ ] Unknown
- [ ] Airport/airplane
- [ ] Adult congregate living facility (nursing, assisted living, or long-term care facility)
- [ ] School/university/childcare center
- [ ] Correctional facility
- [ ] Community event/mass gathering
- [ ] Animal with confirmed or suspected COVID-19. Specify animal: _____
- [ ] Other exposures, specify: _____
- [ ] Unknown exposures in the 14 days prior to illness onset

- [ ] Contact with a known COVID-19 case (probable or confirmed)

If the patient had contact with a known COVID-19 case:
What type of contact?
- [ ] Household contact
- [ ] Community-associated contact
- [ ] Healthcare-associated contact (patient, visitor, or healthcare worker)

Was this person a U.S. case?
- [ ] Yes, nCoV ID(s) _____, _____, _____
- [ ] No, this person was an international case and contact occurred abroad
- [ ] Unknown if U.S. or international case

Is this case part of an outbreak?
- [ ] Yes, specify outbreak name: _____ [ ] No [ ] Unknown