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## Tracking COVID-19 data reporting and analysis in the United States: Findings from December, August, and May 2020

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**Tracking COVID-19 Data Reporting and Analysis in the United States: Findings from December, August, and May 2020.**

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## SUMMARY

### **Background:**

Throughout the course of the pandemic, Population Council researchers have been tracking how COVID-19 data is reported and analyzed using a comprehensive analysis of 62 COVID-19 data sources from the Centers for Disease Control and Prevention (CDC) and health departments across 50 states and the District of Columbia (DC), and ten cities. We assessed data completeness for COVID-19 testing and four outcomes (cases, hospitalizations, recoveries, and deaths), and examined disaggregation of COVID-19 testing and outcomes by a core set of demographic indicators, including age, race/ethnicity, sex/gender, geography, and underlying health conditions. This analysis also investigated how social and community level data were reported and analyzed, variations in data reporting, and changes over the course of the pandemic by comparing data across three time points: [May](#), [August](#) and [December, 2020](#).

*Note: This report analyzes data collected during December 7-18, 2020 and may not reflect current reporting status. Access our full [methodology](#).*

### **Objectives:**

We conduct a review of COVID-19 data reporting in the United States and examine how this reporting has changed over time with the following objectives:

1. To assess the completeness of official COVID-19 data reporting and whether data are disaggregated by key demographic indicators (age, sex, race/ethnicity, geography, and underlying health conditions) in accordance to the CDC data [reporting guidelines](#).
2. To assess how COVID-19 testing and outcomes (cases, hospitalizations, recoveries and deaths) and testing data are analyzed by demographic characteristics, as well as social, occupational, and community level indicators (economic status, healthcare worker status, place of stay, exposure, and gender)
1. To describe how the patterns of COVID-19 data reporting change over time at the national, state, and city levels.

### **Key Findings:**

1. **Data Completeness:** Across the 50 states and District of Columbia (DC), the overall data completeness score has improved slightly since May, with larger improvement between [May](#) to [August](#) compared August to December:
  - State average overall data completeness score (out of 30): May: 14.3 [range: 6-21]; August: 16.3 [range: 11-24]; December: 17.4 [range: 12-25]
  - City average overall data completeness score (out of 30): May: 10.7 [range: 0-18]; August: 12.1 [range: 0-18]; December: 12.8 [range: 0-20]
  - Data visualization for overall completeness can be found [here](#)
  
2. **Disaggregation by Key Demographics:** No significant improvements in disaggregation of main indicators (age, sex, race/ethnicity, geography, underlying conditions) were noted between August and December:
  - Demographic indicators were most commonly disaggregated for cases and deaths, followed by hospitalizations. Indicators are least commonly disaggregated for recoveries.
    - Between August and December, data disaggregation improved most significantly for hospitalizations.
  - Overall, outcomes and testing are most commonly disaggregated by geography, followed by age, race/ethnicity, and sex. COVID-19 testing and outcomes and testing were disaggregated by underlying conditions far less frequently.
    - Between August and December, disaggregation of outcomes/testing by race/ethnicity improved most significantly.
  - Overall, Iowa has the most disaggregation of demographic indicators, while Alaska and Kentucky have the least disaggregation of demographic indicators.
  - Between August and December, New Mexico improved their reporting the most across states, and Seattle and New York City improved their reporting the most across cities.
  - Data visualization for demographic indicators can be found [here](#)
  
3. **Social, occupational, and Community Level Data:** There were noticeable improvements in reporting of social, occupational, and community level indicators between August and December, but they remain severely inadequate. Reporting these indicators was most common for cases and deaths and was far less common for testing, hospitalizations, and recoveries.
  - Compared to August, 1 additional source reported on economic status, 11 additional sources reported on healthcare worker status, 4 additional sources reported on place of stay, 16 additional sources reported on exposure, and 1 additional source reported on gender in December.
  - Data visualization on social, occupational, and community level indicators can be found [here](#)
  
4. **Data Standardization:** Data reporting remains inconsistent and unstandardized across US states and cities. Definitions of outcomes and indicators, as well as methodologies for data collection,

are varied across sources. Furthermore, it has been difficult to identify all data points, as many states and cities report COVID-19 data on multiple webpages, reports, and dashboards.

5. **Intersectionality Analysis:** We noted a slight decrease in overall reporting of intersectionality analysis of data since August – the investigation of how multiple social and demographic indicators interact to affect COVID-19 outcomes. This decrease was attributed to 8 sources no longer reporting intersectionality analysis for cases and 7 sources no longer reporting for death.
  - Data visualizations on intersectionality can be found [here](#) and [here](#)
  
6. **Health Equity Data and Task Forces:** We found that 26 states and 5 cities had an established health equity task force, working group, response team, or departmental body to address health inequities and disparities related to COVID-19, which improved from our findings in August of 15 states and 4 cities
  - Average overall data completeness was slightly higher across the states and cities with established health equity task forces; Average overall data completeness score for the 26 states identified in December is 17.8 [range: 13-23]; Average overall data completeness for the 5 cities identified in December is 15.2 [range: 5-20]
  - Only 13 of the sources with task forces mentioned data collection, and of these, only 7 mentioned specific collection metrics; the majority of guidance on data collection was focused only on race/ethnicity data.
  - Data on gender (beyond male/female), poverty level, and ethnicity continues to be neglected across states and cities.
  - Data visualizations for health equity data can be found [here](#)

**Key Takeaways:**

- One year into the pandemic, the US has not made any substantial improvement in its COVID-19 data reporting and analyses at the national, state, and city levels. The lack of significant improvements in data reporting suggest that health officials and governments are not investing and using critical socio-demographic data supported pandemic response.
- Though improvements in reporting of social, occupational, and community level indicators has improved slightly, they remain severely inadequate. The dramatic differences between each source’s definition of these indicators makes it difficult to determine any conclusive trends on who and where COVID-19 is affecting in order for health officials to conduct robust test, trace, and isolate response.
- While hospitals in the US are facing a crisis-level shortage of beds and staff, data on hospitalizations have consistently been underreported. Even with the recent release of hospital capacity data at a national and local level, simple sociodemographic information on hospitalization cases is still lacking. The U.S. Department of Health and Human Services

(HHS) hospital capacity data does not include demographic indicators making it difficult to get a full picture of who within a community is affected.

- While COVID-19 are infecting and killing Black and brown communities at the higher rates, only half of the states and cities have made progress towards collecting data related to equity. The lack of intersectionality analysis of COVID-19 and the negligence gender, poverty, and ethnicity hamper health officials from understanding the intersecting risks of COVID-19.
- Reporting remains wildly inconsistent across states and cities; the lack of standardized reporting along with new hospital capacity data and the increasing availability of vaccination data, calls for a more integrated data system to adequately track and respond to this pandemic and future outbreaks.

### Overall completeness

[https://public.tableau.com/views/round3overallcompleteness/Story1?:language=en&:display\\_count=y&:origin=viz\\_share\\_link](https://public.tableau.com/views/round3overallcompleteness/Story1?:language=en&:display_count=y&:origin=viz_share_link)

To determine overall data completeness, we looked for whether each data source reported on testing and four outcomes (cases, hospitalizations, recoveries, deaths) and assessed if each outcome/testing was disaggregated by five main indicators (age, sex, race/ethnicity, geography, underlying conditions). We gave each source one point for each outcome/testing it reported, and an additional point for each demographic indicator included for each outcome. Each source could receive up to 30 points:

Testing (1 point)	Cases (1 point)	Hospitalizations (1 point)	Recoveries (1 point)	Deaths (1 point)
Age (1 point)				
Sex (1 point)				
Race/ethnicity (1 point)				
Geography (1 point)				
Underlying conditions (1 point)				

Overall, states + DC scored an average of 17.4 out of 30 points [range: 12 - 25]. Iowa had the most complete reporting, reporting on 25 of the 30 indicators and outcomes. Alaska and Kentucky had the least complete reporting, reporting on 12 of the 20 indicators and outcomes.

The ten cities had an average of 12.8 out of 30 points [range: 0 - 20]. New York City and Seattle had the most complete reporting, reporting on 20 of the 30 indicators and outcomes. Miami had the most incomplete data, as the Miami health department does not currently publish any COVID-19 data.

Across the 50 states and DC, average overall data completeness increased from 16.3 to 17.4 between August and December. 26 states increased in overall completeness since August, and 5 states decreased in overall completeness. Across the ten cities, average overall completeness increased from 12.1 to 12.8 between August and December. 4 cities increased in overall completeness since August, and 1 city decreased in overall completeness. Reporting remains most complete for cases and deaths and is less complete for testing, hospitalizations, and recoveries.

## Disaggregation of outcomes/testing by “main socio-demographic indicators”

[https://public.tableau.com/views/round3stateindicators/Story1?:language=en&:display\\_count=y&:origin=viz\\_share\\_link](https://public.tableau.com/views/round3stateindicators/Story1?:language=en&:display_count=y&:origin=viz_share_link)

Overall, there were small improvements in disaggregation of main indicators across outcomes/testing.

### Testing

*States:* In December, all 50 states and DC reported on testing. 16 states disaggregated testing data by age, 9 by sex, 9 by race/ethnicity, 41 and DC by geography, and 1 by underlying conditions.

- In August, all 50 states and DC reported on testing but only 9 states disaggregated testing data by age, 6 by sex, 7 by race/ethnicity, 39 by geography, and 0 by underlying conditions.

*Cities:* In December, 8 of the 10 cities reported on testing (Chicago, Detroit, Houston, Los Angeles, New Orleans, New York City, Philadelphia, Seattle). 5 cities (Chicago, Los Angeles, New York City, Philadelphia, Seattle) disaggregated testing data by age, 5 (Chicago, Los Angeles, New York City, Philadelphia, Seattle) by sex, 4 (Chicago, Los Angeles, Philadelphia, Seattle) by race/ethnicity, 5 (Chicago, Los Angeles, New York City, Philadelphia, Seattle) by geography, and 0 by underlying conditions.

- In August, 8 of the 10 cities reported on testing. 3 cities reported on age, sex, race/ethnicity, and 4 reported on geography.

### Cases

*States:* In December, all 50 states and DC reported on cases. 49 states and DC disaggregated case data by age, 49 and DC by sex, 49 and DC by race/ethnicity, 50 and DC by geography, and 10 by underlying conditions.

- In August, one less state disaggregated cases by race/ethnicity, but otherwise the reporting in August and December was identical.

*Cities:* In December, all cities, except Miami, reported on cases. 7 cities (Chicago, Detroit, Houston, Los Angeles, New York City, Philadelphia, Seattle) disaggregated case data by age, 7 (Chicago, Detroit, Houston, Los Angeles, New York City, Philadelphia, Seattle) by sex, 8 (Boston, Chicago, Detroit, Houston, Los Angeles, New York City, Philadelphia, Seattle) by race/ethnicity, 7 (Chicago, Detroit, Houston, Los Angeles, New York City, Philadelphia, Seattle) by geography, and 0 by underlying conditions.

- There was no change in reporting of cases across the ten cities between August and December.

### Hospitalizations

*States:* In December, 49 states and DC reported on hospitalizations. KY **did not** report on hospitalizations. 29 states disaggregated hospitalization data by age, 23 by sex, 25 by race/ethnicity, 38 by geography, and 2 by underlying conditions.

- In August, 47 states and DC reported on hospitalizations. 25 disaggregated by age, 14 by sex, 18 by race/ethnicity, 25 by geography, and 3 by underlying conditions.

*Cities:* In December, 5 of the 10 cities reported on hospitalizations (Los Angeles, New Orleans, New York City, Philadelphia, Seattle). 4 cities (Los Angeles, New York City, Philadelphia, Seattle) disaggregated by age, 3 (New York City, Philadelphia, Seattle) by sex, 4 (Los Angeles, New York City, Philadelphia, Seattle) by race/ethnicity, 2 (New York City, Seattle) by geography, and 0 by underlying conditions.

- In August, the same 5 cities reported on hospitalizations. 3 disaggregated by age, sex, and race/ethnicity; 4 disaggregated by geography.

### Recoveries

*States:* In December, 34 states and DC reported on recoveries. AK, CA, CO, DE, FL, GA, HI, KS, MA, MN, NV, RI, VA, and WA **did not** report on recoveries. 8 states disaggregated recovery data by age, 6 by sex, 7 by race/ethnicity, 13 by geography, and 1 by underlying conditions.

- In August, 3 additional states reported on recoveries. 8 states disaggregated by age, 6 by sex, 5 by race/ethnicity, 18 by geography, and 1 by underlying conditions. Alaska, one of the states that stopped reporting on recoveries, noted that they stopped reporting on recoveries in November “to prevent inaccurate or outdated information from being reported”.

*Cities:* In December, 3 cities reported recoveries (Boston, Chicago, Houston). Houston disaggregated recovery data by age, sex, race/ethnicity, and geography. No cities disaggregated recovery data by underlying conditions.

- There was no change in reporting of recoveries in cities between August and December.

### Deaths

*States:* In December, all 50 states and DC reported on deaths. 47 states and DC disaggregated death data by age, 44 and DC by sex, 47 and DC by race/ethnicity, 47 and DC by geography, and 17 by underlying conditions.

- In August, 47 states and DC disaggregated by age, 43 states and DC by sex, 44 states and DC by race/ethnicity, 48 states and DC by geography, and 15 states disaggregated by underlying conditions.

*Cities:* In December, all cities, except Miami, report on deaths. 7 cities (Chicago, Detroit, Houston, Los Angeles, New York City, Philadelphia, Seattle) disaggregated death data by age, 7 (Chicago, Detroit, Houston, Los Angeles, New York City, Philadelphia, Seattle) by sex, 8 (Boston, Chicago, Detroit, Houston, Los Angeles, New York City, Philadelphia, Seattle) by race/ethnicity, 6 (Chicago, Detroit, Houston, Los Angeles, New York City, Seattle) by geography, and 2 (Houston, New York City) by underlying conditions.

- In August, all cities except Miami reported on death but only 6 cities disaggregated by age and sex.

**Social, occupational, and community level indicators**

[https://public.tableau.com/shared/4ZWC7FQR2?:display\\_count=y&:origin=viz\\_share\\_link](https://public.tableau.com/shared/4ZWC7FQR2?:display_count=y&:origin=viz_share_link)

Social, occupational, and community level indicators include economic status, healthcare worker status, place of stay, potential exposure, and gender. We started tracking data on economic status and gender in May because of their relevance in existing health inequities. We started tracking data on healthcare worker status, place of stay, and potential exposure in August in response to the [CDC Case Report Form](#), which was developed to standardize reporting of COVID-19 data.

Overall, there was an improvement in reporting of social, occupational, and community level indicators, though reporting of these indicators remains overwhelmingly inconsistent across states.

- Example: Alaska reports on potential exposures by reporting three levels of potential acquisition type: travel, community, and secondary. Conversely, Delaware reports on potential exposures by reporting data on in-person school, as well as venues visited, with 21 different categories of venues for potential exposure. Though we consider both of these states to report on exposure, we recognize that the definition of ‘exposure’ is far from standardized across states and cities.

Improvements in reporting of these indicators are depicted in the table below. Detailed information on how each state reports on the social, occupational, and community level indicators can be found in Tables 1-4 at the end of this report.

Indicator	August	December
Economic Status	0 states, 2 cities	1 state, 2 cities

Healthcare Worker Status	16 states, 0 cities	25 states, 2 cities
Place of Stay	38 states, DC, 5 cities	41 states, DC, 6 cities
Exposure	9 states, 0 cities	24 states, DC, 0 cities
Gender	0 states, 0 cities	1 state, 0 cities

These indicators are more commonly reported for cases and deaths and are far less commonly reported for testing, hospitalizations, and recoveries.

*Note: Inconsistencies in reporting of social, occupational, and community level indicators across states and cities complicated efforts to extract data on these indicators from each source.*

Economic status

In December, one state (NM) and two cities (New York City, Los Angeles) disaggregated *at least one* outcome/testing by economic status. In August, only New York City and Los Angeles reported economic status.

New York City and Los Angeles report economic status data for **testing**, NM, New York City, and Los Angeles report economic status data for **cases**, NM and New York City report economic status data for **hospitalizations**, no sources report economic status data for **recoveries**, and NM, New York City, and Los Angeles report economic status data for **deaths**.

Additional information on reporting of economic status is in Table 1.

Healthcare worker status

In December, 25 states (AL, AZ, AR, CA, CT, GA, ID, IO, MA, MN, NH, NY, OH, OK, OR, PA, RI, SC, TN, UT, VT, VA, WA, WV, WI) and two cities (Chicago, Los Angeles) disaggregated *at least one* outcome/testing by healthcare worker status. In August, only 16 states disaggregated *at least one* outcome/testing by healthcare worker status.

Los Angeles reports healthcare worker (HCW) data for **testing**, all 27 sources report HCW data for **cases**, 5 states (MN, NH, OH, UT, VT) report HCW data for **hospitalizations**, WV reports HCW data for **recoveries**, and 7 states (CA, GA, NH, PA, SC, UT, WV) and Los Angeles report HCW data for **deaths**.

Healthcare worker status was included in this analysis for both inclusion of overall healthcare worker data, and healthcare worker data specifically for skilled nursing facility staff. Additional information on reporting of healthcare workers status is in Table 2.

#### Place of stay

41 states (AL, AZ, AR, CA, CO, CT, FL, IL, IN, IO, KS, KY, LA, MD, MA, MI, MN, MS, MT, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI), DC, and 6 cities (Chicago, Detroit, Los Angeles, New York City, Philadelphia, Seattle) disaggregated *at least one* outcome/testing by place of stay. In August, data on place of stay was reported for 38 states, DC, and 5 cities.

5 states (IN, IO, KY, LA, OH), DC, and two cities (Los Angeles and Seattle) report place of stay data for **testing**, 35 states (AL, AZ, AR, CA, FL, IN, IO, KS, KY, LA, MD, MA, MI, MN, MS, MT, NV, NH, NY, NC, ND, OH, OK, OR, PA, RI, SC, TN, TX, UT, VT, VA, WA, WV, WI), DC, and five cities (Chicago, Detroit, Los Angeles, Philadelphia, Seattle) report place of stay data for **cases**, 4 states (KS, OH, SD, UT) and Seattle report place of stay data for **hospitalizations**, 6 states (KY, LA, NV, OH, VA, WV) and DC report place of stay data for **recoveries**, and 27 states (AR, CA, FL, IN, IO, KS, KY, LA, MD, MN, MS, MN, NH, NM, ND, OH, OR, PA, RI, SC, TN, UT, VT, VA, WA, WV, WI), DC, and five cities (Detroit, Los Angeles, New York City, Philadelphia, Seattle) report place of stay data for **deaths**.

Additional information on reporting of place of stay is in Table 3.

#### Exposure

24 states (AK, AZ, AR, DE, FL, HI, KS, MD, MA, MI, MN, MT, NH, NM, NC, ND, OR, TN, UT, VT, VA, WA, WI, WY), DC, and Chicago disaggregate *at least one* outcome/testing by exposure. Reporting of exposures increased from only 9 states reporting on exposure in August.

DC reports exposure data for **testing**, all 25 sources report exposure data for **cases**, 4 states (KS, MN, NH, UT) report exposure data for **hospitalizations**, no sources report exposure data for **recoveries**, and OR reports exposure data for **deaths**.

Additional information on reporting of exposure is in Table 4.

#### Gender

In August, we found that six states and cities (Pennsylvania, California, New Jersey, Los Angeles, Nevada, and New York City) claimed to have started collecting data on gender identity and sexual orientation. Despite these claims, we found that no sources reported this data<sup>1</sup>.

In December, we found Rhode Island to be the only state to disaggregate *at least one* outcome/testing by gender.

Rhode Island reports the following for cases and hospitalizations: sex assigned at birth (male, female, other), LGBTQ+ (yes/no), gender identity (cisgender woman; cisgender man; gender non-conforming, gender non-binary, or transgender; other), and sexual orientation (asexual; bisexual; lesbian or gay; queer; straight; other).

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<sup>1</sup> Rhode Island states that they started collecting data on gender identity and sexual orientation on June 1, 2020.

## Intersectionality

### "Two-Indicator" Combinations by Outcome

#### Number of sources reported that reported intersectionality for each outcome (May to December)

34 of the 62 data sources (a 38% increase from May and a 4% decrease from August) examined the intersection of more than one key demographic indicator by an outcome. Data sources reporting intersectionality include those from 30 states (a 47% increase from May and a 6% decrease from August), District of Columbia, and four cities (25% reporting).

31 sources (a decrease of 9% from August with 8 sources no longer reporting) shared intersectional analysis for cases and 21 (a decrease of 13% from August with 7 sources no longer reporting) for deaths, while only 8 (13% increase from August) for testing, 13 (23% increase from August) for hospitalizations, and 3 (no change from August) for recoveries. CDC, Alabama, Connecticut, Kansas, Louisiana, Maryland, Montana, Ohio, and Wyoming were sources that no longer report intersectionality analyses.

- The CDC, Alabama, Louisiana, Maryland, Montana, Ohio, Wisconsin, and Wyoming no longer report intersectionality of cases.
- The CDC, Alabama, Illinois, Louisiana, Maryland, Ohio, and Los Angeles no longer report intersectionality of deaths.
- Florida, Illinois, Iowa, Washington, and Los Angeles were sources that showed a reduction in intersectionality analyses reporting since August.
- Arizona, Delaware, Nevada, New Hampshire, Oklahoma, South Carolina, and Tennessee were sources that began reporting intersectional analyses since August.
- Minnesota, New Jersey, New Mexico, North Carolina, Rhode Island, and Philadelphia were sources that showed progress (marked by an increase in reporting at least one additional indicator) in reporting intersectional analyses.

**“Age + geography” continues to be the most common combination across 36 data sources.**

“Sex + geography” overtook “race/ethnicity + geography” as the second most common combination since our August analysis. Overall, sources reported a greater diversity of new combinations since August. Notable, hcw + sex, hcw + race, occupation + race, occupation + income, and condition + race.

## Health Equity Task Forces

<https://public.tableau.com/profile/saleh.abbas#!/vizhome/shared/P2PNTF5WG>

In December 2020, we found that 26 states and 5 cities had an established health equity task force, working group, response team, or departmental body to address health inequities and disparities. In August, we found that 15 states and 4 cities had a similar task force.

Average overall completeness was slightly higher across the states and cities with established health equity task forces. Average overall completeness for the 26 states identified in December is 17.77 [range: 13-23]. Average overall completeness for the 5 cities identified in December is 15.2 [range: 5-20].

Of the 26 states and 5 cities with a health equity task force in December, only 16 specifically mentioned improved data collection as a means to address inequity, and only 7 give specific data collection metrics. Guidance on data collection was almost exclusively about data on **race and ethnicity**, with Louisiana and New Jersey being the only states mentioning collection of demographic data other than race/ethnicity data. Lack of specificity on data collection guidelines made it difficult to determine if sources met these guidelines. Even when an effort to collect data on race/ethnicity was stated clearly, details such as the outcome(s) for which this data should be collected was lacking.

Across the 26 states and 5 cities with a health equity task force:

- All report race/ethnicity for cases
- All except WV report race/ethnicity for deaths
- IL, IN, TN, UT, VT, Philadelphia, and Chicago report race/ethnicity for testing
- CO, IN, MA, MN, NH, NJ, NM, NC, OH, OR, RI, TN, UT, VT, VA, WA, WI, New York City, and Philadelphia report race/ethnicity for hospitalizations
- NJ, TN, and Houston report race/ethnicity for recoveries

Louisiana had the most detailed guidelines on data collection, stating that they would collect: “COVID-19 data based on age, gender, and race with geospatial analysis of mortality; Obtain COVID 19 data to include deaths by age/race/zip codes; hospitalizations by age and race; cases and deaths in nursing homes and prisons by age and race; # of people tested by age and race; obesity data; cross tabulation of data with co- morbidities; Various nationalities, including Latino community numbers, will be included.

- We did not find disaggregation of testing data by age or by race/ethnicity
- We did not find data on cases and deaths for prison populations
- Obesity data only available for deaths
- We did not find information on various nationalities; only two ethnicity categories: Latino/Hispanic and non-Latino/Hispanic

New Jersey is the only other state with guidelines that extend beyond collection of race/ethnicity data, requiring reporting of age, sex, and race/ethnicity of cases, deaths, and those who tried to obtain testing but were turned away. Demographic data was available for cases and deaths, but we did not find data on individuals who sought testing and were turned away.

We also included COVID-19 data collection bills enacted by U.S. municipalities (two states were identified). Although this reflects an improvement from August, when 19 states and cities were captured, Wisconsin, Arkansas, California, Colorado, Ohio are the only four states that have at least one mechanism launched between round two and round three<sup>2</sup>.

Out of the 31 states and cities, California, Colorado, Massachusetts, New Jersey, Ohio, City of Philadelphia have more than one mechanism to address health equity. Across the U.S., health equity task force is predominantly initiated by the health department and the governor/mayor. In some cases, the racial/minority-focused government agency or the state's Attorney General could also introduce or lead an initiative. Noteworthy, as this round of analysis began in December 2020, some jurisdictions have unveiled their vaccine plans, which oftentimes cover the equity aspect as well. For example, California created a Health Equity Technical Assistance Team to ensure equal access and implementation of COVID-19 vaccine in the community.

As we have seen during the pandemic, data-related work requires cross-sectional collaboration and community engagement. Conversely, lacking high-quality data would hinder the realization of the objectives of task forces. We dug into each policy arrangement to check whether it incorporates data collection, analysis, monitoring, or reporting as key components. Among all of the entries, seven of them did not mention data or include relevant terms in public documents. We summarized these findings in Table 5 below.<sup>3</sup>

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<sup>2</sup> While conducting round 3 analysis, we found that some qualified "entries" were missed in round 2.

<sup>3</sup> We excluded health equity offices or similar initiatives launched prior to COVID, even though some of them have developed guidelines, tools, or published policy recommendations during the pandemic.

**Table 1. Reporting of economic status**

Source	Economic status definition	Outcomes
New Mexico	<a href="#">Census Tract Poverty Group</a>	Cases, hospitalizations, case fatality rate
New York City	<a href="#">Neighborhood poverty</a>	Testing, cases, hospitalizations, deaths
Los Angeles	<a href="#">Area poverty</a>	Testing, cases, deaths

**Table 2. Reporting of healthcare worker status**

Source	Outcome(s)	Source	Outcome(s)
Alabama	Cases	Oregon	Cases
Arizona	Cases	Pennsylvania	Cases, deaths
Arkansas	Cases	Rhode Island	Cases
California	Cases, deaths	South Carolina	Cases
Connecticut	Cases	Tennessee	Cases
Georgia	Cases, deaths	Utah	Cases
Idaho	Cases	Vermont	Cases, hospitalizations
Iowa	Cases, recoveries, deaths	Virginia	Cases
Massachusetts	Cases	Washington	Cases
Minnesota	Cases, hospitalizations	West Virginia	Cases, recoveries, deaths
New Hampshire	Cases, hospitalizations, deaths	Wisconsin	Cases
New York	Cases	Chicago	Cases
Ohio	Cases, deaths	Los Angeles	Testing, cases, deaths
Oklahoma	Cases, recoveries, deaths		

**Table 3. Reporting of place of stay**

Source	Place of stay definition	Outcome(s)
Alabama	<i>Congregate settings:</i> Long-term care facilities (LTCF)	Cases
Arizona	<i>Congregate settings:</i> Assisted living; LTCF; rehab facility; workplace; prison/detention center; hospital; shelter; private setting (residential); hospice; childcare/daycare/school; outpatient/clinic; college/university; religious facility; dialysis clinic	Cases
Arkansas	Correctional facilities; nursing homes	Cases, deaths
California	Skilled nursing facilities	Cases, deaths
Colorado	Correctional facilities  <i>Post-hospitalization status:</i> Home; died; skilled nursing facility; another hospital; long term acute care; other	Testing, cases, deaths  Hospitalizations
Connecticut	Nursing home;  Assisted living facilities;  Correctional facilities	Cases, deaths  Cases, deaths  Cases, recoveries, deaths
Florida	LTCF: nursing home + assisted living facility  Licensed group homes  Correctional facilities	Cases, deaths  Cases  Deaths
Illinois	LTCF  <i>Potential exposure location:</i> Long-term care facility; College or University; Group home; Senior apartment; Behavioral health facility; Faith community; Camp/Athletic facility; Workplace Correctional facility; Homeless shelter or other temporary housing; Healthcare facility; School; Daycare	Cases, deaths  Cases
Indiana	LTCF	Cases
Iowa	LTCF	Cases, recoveries, deaths

Kansas	<p><i>Clusters:</i> Corrections; daycare or school; gathering (bar/restaurant; camp; private event; religious gathering); group; healthcare; long-term care; meat packing; private business; sports</p> <p>Nursing home</p> <p><i>Exposure locations:</i> Corrections; group living; healthcare; LTCF; private business; school</p>	<p>Cases, hospitalizations, deaths</p> <p>Testing, cases</p> <p>Cases</p>
Kentucky	LTCF	Cases, recoveries, deaths
Louisiana	LTCF: nursing homes and other adult residential facilities	Cases, recoveries, deaths
Maryland	<i>Congregate living facilities:</i> nursing homes, assisted living facilities, state and local facilities, and group homes with 10 or more occupants	Cases, deaths
Massachusetts	LTCF	Cases, deaths
	Correctional facilities	Testing
Michigan	LTC: Skilled nursing facility, home for the aged facility, adult foster care facility, long term care facility	Cases, deaths
Minnesota	<p><i>Residence type:</i> Private residence; hotel/motel; LTC facility/assisted living; group home/residential behavioral health; homeless (sheltered); homeless (unsheltered); jail/prison; college/university/camp dorm; work dorm</p> <p>Correctional facilities</p>	<p>Cases</p> <p>Testing, cases, recoveries, deaths</p>
Mississippi	<i>Outbreak setting:</i> Non-LTCF (business, industry, prison/jails, and other settings); LTCF (nursing homes, personal care homes, ICF-IIDs, and assisted living)	Cases, deaths
Montana	LTCF	Cases, deaths
Nevada	Assisted living; behavioral inpatient; childcare; correctional; forensic psychiatric; skilled nursing	Cases, recoveries
New Hampshire	LTCF	Cases, hospitalization, deaths
New Jersey	LTCF; state psychiatric hospitals; veteran memorial homes	Cases, deaths
New Mexico	LTCF	Cases, deaths

New York	Nursing home	Cases
North Carolina	Congregate living settings (nursing home; residential care facility; correctional facility; other; not living/working in congregate living setting); childcare; school	Cases, deaths
North Dakota	LTCF	Cases, deaths
Ohio	Correctional facilities; youth services	Cases, deaths, recoveries
Oklahoma	LTCF facilities	Cases, deaths
	Correctional facilities	Cases, deaths
Oregon	<i>Congregate settings:</i> LTCF, group homes, prisons, shelters; care facilities; senior living communities	Cases, deaths
Pennsylvania	LTCF: nursing homes, personal care homes	Cases, deaths
	<i>Place of death:</i> Hospice, hospital, long term living, residence, other	Cases, deaths
Rhode Island	<i>Congregate care:</i> long term care and assisted living facilities	Cases, deaths
South Carolina	<i>Extended care facilities:</i> Nursing homes; assisted living	Cases, deaths
South Dakota	LTC	Hospitalizations, deaths
Tennessee	LTCF	Cases
	<i>Active clusters:</i> Assisted care facilities; bar; community; construction/building; correctional; farm; homeless shelter; industrial; nursing home; other facilities; restaurant	Cases
Texas	Nursing homes; assisted living facilities; private intermediate care facilities for individuals with an intellectual disability or related condition; home and community-based services and Texas home living contracted providers; licensed child care centers, school-age programs, and before- or after-school programs; registered and licensed child care homes; LTCF	Cases, recoveries, deaths
Utah	LTCF	Cases, deaths
	<i>Outbreaks:</i> workplace, hospital/clinic, group living, detention facility, school, childcare, other settings	Cases, hospitalizations, deaths

Vermont	<p><i>Outbreaks:</i> congregate care/living settings, workplaces, community setting, educational settings</p> <p>LTCF</p>	<p>Cases, deaths</p> <p>Testing, cases</p>
Virginia	<p><i>Outbreaks by exposure settings:</i> Assisted living facilities; day programs; K-12 schools; medical care facilities; multicare facilities; nursing homes; residential programs; summer camps</p> <p><i>Outbreak facility type:</i> LTCF; correctional facility; healthcare setting; college/university; child care; K-12</p>	<p>Cases, deaths</p> <p>Cases, deaths</p>
Washington	<p>LTCF</p> <p><i>Outbreaks:</i> Non-healthcare congregate settings; LTCF</p>	<p>Cases, deaths</p> <p>Cases</p>
West Virginia	LTCF	Cases, recoveries, deaths
Wisconsin	<p><i>Outbreaks:</i> LTCF; workplaces; group housing facilities; healthcare facilities; other settings</p> <p><i>Group housing:</i> LTCF; other group housing; not group housing; unknown</p>	<p>Cases</p> <p>Cases, deaths</p>
District of Columbia	<p>Shelters</p> <p><i>Outbreak settings:</i> [16 categories]</p>	<p>Cases</p> <p>None</p>
New York City	<i>Location of death:</i> hospital/emergency room, nursing home/hospice, home	Deaths
Los Angeles	<i>Locations:</i> Skilled nursing facilities; homeless service settings; residential congregates; acute care settings; non-residential settings	Cases, deaths
Philadelphia	Prisons	Cases
Chicago	<p><i>Community outbreaks:</i> Long-term care; congregate living; child care; school/IHE; other community</p> <p><i>Clusters:</i> Long-term care facility; College or University Group home; Senior apartment; Behavioral health facility; Faith community; Camp/Athletic facility; Workplace; Correctional facility; Homeless shelter or other temporary housing; Healthcare facility; School; Daycare</p>	<p>Cases</p> <p>Cases</p>
Detroit	Nursing homes	Cases, deaths

Seattle	Homeless facilities	Cases, deaths
	LTCF	Cases, deaths

**Table 4. Reporting of exposures**

Source	Exposure definition	Outcome(s)
Alaska	<i>Acquisition type:</i> Travel; community; secondary	Cases
Arizona	<i>Congregate settings:</i> Assisted living; LTCF; rehab facility; workplace; prison/detention center; hospital; shelter; private setting (residential); hospice; childcare/daycare/school; outpatient/clinic; college/university; religious facility; dialysis clinic	Cases
Arkansas	Educational institutions	Cases
Delaware	<i>Venues visited:</i> Restaurant, religious service, beach, other tourist attraction, gym, house party, other large gathering, dinner party, bar, nail or hair salon/spa, recreational center, wedding, outdoor event, pro or youth sporting event, amusement park, indoor play center, resort, bonfires, pool, festivals, concert  In-person school	Cases
Florida	<i>Risk factors:</i> Traveled, contacted with a known case, traveled and contacted with a known case, neither	Cases
Hawaii	<i>Clusters:</i> Congregate settings (correctional facility, educational settings, shelters), food service, production, and distribution (bar & nightclubs, food suppliers, restaurants), occupational settings (construction & industrial, other occupational setting, travel, lodging & tourism), social and recreational activities (social gatherings, places of workshop)	Cases
Kansas	<i>Clusters:</i> corrections; daycare or school; gathering (bar/restaurant; camp; private event; religious gathering); group; healthcare; long-term care; meat packing; private business; sports	Cases, hospitalizations, deaths

	<i>Exposure locations:</i> Corrections, group living, healthcare, LTCF, private business, school	Cases
Maryland	School	Cases
Massachusetts	Higher Education and LTCF	Cases
Michigan	School-related outbreak  <i>Outbreak investigations</i> [17 categories]	Cases  Cases
Minnesota	<i>Likely exposure:</i> travel, homeless/shelter, community (known contact), congregate care (staff or resident), health care (staff), community (no known), community (outbreak), corrections	Cases
Montana	Schools	Cases
New Hampshire	Schools	Cases, recoveries
New Mexico	<i>Possible exposures and activities:</i> attending other gatherings, shopping, travel outside NM, visits to gyms, visits to places of worship, visits to restaurants and breweries	Cases
North Carolina	Childcare; School	Cases, deaths
North Dakota	<i>Source of exposure:</i> close contact, community, confirmed travel, household contact, possible travel, under investigation	Cases
Oregon	Schools; Workplace	Cases
Tennessee	<i>Active cluster:</i> assisted care living facility, bar, community, construction/building, correctional, farm, homeless shelter, industrial, nursing home, other facility, other healthcare, restaurant	Cases
Utah	LTCF; <i>Outbreaks:</i> workplace, hospital/clinic, group living, detention facility, school, childcare, other settings	Cases, hospitalizations, deaths
Vermont	<i>Outbreaks:</i> congregate care/living settings, workplaces, community setting, educational settings	Cases, deaths
Virginia	<i>Outbreaks by exposure settings:</i> assisted living facilities, day programs, K-12 schools, medical care facilities, multicare facilities, nursing homes, residential programs, summer camps  <i>Outbreak facility type:</i> LTCF, correctional facility, healthcare setting, college/university, child care, K-12	Cases, deaths  Cases, deaths

Washington	<i>Confirmed cases by industry</i>	Cases
Wisconsin	<i>Outbreaks:</i> LTCF, workplaces, group housing facilities, healthcare facilities, other settings	Cases
Wyoming	<i>Exposure risk:</i> contact with known case, community spread, domestic travel, communal living, international travel	Cases
District of Columbia	Public Schools  <i>Exposure activities:</i> travel, personal care, faith-based events, work, dining out, social events, gym/fitness, sports  <i>Outbreak settings</i> [16 categories]	Cases  Cases  None
Chicago	<i>Community outbreaks:</i> long-term care, congregate living; child care, school/IHE, other community  <i>Clusters:</i> long-term care facility, college/university, group home, senior apartment, behavioral health facility, faith community, camp/athletic facility, workplace, correctional facility; homeless shelter or other temporary housing, healthcare facility, school, daycare	Cases  Cases

**Table 5. Health Equity Task Force and other Equity-related Initiatives**

Source	Name of task force	Data collection guidelines	Launch date
Arkansas	<a href="#">Arkansas COVID-19 Health Equity Response Team</a>	Yes	NA
California	The California Department of Public Health's <a href="#">health equity metric</a>	No	September 30, 2020
	<a href="#">Health Equity Technical Assistance Team (Vaccine)</a>	No	September 30, 2020
Colorado	<a href="#">COVID-19 Health Equity Response Team</a>	Yes	May 15, 2020
	<a href="#">Health Equity Line of Effort (Vaccine)</a>	No	October 16, 2020

District of Columbia	<a href="#">Equity and Vulnerable Populations Committee</a>	Yes	April 28, 2020
Illinois	<a href="#">COVID-19 Health Equity Task Force</a>	No	N/A
Indiana	<a href="#">Racial Disparity Task Force on COVID-19</a>	No	May 15, 2020
Louisiana	<a href="#">COVID-19 Health Equity Task Force: (detailed introduction)</a>	<b>Yes</b>	April 20, 2020
Maryland	<a href="#">COVID-19 Access to Justice Task Force</a>	No	June 11, 2020
Massachusetts	<a href="#">COVID-19 Data Collection Bill</a>	Yes	June 9, 2020
	<a href="#">COVID-19 Health Equity Advisory Group</a>	Yes	N/A
Michigan	<a href="#">Michigan Coronavirus Task Force on Racial Disparities</a>	Yes	April 20, 2020
Minnesota	<a href="#">Gov. Tim Walz's Community Resilience and Recovery work group</a>	No	April 17, 2020
New Hampshire	<a href="#">COVID-19 Equity Response Team</a>	Yes	May 28, 2020
New Jersey	<a href="#">A legislation</a> that requires hospitals to report COVID-19 demographic data to the DOH.	<b>Yes</b>	April 22, 2020
	<a href="#">Racial Equity Rapid Response Team</a>	Yes	June 22, 2020
New Mexico	<a href="#">Council for Racial Justice</a>	No	July 31, 2020
North Carolina	<a href="#">Andrea Harris Social, Economic, Environmental, and Health Equity Task Force</a>	<b>Yes</b>	June 4, 2020
Ohio	<a href="#">Minority Health Strike Force</a>	Yes	April 2020
	<a href="#">Equity Advisory Board</a>	NA	August 13, 2020
Oregon	<a href="#">Equity Framework in COVID-19 Response and Recovery</a>	Yes	June 2020

Pennsylvania	<a href="#">COVID-19 Response Task Force for Health Disparity</a>	Yes	April 15, 2020
Rhode Island	<a href="#">COVID-19 Equity Council</a>	Yes	May 2020
Tennessee	<a href="#">COVID-19 Health Disparity Task Force</a>	No	April 16, 2020
Utah	<a href="#">The Multicultural Committee</a> of the Utah COVID-19 Community Task Force	No	April 23, 2020
Vermont	<a href="#">Racial Equity Task Force</a>	No	June 2, 2020
Virginia	<a href="#">Health Equity Leadership Task Force</a>	No	March 13, 2020
Washington	<a href="#">Safe Start Advisory Groups - Social Supports Community Leaders Group</a>	No	May 5, 2020
West Virginia	<a href="#">COVID-19 Advisory Commission on African American Disparities</a>	Yes	May 1, 2020
Wisconsin	<a href="#">Wisconsin State Assembly Speaker's Task Force</a>	No	September 8, 2020
New York City	<a href="#">Taskforce on Racial Inclusion and Equity</a>	No	April 26, 2020
Philadelphia	<a href="#">Coronavirus Interim Racial Equity Plan</a>	<b>Yes</b>	July 27, 2020
	<a href="#">Task Force: Health Disparity</a>	<b>Yes</b>	April 17, 2020
Chicago	<a href="#">Racial Equity Rapid Response Team</a>	No	April 2020
Boston	<a href="#">COVID-19 Health Inequities Task Force</a>	<b>Yes</b>	April 8, 2020
Houston	<a href="#">Health Equity Response Task Force</a>	No	April 2020