Data Dictionary of essential and recommended information for states and counties to publicly report (DRAFT)
Resolve to Save Lives
July 21, 2020

#	Indicator	Definitions	Rationale	Frequency	Stratification	Suggested target	Data presentation
1	New confirmed and probable cases and per-capita rates by date with 7-day moving average	1a. New confirmed cases defined as individuals with a newly confirmed COVID-19 diagnosis through via screening (antigen)* or diagnostic (PCR) tests; probable cases defined as indicated by CDC 1b. Date. Jurisdictions should report cases and per capita rates daily and specify whether they are reporting laboratory-confirmed cases by the date of specimen collection, date of illness onset or the date of report. Date of specimen collection is the preferred option. Probable cases should be reported by date of report from the reporting hospital or physician. To facilitate inter-state comparison, jurisdictions reporting by date of specimen collection should also provide information on date of report (until all states are reporting by date of specimen collection). 1c. Per-capita rate. (Number of cases x 1,000,000)/(population of the jurisdiction.). 1d. 7-day moving average: Sum of the number of cases on that day plus the number of cases on the six previous days, divided by 7. (Excel has an option to automatically plot this trend line)	Daily new cases reflect the proportion of the outbreak captured by surveillance systems. Cases give a sense of the size of the epidemic/ outbreak in a given area. Per-capita rates are more useful when comparing locations with different population sizes.	Daily	Age, sex, race, ethnicity and zip code Outbreaks vs. community** Case type (confirmed or probable) Test type (antigen or PCR)	Decreasing over 14 days or at low level***	Categorical bar graph of cases by date, overall and stratified as specified, with 7-day moving average trend line
2	Percent of new cases epidemiologically linked to at least one other case by date, stratified by whether part of known outbreak or not, with threshold	2a. New cases—cases captured by the jurisdiction in a given week, either the positive screening or diagnostic test result reporting date from the laboratory or the probable symptomatic case report from the physician or hospital. 2b. Case classification—Cases will be classified as linked, unlinked or under investigation. Data may change as case investigations are completed. 2c. Epidemiologic linkage—Cases will be considered linked if any of the following are	Linked and unlinked cases are an indicator of community transmission and of the strength of the response. The higher the percent of linked cases, the more robust the surveillance	Weekly	Age, sex, race & ethnicity Outbreaks vs. community	>80%	Categorical bar graph of indicator by week, overall and stratified as specified, with number and percent of cases linked and unlinked,

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		true: (i) the case fit the eligibility criteria for being part of an identified outbreak with at least one case (ii) a household contact of the case was also an identified COVID-19 case (iii) the case was a named contact of a previously identified case (iv) the case had recently arrived from another jurisdiction experiencing high levels of Covid-19 prevalence. Otherwise the case will be considered unlinked. If no link is reported and the case investigation is complete, classify the case as unlinked. 2d. Calculating percent: Numerator=number of cases classified as linked x 100/total number of cases in the given week. 2e. If linked cases not reported, assume percent linked cases is zero.	and response system and the lower the risk to the community at large.				with target threshold
3	New screening (e.g. antigen) and diagnostic (e.g. PCR) testing per-capita rates by date, with threshold, with 7-day moving average	3a. Screening test—Test designed to detect the coronavirus antigen 3b. Diagnostic test- Test designed to detect a key sequence of the coronavirus RNA using the technique called polymerase chain reaction or PCR. 3c. Per capita rates: (total number of screening and diagnostic tests provided in the jurisdiction on a given day) x 1000/(population of the jurisdiction) 3d. 7-day moving average: Sum of the per-capita testing rate on a given day plus the per capita rates on the six previous days, divided by 7. (Excel has an option to automatically plot this trend line)	Testing rates are a main driver of case detection, and differences in testing rates are important to consider when comparing incidence in different groups or locations	Daily	Age, sex, race & ethnicity Test type	>1.5 tests/1,000/day	Categorical bar graph of tests by date, overall and stratified as specified, with 7-day moving average trend line.
4	Percent of screening (e.g. antigen) and diagnostic (e.g. PCR) tests positive by date, with threshold, with 7-day moving average	4a. Screening test—Test designed to detect the coronavirus antigen 4b. Diagnostic test- Test designed to detect a key sequence of the coronavirus RNA using the technique called polymerase chain reaction or PCR. 4c. A positive test is a screening or diagnostic test that indicates the presence of the coronavirus in the specimen 4d. Percent positive=(Number of positive tests reported on a given day)/(Total number of	Test positivity is an important indicator of the extent of testing being performed in relation to the amount of disease in a given area. When test positivity is low, this indicates that	Daily	Age, sex, race & ethnicity Test type	<3% positivity	Categorical bar graph of tests and result by date, overall and stratified as specified, with 7-day moving average trend line of positivity,

		tests with results reported that day). If possible to report on unique individuals rather than tests, then this is preferred and should be explicitly stated 4e. 7-day moving average=(Sum of the number of positive tests reported on a given day plus the previous six days)/(Sum of the total number of tests with results reported on a given day plus the previous six days). (Excel has an option to automatically plot this trend line)	locations are testing enough to find all cases.				with target threshold (can be combined chart with #4)
5	CLI and ILI trends from emergency departments	5a. CLI=Covid-Like Illness. This is defined by 1) Fever and any one of the following: cough, shortness of breath or difficulty breathing, or 2) Presence of a coronavirus diagnosis code 5b. ILI=Influenza-Like Illness. Fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat without a known cause other than influenza. 5c. CLI and ILI trends. A subset of emergency departments in 47 states report the total number of emergency department visits and the percent of those that meet the definitions of CLI and ILI to the National Syndromic Surveillance Program 5d. Seasonal baselines. CDC calculates a seasonal baseline for each region of the country for the current influenza season based on statistics for the three previous years. These are available at https://www.cdc.gov/flu/weekly/overview.htm	Syndromic surveillance indicators are used to monitor trends in outpatient and emergency visits and can be used to detect a rise in COVID-19 cases before a rise in confirmed cases occurs.	Weekly		At or below adjusted baseline, declining	Line graph of CLI and ILI percentage of overall visits by week, stratified by syndrome
6	COVID hospitalization per-capita rates by date and 7-day moving average	6a. Date. Date of hospital admission. Readmissions within 30 days should not be counted as a separate admission. 6b. COVID-19 hospitalization—stratify by laboratory-confirmed vs. clinically presumed cases of COVID-19, and report the total. 6c. Per-capita rates=(Total number of COVID admissions) x 100,000 /(Population of jurisdiction) 6d. 7-day moving average: Sum of the per-capita hospitalization rate on a given day plus the per capita rates on the six previous days, divided	COVID-specific hospitalization rates reflect the proportion of the population that has a severe enough case of COVID-19 to require inpatient treatment, and important for healthcare system	Daily	Age, sex, race & ethnicity	Decreasing or low level	Line graph of hospitalization rates by date, overall and stratified as specified, with 7-day moving average trend line

		by 7. (Excel has an option to automatically plot this trend line)	preparedness and impact of COVID on specific populations. Rates allow for comparisons across geographies of different sizes.				
7	Percentage of licensed beds occupied by suspected and confirmed COVID-19 patients by date	7a. Hospital beds. To calculate the maximum number of beds potentially available to treat COVID-19 patients in an emergency situation, we are using the total number of licensed acute care hospital beds reported each month by acute care hospitals within a jurisdiction. Swing beds that may be used for either acute care or long-term care should be counted within this total. The total should be inclusive of intensive care and coronary care beds. 7b. Bed occupancy. Count each patient each day that person is in the hospital, from admission until discharge. 7c. Suspected and confirmed COVID-19 patients. Patients who have received a positive PCR or antigen test result for COVID-19, plus those who have a recorded current diagnosis of suspected COVID-19 on their chart (either ICD codes U07.1 COVID-19 virus identified or U07.2 COVID-19, virus not identified) 7d. Percentage=(Number of acute care hospital beds in the jurisdiction occupied by suspected and confirmed COVID-19 patients)/(Total licensed acute care beds in the jurisdiction)	The percentage of hospital beds filled by COVID-19 patients is important to understand the impact on the health system and to plan for surge.	Daily	Patient type	Low proportion (<10%)	Categorical bar graph by date, overall and stratified by patient type (suspected and confirmed), with target threshold.
8	List (to extent legally permissible in State) of long-term care and other congregate facilities (homeless shelters, correctional facilities), essential workplace (e.g.	8a. Outbreak. Two or more suspected or confirmed cases of COVID-19 that are epidemiologically linked in a common setting. 8b. List. To the extent legally permissible in the state, outbreaks should be listed individually by the name of residential facility, venue or workplace. Outbreaks in homeless shelters, correctional facilities and military bases should be included. The list should include (i) the	Long-term care and congregate facilities are disproportionately impacted by the pandemic and a major source of COVID-19 deaths. Early detection of	Cumulative and most recent week		Low level of cases Outbreaks, if any, rapidly detected and stopped	Table of facilities with cases and deaths in both residents and staff, cumulative and for the

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	meat-packing) outbreaks with COVID-19 cases and deaths in residents and staff (cumulative numbers of cases and deaths and numbers in most recent week); aggregate numbers until specifics legally allowed to be reported, if there are current restrictions	number of cases stratified by type of individual (resident, staff/employee, customer, visitor) (ii) the number of deaths attributed to COVID-19 (iii) the start date of the outbreak, (iv) if the outbreak is resolved or continuing, (v) if resolved, the date the outbreak was resolved (vi) any current restrictions applying to the facility or location of the outbreak. 8c. Aggregate statistics. Number of cases and deaths occurring in outbreaks, by week.	outbreaks and rapid response to them can greatly impact overall COVID-19 death rates.				most recent week
9	New COVID-19 confirmed and probable deaths by date and per-capita mortality rates with 7-day moving average	9a. Date. Date of death. (Cause of death usually takes at least 7 days to report. Data will change as delayed deaths are reported). 9b. Deaths due to COVID-19. Deaths for which COVID-19 is listed as the direct, probable or presumed cause of death on the death certificate 9c. 7-day moving average of number of deaths: Sum of the number of deaths on that day plus the number of deaths on the six previous days, divided by 7. (Excel has an option to automatically plot this trend line) 9d. Per-capita mortality rate: (Cumulative deaths due to COVID-19 x 100,000)/(Population of the jurisdiction)	Deaths reflect disease severity, access to care, , healthcare-seeking behavior, diagnostic capacity, and the effectiveness of treatment. It is important to understand death rates in different subsets of the population in order to allocate resources and target interventions.	Daily	Age, sex, race, ethnicity and zip code Outbreaks vs. community	Decreasing over 14 days or at low level	Categorical bar graph of deaths by date, overall and stratified as specified, with 7-day moving average trend line
10	Diagnostic (PCR) test turnaround time (specimen collection to test report), by week	10a. Diagnostic test refers to a PCR test carried out to diagnose COVID-19. Specimens may be sent to laboratories for analysis or may be analyzed at the point of service. 10b. Turnaround time refers to the interval between the time of specimen collection and the time that results are reported to the public health department, either through electronic laboratory	Timely test results are critical to timely isolation of cases and quarantine of contacts. Delayed test results can render test-based	Weekly	Age, sex, race & ethnicity	Median time $\leq$48 hours and a high and increasing proportion $\leq$24 hours	Combination bar graph of median test turnaround time and line graph of proportion $\leq$24 hours by

		reporting, fax or other means. Specimen collection and reporting times should be recorded as date, hour and minute to allow average turnaround time to be reported in days, hours and minutes. 10c. For the purpose of calculating the median turnaround time, the times for results not yet reported should be included and ranked at the high end of all times. 10d. Proportion reported within 24 hours: (Number of tests with turnaround times <=24 hours)/Total number of specimens collected in the same 24 period. 10e. Proportion reported within 48 hours: (Number of tests with turnaround times <=48 hours)/Total number of specimens collected in the same 48-hour period.	disease control strategies ineffective.				week, overall and stratified as specified
11	Time from specimen collection to isolation of cases, by week	11a. Time from specimen collected to isolation refers to the interval between when a positive specimen was collected to when the case has been notified and instructed to isolate. 11b. Isolation. For this indicator, isolation refers to the exact time a case was notified they should immediately isolate. If subsequent contact is made with cases and isolation time is discovered to be different than initially captured, it should be corrected.	In order for testing to be an effective part of the Box-it-in strategy, mechanisms must be in place to notify cases of their test results and the need for isolation. This will minimize the number of potentially exposed contacts and interrupt ongoing secondary transmission from an infected case who has not been notified of test results.	Weekly	Age, sex, race & ethnicity	>80% within 48 hours	Combination bar graph of median time from specimen collection to isolation of cases and line graph of proportion of cases isolated within 48 hours by week (Y axis 1: Time in hours, Y axis 2: percentage, X axis: MMWR week)
12	Percentage of cases interviewed for contact elicitation	12a. Cases interviewed. This refers to the date/time when cases were interviewed for	Timely identification of contacts is	Weekly	Age, sex, race & ethnicity	>80%	Weekly percentage of new cases

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	within 48 hours of case specimen collection, including all people with positive tests who reside in the jurisdiction, by week	contact elicitation, not the time the first contact was made. 12b. Cases. This refers to all people with positive tests in a given jurisdiction	essential to limit potential disease transmission. Cases should be interviewed soon after they are tested and a timely test result is obtained.				from among quarantined contacts presented in a bar graph with a trend line
13	Percentage of new cases from among quarantined contacts, by week	13a. Source: this data is defined as coming from a contact tracing case management system, in which contacts previously elicited from identified cases can be matched to cases newly identified through laboratory and clinical case reporting. 13b. Date. The week that the case is reported. 13c. Percentage= (number of quarantined contacts matched to new cases) x 100/(total number of new cases)	The percentage of new cases linked to already-known cases can serve as a measure of the contact tracing effectiveness, and reflect on the degree of ongoing uncontrolled community transmission.	Weekly	Outbreaks vs. community	>50%	Weekly percentage of new cases from among quarantined contacts presented in a bar graph with a trend line.
14	New infections among health care personnel not confirmed to have been contracted outside of the workplace, by week	14a. This data is defined as coming from a case investigation case management system which collects information about employment. 14b. Health care workers include all individuals providing direct patient care in a hospital, long-term care facility or home care setting. 14c. Epidemiologically linked to cases outside of the workplace means that case investigation has found that the case was in personal touch with a household member or social contact with previous symptoms or positive test for COVID-19 or had been linked to a COVID-19 outbreak in an entertainment, restaurant etc.venue.	Infections among health care personnel reflect appropriate IPC practices and use of personal protective equipment, strength of the health workforce, and need to be prevented to minimize harm to vulnerable populations in hospitals, long term care facilities and direct patient care settings.	Weekly	Age, sex, race & ethnicity	0	Weekly number of infections among health care personnel represented in a bar graph with a trend line.
15	Percentage of people wearing	15a. Wearing masks or face coverings correctly means the use of a medical/surgical mask, N95	Mask wearing and use of cloth face	Weekly	Type of setting where	>80%	Categorical bar graph of

masks or face coverings correctly in public indoor settings (e.g., mass transit, shopping), based on direct observation or security camera analysis, by a standard, consistent method, by week	respirator, or cloth face covering that fully covers the nose and mouth. 15b. Percentage = (number of people observed wearing a mask or face covering/total people observed) x 100 15c. Public indoor setting includes any enclosed indoor setting readily accessible by the general public: retail, public office or government building, general merchandise/grocery, public transportation, recreation space such as museum, or library. 15c. Consistent method means that the same method (direct vs camera) should be used in the same location (e.g. entry point) for serial observations. Any changes to practices should be noted in reporting.	coverings have been shown to reduce transmission of COVID-19. Measuring adherence can guide need for public messaging and assist in modeling disease transmission projections.	measurement was taken	percentage of people observed using masks or face coverings correctly by week with a trend line. Type of measurement (direct observation vs camera analysis) should be indicated.

* Some authorities recommend considering antigen positive people as probable rather than confirmed cases, however the predictive value positive of a positive antigen test can be at or near 100%.

**Outbreaks vs. community. Outbreak cases are defined as cases linked to one or more cases at a congregate resident facility, correctional facility, workplace or defined mass event. Cases due to community spread are defined as those which cannot be definitively linked to one of these settings.

*** Such as below 10 cases per 100,000 population over 2 weeks (CDC)