



TABLE 1

Assessment of Data Types by Criteria for Reliability and Validity

	Representativeness	Bias	Uncertainty, Measurement & Sampling Error	Time	Space
Number of confirmed cases					
<i>Key Implication for Decision Making:</i> This measure is readily available, but is likely to be a substantial underestimate of the prevalence of the disease in a population given that most people with COVID-19 are asymptomatic, and even among those who are symptomatic, not all are tested. As the volume of testing expands to include populations with less severe symptoms and asymptomatic individuals, this measure will be increasingly useful for determining the prevalence of COVID-19.					
Hospitalizations					
<i>Key Implication for Decision Making:</i> Data on hospitalizations are typically available quickly at the local level, although the completeness of reporting may vary from day to day. These data reflect only the most severe cases of infection, but changes in the number of hospitalizations likely reflect similar changes in the total number of infections within a community. Note patients requiring hospitalization were exposed several weeks previously.					
Emergency department visits					
<i>Key Implication for Decision Making:</i> In some jurisdictions, data on emergency department (ED) visits are available at the local level in close to real time. The reason for the visit can be reported either as a syndrome (e.g., “influenza-like illness”) or as a specific diagnosis (e.g., “COVID-19”). These data are most useful in the early stages of an outbreak or to assess resurgence, though it should be noted that patients with symptoms were exposed up to 2 weeks earlier.					
Reported deaths					
<i>Key Implication for Decision Making:</i> Reported COVID-19 deaths are affected by the accuracy of cause-of-death determinations and reflect the state of the outbreak several weeks previously because of the long course of COVID-19 infection. Sometimes lags in reporting of data also occur.					
Excess deaths					
<i>Key Implication for Decision Making:</i> Compared with the other data reviewed here, excess deaths are the best indicator of the mortality impacts of the pandemic. However, because of the possibility of death misclassification, these data represent a mix of confirmed COVID-19 deaths and deaths from other causes.					
Fraction of viral tests that are positive					
<i>Key Implication for Decision Making:</i> This measure is readily available, but is likely to be a substantial underestimate of the prevalence of the disease in a population given that most people with COVID-19 are asymptomatic, and even among those who are symptomatic, not all are tested. As the volume of testing expands to include populations with less severe symptoms and asymptomatic individuals, this measure will be increasingly useful for determining the prevalence of COVID-19.					
Prevalence surveys (representative)					
<i>Key Implication for Decision Making:</i> : Representative prevalence surveys are the best strategy for understanding the prevalence of a disease in any given population at a specific point in time. Such surveys can be undertaken for specific populations (e.g., workplace, nursing home, jails and prisons). Although they require undertaking a special study rather than using routinely collected data, many public health agencies have this capacity. There will be some time lag involved, however, in mounting and interpreting such a survey.					

 Data source usually meets this criterion.
 Data source may or may not meet the criterion, and questions related to that criterion should be asked.