

# Using Data For Action

A Kidsdata Handbook



## Overview

**Kidsdata is a program of PRB.** Our website, [kidsdata.org](http://kidsdata.org), is a public resource with comprehensive data on children's health in California. We hope you will use the data to raise the visibility of key issues affecting children across the state. *Using Data for Action: A Kidsdata Handbook* provides tips and tools for data-driven change, from crafting powerful messages to determining the best data to tell your story. For more resources including inspiring success stories of data-driven change, visit the "Data in Action" section of [kidsdata.org](http://kidsdata.org).

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### About Kidsdata.org

Kidsdata.org offers over 600 indicators on the health and well-being of children in communities across California. Users can customize data for writing grants and reports, tracking progress or identifying new issues of concern. Other features include summaries of each topic's significance, links to key research, and suggestions for actions to address specific concerns that affect children.

The type of information on [kidsdata.org](http://kidsdata.org) include:

- Topics by categories: Child and Youth Safety, Children with Special Health Care Needs, Demographics, Education & Child Care, Emotional & Behavioral Health, Environmental Health, Family Economics, Physical Health;
- Regions: state, counties, cities, school districts, legislative districts;
- Demographic Groups: age, children with special health care needs, gender, immigrants, income level, race/ethnicity

The data on [kidsdata.org](http://kidsdata.org) have not been tested for statistical significance. Trends over time and differences across regions or demographic groups may or may not be statistically significant.

### Data Sources

Data on [kidsdata.org](http://kidsdata.org) are from public sources and representative surveys. You can find information about data sources in the notes below figures on indicator pages. Data are continually updated. Be sure to sign-up for our newsletter at [kidsdata.org](http://kidsdata.org) to stay up to date.

### Permission to Cite

Permission to cite the information and reproduce figures on [kidsdata.org](http://kidsdata.org) is granted. Suggested citation: [Data source.] As cited on [www.kidsdata.org](http://www.kidsdata.org), a project of PRB. Retrieved on [date].



## Crafting a Message for Data-Driven Change

### What is your purpose?

A strategic step toward communicating about children's health and well-being is being explicit about your purpose. In addition to clarifying your purpose, understand your social, economic, and political environment as you develop a strategy to use data for change. Consider:

#### What is a clear statement of your issue?

Concisely state the issue.

**Why does your issue matter?** Answer the "so what" question for why the issue requires action. Elaborate on the problem central to your issue. Think about equity and how the issue affects your community. Use data to support your claims. Consider adding a descriptive narrative or anecdotes.

**What is your proposed solution?** Describe and substantiate the approach that will most effectively address the issue.

**Who are the stakeholders?** Stakeholders are your allies and opponents on the issue. Some examples include: policy makers, community activists, local program leaders, service providers, business owners, law enforcement staff, and health department staff. Consider why they are stakeholders, and what do they have to gain from supporting or opposing your issue.

**What are the barriers and facilitators?** What are challenges to enacting change on your issue? What is the current political climate, and what are current priorities? Is your issue a major concern when compared to other current events, and what do you need to do to elevate concern?

### Who is your audience?

The data you need depend on your goal and whom you have to convince. In general, the level of complexity you use when presenting data depends on the people you are addressing.

**Big Picture:** Politicians, the general public and the media are audiences who tend to need information that is descriptive and quickly understandable, often from an overall perspective or big picture point of view. An example is communicating about the extent of emotional health issues among youth by showing the percentage of youth who feel depressed by demographic groups.

**Details:** Committee staff, special interest groups, and legislative analysts tend to want more detail than the big picture offers. This information will have more layers to it; often the audience understands the general idea but does not understand the details. An example is communicating about access to mental health care services by identifying the percentage of youth who receive mental health care among those who need treatment.

**Specifics:** Government agencies and academic institutions often need data to be more focused or detailed. Funding or planning decisions may be based on these numbers. An example is communicating about the impact of mental health instability on hospitals by examining categories of hospitalization discharge rates by type and age group.

## Crafting a Message for Data-Driven Change

### How will the data support your message?

Data and stories are most effective when they appeal to values. If you can supply data that accurately describe children’s experiences and that appeals to values, then you have powerful tools to achieve your purpose.

Some common values that data can address are access, equity, rights, quality, and cost:

- **Access**—who has access to services, programs, insurance, etc.? Who doesn’t?
- **Equity**—is there an equitable distribution of resources across groups or regions?
- **Rights**—what are the rights of community members? What laws, regulations, or constitutional protections confer rights? On whom are the rights conferred?
- **Quality**—how is quality of life, environment, services, and programs impacted?
- **Cost**—what is the cost to taxpayers, community, business, individuals, and others?

### If data are not available for your message, what can you do?

“Proxy” measures are data that can substitute for the data you need because they are closely related to your issue. For example, you may want to improve college readiness among youth in your county. You could use the percentage of students taking college preparatory classes as a proxy of college readiness and make a statement such as, “College readiness among students in our county may be lower than for California students overall, as suggested by a lower rate of college prep course completion in our school districts.”

A major advantage of using proxy measures is its low cost. The data can be relatively easy and inexpensive to find or collect. However, there may be concerns with generalizability. You will need to judge whether the data are a suitable proxy and be transparent about your approach.

### Can you combine quantitative and qualitative data?

**Quantitative data** are usually measured and expressed in the form of numbers, rates or percentages. These data answer questions of who, what, when and where.

**Qualitative data** are usually measured and expressed in the form of words, concepts, themes, or categories. Qualitative data are often used to gain a more in-depth understanding of a particular incident or phenomenon - answering how or why something is occurring. You might use a descriptive narrative or an anecdote.

Combining quantitative and qualitative data strengthens messages. When possible, collect both kinds of data and use them in your work because they serve two different functions when attempting to paint a complete picture of your issue. For example, you may collect quantitative data on percentage of youth who receive mental health care among those who need it and collect qualitative information through interviews, focus groups or surveys with open-ended questions about why some youth don’t receive the care they need.



## Five Criteria for Good Data

Data have the power to transform the way we see the world, from identifying health disparities to strengthening a case for policy change. When determining the best data to support your work, consider the five criteria below: correlation versus causation, credibility, reliability, generalizability and timeliness. Remember, no data are perfect. Use your best judgment and be transparent.

### 1 Correlation Versus Causation

Correlation refers to two findings that are associated. Causation refers to one finding causing another.

- Without statistical testing, do not assume how data are related. For example, number of substantiated abuse and neglect cases and days with ozone levels above standards have both decreased since 1998. They have the same pattern but are not likely related and one does not likely cause the other. As with any two sets of indicators, you cannot make conclusions about a pattern without testing.

*Kidadata.org does not provide statistical testing to assess how indicators are related. Avoid claims of correlation or causation without statistical testing.*

### 2 Credibility

Credibility refers to the source of the data or who provides the data. Can you trust the entity that produced the data?

- Who paid for, sponsored, or funded the study? Could the data be biased?
- Does the data provider have a stake in a specific finding? Research sponsored by business, religious or political organizations may have missions that influence how they conduct research and interpret findings.
- What is the data provider's reputation for research? Government and academic institutions are considered credible because research is conducted for the public benefit.

*Kiddata.org only contains data from credible sources.*

### 3 Reliability

Reliability refers to the accuracy of the data. Can you trust the data?

- Has the research that produced the data been reproduced by other researchers?
- How were the data collected? Did the researchers adhere to ethical research methods?
- If the data come from a survey, is there response bias? For example, did researchers conduct their survey in different languages if they need information about immigrants?

*Kiddata.org provides only reliable data. See "Data Source" under the "Definition, Source & Notes" section to find more information about data collection methods from the data providers.*

### 4 Generalizability

Generalizability refers to data on a specific population that can be used for other populations.

- Generalizability depends on the way in which the data provider collected the data.
- Understand "who, what, why, when and where" of the data and consider whether the data can apply more broadly. For example, if the data describe Hispanic children, could they also describe Latin American children?
- Be cautious about claiming generalizability and be clear about how populations differ.

*Assess data generalizability in kiddata.org by reviewing the "Definition, Source & Notes" and "Measures of" sections for each indicator.*

## Five Criteria for Good Data

### 5 Timeliness

Timeliness refers to when the research was conducted relative to changes in the environment.

- When was the study done - one year ago, three years ago, or over 10 years ago? And, how fast are changes occurring - months or years? Some data may be relevant over a longer period of time than others.
- Often there will be a lag time, especially with big studies such as the American Community Survey (ACS). Most comprehensive surveys will be a few years old by the time findings are published.
- Even if the research seems old, it may be the best source if more recent data are not available. Admit the limitations of the data and supplement it with other closely related research.

*Kidsdata.org displays time periods for each indicator above the figures as well as in “Data Source” under the “Definition, Source & Notes” section.*



## Telling Your Best Data Story

You have five options for visualizing and sharing data on kidsdata.org. Choose among tables, bars, trends, maps, or pies to express your message through data. Use it to monitor trends, identify disparities and make comparisons. You can use these figures in reports, presentations, proposals, advocacy work, program planning, and other efforts on behalf of children and youth in California. Note that some indicators do not have all figure types due to data limitations.

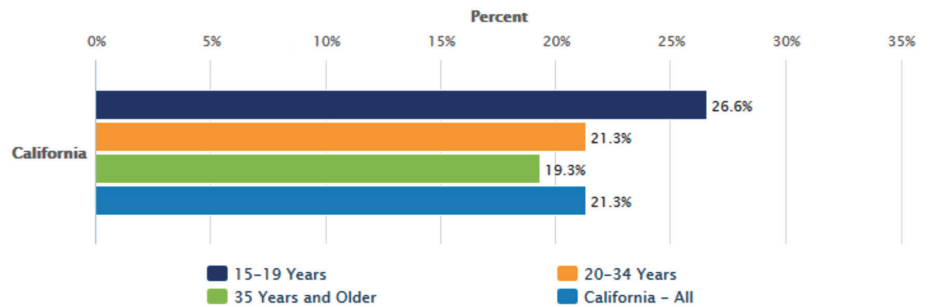
### Table

- Good choice for providing complicated numeric, percentage, or rate information.
- Useful for comparing data for various geographies, groups, or time periods.

California	Rate per 1,000	
Race/Ethnicity	Female	Male
African American/Black	9.3	9.1
American Indian/Alaska Native	4.5	8.7
Asian/Pacific Islander	1.1	0.7
Hispanic/Latino	3.1	3.0
White	3.1	2.5

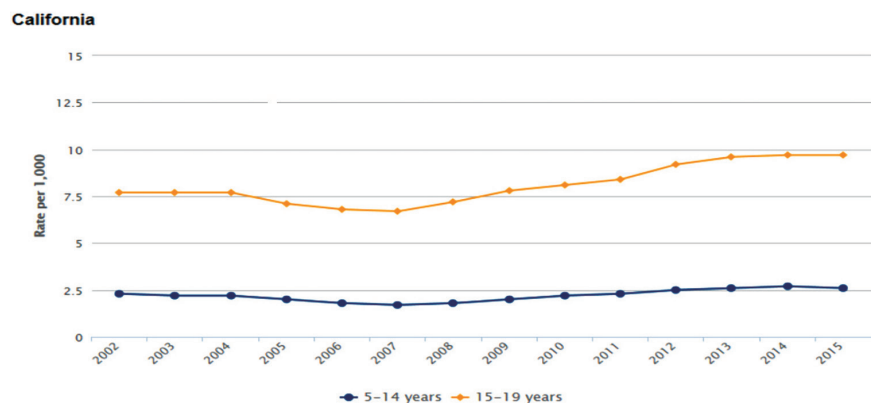
### Bar

- Good choice for comparing quantities and percentages for a single category or timeframe.
- Bars are easy to read and work well to compare differences across groups.



### Trend

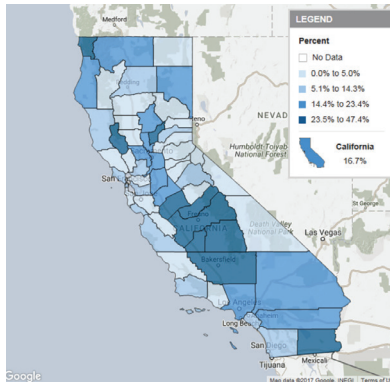
- Good choice to illustrate trends over time. Line movement is easy to interpret.
- Keep the figure simple by including fewer than four lines; avoid frequently overlapping lines.



## Telling Your Best Data Story

### Map

- Good choice to illustrate differences across areas and to provide a broad visual of the issue.
- Demonstrates areas of need and disparity through color.



### Pie

- Good choice to show each part as a proportion of a whole.
- Use for data that have few categories (typically two to five).

