Lessons Learned from a Dozen Years of Engaging Communities with Data
Exports and Imports of SCOTLAND to and from different parts for one Year from Christmas 1760 to Christmas 1761.

The Upright divisions are Ten Thousand Pounds each. The Black Lines are Exports the Ribbed lines Imports.
Lesson #1:

Use data that are available.

(Don’t wait for that perfect dataset to appear.)
Lesson #2:
Create data stories, not just data visualizations.
America's Health Care Crisis

Why the United States Leads the World in Health Care Spending

by Leighann Kinter

The U.S. leads the world in health care spending, but why is that alarming?

It's no surprise that wealthier countries tend to spend more on health care. In fact, we see a strong linear relationship between GDP and relative health care spending per capita for most industrialized countries.

But there is one clear outlier... the United States.

The U.S. spends more than double...
Lesson #3: Appeal to both the heart and the head.
We met Rondal earlier. Rondal works in a grocery store in the Bronx — here’s his story of making ends meet as he tries to make time for friends and family.

The cell phone bill is due, and the credit card bill is due and stuff.
Lesson #4:
Enlist writers, designers, and community members to help you craft your data story.
“The hardest thing for a data person to do is to speak English. The second hardest thing for a data person to do is to write in English.”

- Epidemiologist at a county health department in California
A Tale of Two Births: High- and Low-Performing Hospitals on Maternity Measures in California

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Lower rate is better</th>
<th>Higher rate is better</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SARA GOES TO A HIGH-PERFORMING HOSPITAL.</strong></td>
<td>19%</td>
<td>27%</td>
</tr>
<tr>
<td>The likelihood that she will experience these procedures is:</td>
<td>2%</td>
<td>88%</td>
</tr>
<tr>
<td><strong>MAYA GOES TO A LOW-PERFORMING HOSPITAL.</strong></td>
<td>56%</td>
<td>1%</td>
</tr>
<tr>
<td>The likelihood that she will experience these procedures is:</td>
<td>46%</td>
<td>19%</td>
</tr>
</tbody>
</table>

**What if this variation did not exist?**
If all California hospitals were high performing on maternity measures, it would mean (annually):

- 14,800 [31%] fewer C-sections
- 38,900 [84%] fewer episiotomies
- 119,900 [41%] more babies breastfed
- 12,300 [144%] more VBACs

What Would Happen If Health Care in Your State Improved?

2017 Update

The Commonwealth Fund’s Scorecard on State Health System Performance, 2017 Edition, assessed states on more than 40 indicators of health care access, quality, costs, and outcomes. Use this interactive tool to see the gains that your state could achieve by improving its performance to the level of better-performing states, as well as the losses that would result if your state failed to sustain its performance. You can also see the impact of reaching for a goal that is even better than the current best state's performance.
Lesson #5: Don’t start with the full story.
See your county's Opioid Report Card:

MARIN COUNTY  NAPA COUNTY  SONOMA COUNTY  YOLO COUNTY

Map Source: California Department of Public Health.
Lesson #6:
Make Large Numbers Seem Relatable.
If I look at the mass, I will never act

“Our cognitive and perceptual systems seem to be designed to sensitize us to small changes in our environment, possibly at the expense of making us less able to detect and respond to large changes.”

Numerical representations of human lives do not necessarily convey the importance of those lives. All too often, the numbers represent dry statistics, ‘human beings with the tears dried off.’

- Paul Slovick, psychology professor at the Univ. of Oregon
One in 292 Million

The Powerball jackpot this Saturday is $510 million, but your chances of winning are just one in 292 million. Here's what that looks like.

By Ana Becker
Last updated Aug. 18, 2017 at 11:40 a.m. ET | Published Jan. 13, 2016 at 9:00 a.m. ET

Let's take a look at some odds:

One in Two
The odds of winning a coin toss

One in 10
The odds of being left handed
The terrible numbers that grow with each mass shooting.

The people who were killed came from nearly every imaginable race, religion and socioeconomic background. Their ages range from the unborn to the elderly: 176 were children and teenagers. In addition, thousands of survivors were left with devastating injuries, shattered families and psychological scars.

CLICK ON AN ICON FOR DETAILS ABOUT EACH VICTIM.
Lesson #7: 
**Always talk to your users.**
Youth asthma ED visit rates, on the other hand, are much higher statewide and show much more variation among areas. Counties with the lowest rates tend to be northern and rural. Counties with the highest rates are concentrated in the San Joaquin and Imperial valleys.
Child Abuse and Neglect in California

Substantiated Cases of Child Abuse and Neglect: 2015; Showing Counties

What It Is
Child abuse and neglect indicators are broken into two broad categories: the incidence of child abuse and neglect reports and the incidence of substantiated cases. Generally speaking, most reports of child abuse/neglect are not substantiated by Child Protective Services after an investigation. Typically, as the public becomes more aware of child maltreatment and how to report it, the rate of reports goes up. The rate of substantiated cases is generally a more reliable measure of the prevalence of abuse and neglect because it reflects verified reports. On kidsdata.org, data on both reports and substantiated cases of abuse/neglect are provided overall, by age, by race/ethnicity, and by type of abuse.

Why This Topic Is Important
Child maltreatment can cause serious physical injuries and even death (1). Children who are abused or neglected, including those who witness domestic violence, also are more likely to experience cognitive, emotional, and behavioral problems, such as anxiety, depression, substance abuse, delinquency, difficulty in school, and early sexual activity (1, 2). In addition, child maltreatment can disrupt brain and physical development, particularly when experienced in early childhood, increasing the risk for health problems in adulthood, e.g., heart disease, cancer, obesity, depression, and...
Lesson #8:
Involve local data ambassadors in dissemination.
Lesson #9:
We all need coaches when digesting data that’s about us.
Lesson #10:
Finally, let’s not forget to make data fun!
You Draw It: Just How Bad Is the Drug Overdose Epidemic?

By JOSH KATZ  UPDATED: October 26, 2017

How does the surge in drug overdoses compare with other causes of death in the U.S.? Draw your guesses on the charts below.

Since 1990, the number of Americans who have died every year from car accidents...

![Graph showing number of deaths from car accidents over the years.](image)

Draw the line for the missing years.

Show me how I did.

I don't want to play, just tell me the answers.
Select the year you were born

And we’ll tell you how you stack up to today’s teens. (Unfortunately, government data only goes back to those born after 1972).

1972

Today’s teens are among the best-behaved generation of teens we know of.

- **10.8 percent** of teens today smoke cigarettes. Twenty years ago, **34.8 percent** of high school students did.

- Teenagers today are **46 percent** less likely to binge drink than teenagers 20 years ago. In fact, they’re **21 percent** less likely to have ever tried alcohol at all.

- In 1996, **5.6 percent** of teen girls had babies. Now, that number is **2.3**.

“There is a good amount of positive stuff we find, where the trend is improving and current prevalence is pretty low,” says Stephanie Zaza, who directs the Centers for Disease Control and Prevention’s Division of Adolescent and School Health.

Today’s teenagers are not perfect, and there are some ways teen behavior has gotten worse. Obesity is higher now than it ever was, and high school students do eat fewer vegetables. There are new risks, like e-cigarettes, that the government is just beginning to try to measure.

But when you look at the long-term trends on really important issues that
Thank you!

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www.velir.com/data
Lesson #2: Get as granular as you can.