

Institute for Public Health Practice, Research and Policy

# Visualize This

Storytelling With Data 2025 Session 4



#### Visualize This Resources – IHHS



#### **Training Resources**



#### Iowa Public Health Tracking Portal – HPV Workbook

Visit the HPV Workbook page from the Iowa Public Health Tracking Portal to view the HPV data for the training.







## **Course Objectives**

By the end of this course, participants will be able to:

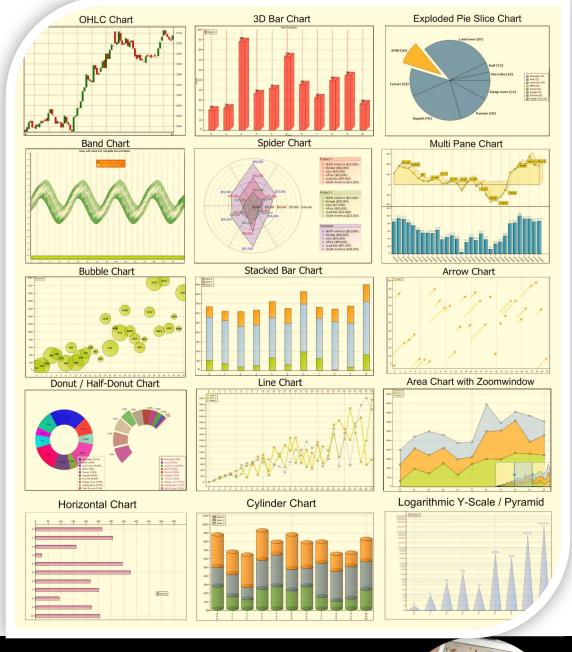
- Summarize the basics of communication theory
- Select strategies for creating effective messages, charts, and graphs.
- Design basic charts to visualize common epidemiologic data
- Access publicly-available resources that can be used for data visualization





## **Small Group Activity**

20 minutes



## **Small Group Activity – 20 minutes**

### In your breakout groups,

- Share your data visualization
- Remind group members of your target audience
- Have group members indicate what message they get from your visualization.
- Was your visualization successful?







# Ok, so now I know how to create an effective chart/graph but is one chart enough?

When would I use an Infographic or a Dashboard?





#### **Choosing the Right Data Visualization Tool**

Select the right visualization tool based on your audience needs, goals, and available resources.

#### Infographics



#### Best For:

- One-time storytelling
- · Public communications
- · Executive summaries

#### **Best Practices:**

- · Have a clear story/ message
- · Logical information flow
- · Consistent visual styling
- Emphasize visuals over text

#### Resources Required:

High initial design effort Minimal maintenance

#### **Distribution Methods:**

- · Print materials
- Digital platforms
- Presentations

#### **Software Options:**

- Adobe Creative Suite
- Canva

#### **Data Placemats**



#### Best For:

- Client engagement
- Collaborative analysis
- Interim findings

#### **Best Practices:**

- Clear visualizations
- · Focus on data interpretation
- Include space for feedback
- · Questions for discussion

#### **Resources Required:**

Moderate setup time Periodic updates

#### **Distribution Methods:**

- In-Person/virtual meetings
- Email
- Collaborative platforms (e.g., Teams)

#### **Software Options:**

- Excel
- Tableau

#### **Dashboards**



#### Best For:

- · Ongoing monitoring
- Interactive exploration
- Regular reporting

#### **Best Practices:**

- Focus on key metrics
- Group related information
- Intuitive filtering controls
- · Include user training

#### Resources Required:

High technical expertise Ongoing maintenance

#### **Distribution Methods:**

- · Internal portals
- · Web applications
- Regular reports

#### **Software Options:**

PowerBI

Tableau

#### **Sharks: Friends or Foe?**

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Attacks 1891 - 1951 1891: "Bosh! Sharks don't bite."

American businessman and millionaire Hermann Oelrichs invited some friends over to his seaside home to make a bet. Believing sharks didn't have an appetite for human flesh, he bet \$250 USD (equivalent to \$7,000 today) and jumped into the water with one to prove it.

Oelrichs continued to pull his party stunt overtime—and furthermore, he publicly offered \$500 USD to anyone who could offer proof of a real shark attack. Sharks were, back then, attacks believed incapable of biting through human bone.

#### 1916: Sharks branded as 'Man-Eaters'

Public sea bathing was starting to take off for the middle and working class. An unusually hot summer heat-wave and Polio epidemic brought thousands of Americans to Jersey's seaside resorts in that summer.

Over a 12 day period, a series of shark attacks along Jersey Shore left four people dead and one injured. News outlet headlines reported on the "New Jersey Man-Eater" and President Woodrow Wilson called a cabinet meeting to kill all the East Coast sharks. That year saw an unprecendented 10 shark attacks in the USA.

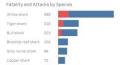
These events later inspired the renowned 1951 movie Jaws, cermenting shark's brand as humanking's mortal enemy.

#### How dangerous are sharks, really?

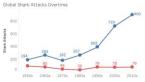




Despite their reputation, out of 4675 global incidents since 1950, 15% of shark attacks have been fatal (645 people, average 6 fatalities a year). Compared to the 1.35 million jobal fatalities from car accidents per



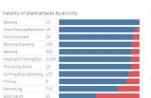
White sharks, Tiger sharks and Bull sharks are reported to have attacked most since 1950. However, some reports are speculations as the reports are publically sourced.



#### Non-fatal shark attacks on the rise

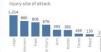
While fatal shark attack numbers remain constant in the last 3 decades, the number of unprovoked non-fatal shark attacks have increased to 900 in the 2010s.

This has been attributed by experts to warming sea temperatures and the migration of people to the coasts, especially



#### Fatal attacks less likely in shallow waters

While shark attacks can happen during various activities, stranding yourself in deep waters or around their prey is more to result in an attack. Non-fatal attacks are more likely to be bruises or minor lacerations.



#### Sharks can be friends instead of foes.

Sharks are neither harmless as kittens or the man-killing creatures popular culture has made them out to be throughout the last 100 years. A more educated and informed understanding of these creatures will keep everyone safer as temperatures increase globally, and the space between humans and sharks continue to overlap.

Datassurce: Global Shark Attack File From Shark Research Institu

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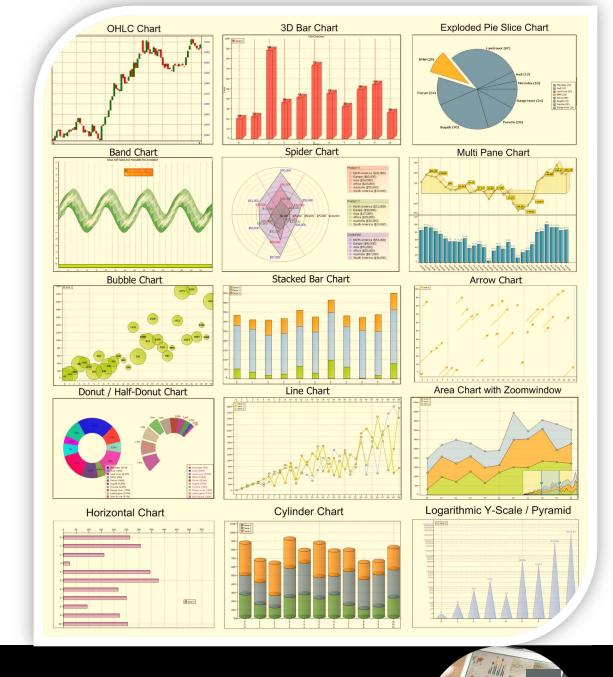






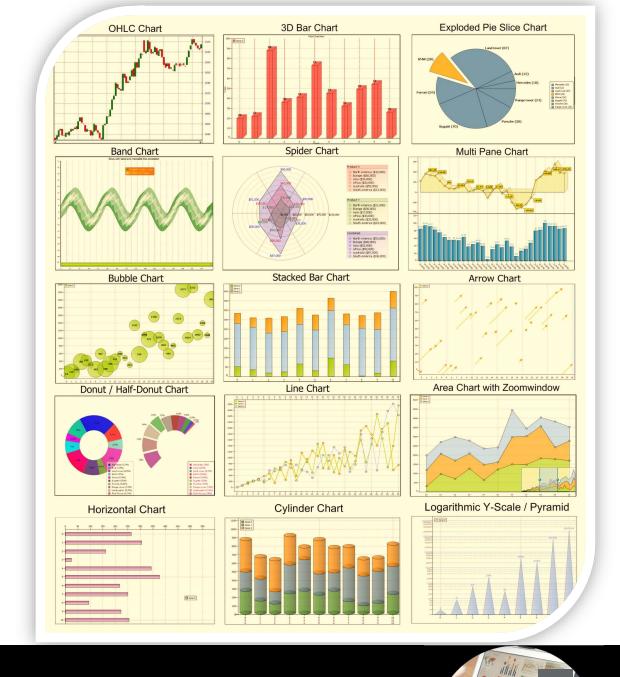


# Share your visualization!



If you want more feedback on your project, submit it to

abigail-stock@uiowa.edu by **Dec 1**<sup>st</sup> and the trainers will provide you with feedback.



#### **OVERALL VIZ CONSIDERATIONS**

- The chart highlights the most important finding
- Use the most appropriate chart type for the data you have (check out the chart choosers)
- Use the level of precision that your audience requires (only scientists get excited about decimal points)
- Create something meaningful—do not use defaults (EXCEL is your friend)
- Your use of color, text, graphics, arrangement all support what you want to communicate to your audience.
- Bring equity into your visualization!















# IOWA

# Thank you!

Institute for **Public** Health Practice, Research and Policy

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